

LIFE & HEALTH

THE NATIONAL HEALTH MAGAZINE



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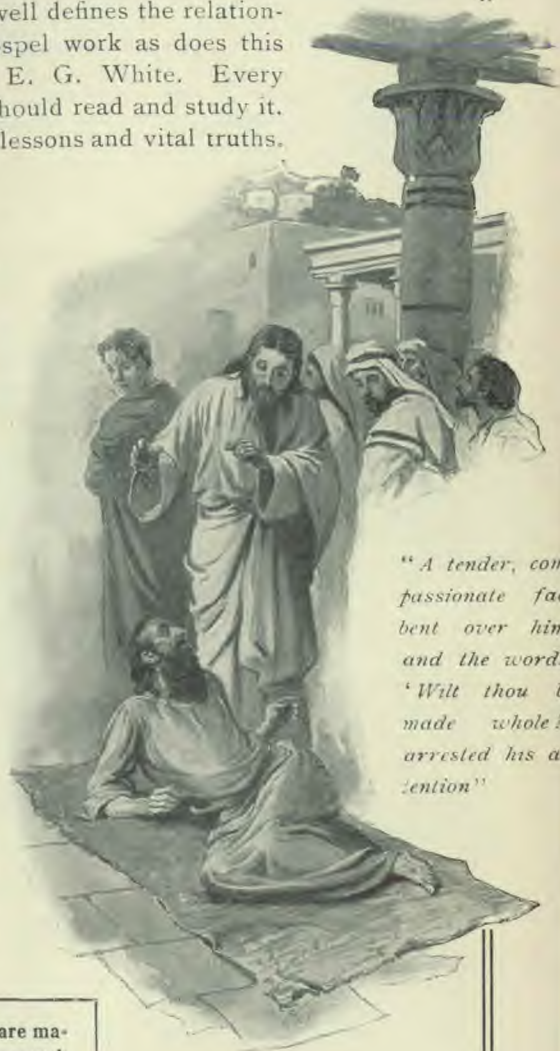
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LIFE AND HEALTH

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

Geo. H. HEALD, M. D. - - - Editor
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Many have expressed a deep interest in the articles by Mrs. McKee and in her work for girls. Another article will follow, giving more particulars in regard to the founding of this important philanthropic work.

The series on bread making, by Mr. Cornforth, begun in our last issue, is complete with this number. The first article was well received, and has called forth a communication on the subject of breads from Mr. Charles Cristodoro, whose experimental work and studies in breads and bread making entitle him to write with authority. His article will be read with interest by every housekeeper, and by many who are not housekeepers.

Mr. Herbert M. Lome furnishes the last, and best, of his series—"Mental Aspects of Physical Culture." Those who have had the benefit of the previous articles will be certain to want the entire series.

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Vol. XXV Takoma Park Station, Washington, D. C., February, 1910 No. 2

As We See It

The Carnegie Institution, of Washington

THE frontispiece gives a view of the administration building of this institution, recently completed and opened to visitors on December 15, 16, and 17. The institution was founded by Mr. Andrew Carnegie, Jan. 28, 1902, when he gave to the board of trustees ten million dollars in five-percent bonds. In 1907 he gave an additional two million dollars.

The purpose of the institution is "to encourage in the broadest and most liberal manner investigation, research, and discovery, and the application of knowledge to the improvement of mankind."

Investigations in various departments are being prosecuted on land and sea all over the world. Among the departments may be mentioned the Department of Botanic Research, the Department of Economics and Sociology, the Department of Marine Biology, the Department of Meridian Astronomy, the Department of Historical Research, the Department of Terrestrial Magnetism, Geophysical laboratory, Solar observatory, Nutrition laboratory, etc.

Of special interest to LIFE AND HEALTH readers is the work being conducted at the nutrition laboratory at Boston, fully equipped for the most thorough and exhaustive investigations regarding human nutrition.

Another service rendered by the Carnegie Institution to medicine is the publication of the *Index Medicus*, an index of all papers of any value on medical and allied topics. Such a publication is invaluable to investigators; but there have been so few who could afford to subscribe that the *Index* has never been a financial success; and had it not been for the Carnegie Institution, it would undoubtedly have lapsed permanently.

✽

Shave off the Germs of Cold

A CORRESPONDENT OF London *Lancet* writes

that according to his observation clean-shaven persons are particularly immune to colds. His suggestion is that shaving the mustache is the removal of an object that is well fitted to harbor pathogenic germs and introduce them into the air- or food-passage. It is doubtful whether ordinary washing will disinfect a mustache.

But if this theory be true, why is it that women have colds about as often as men? Is it that the downy hair on the female lip needs shaving as well as the more luxuriant crop on the male lip? Possibly the mustache may be one cause for the propagation of colds, but we shall probably have to look for others before we succeed in eliminating the cold as one of our most common forms of illness.

Open-Air Schools OBSERVATION indicates that all city schools, and perhaps practically all schools, contain a certain percentage of pupils in the incipient stage of tuberculosis. When these have been segregated in open-air schools, there has been an immediate marked gain in nutrition. In some cases the gain has been so marked that the pupils have in two months been enabled to return to the regular schools; in other cases more permanent segregation is necessary. This means the saving of many lives which otherwise would almost surely be snuffed out just about graduation time.

✽

The Plague and Ground-Squirrels CONTRA COSTA COUNTY, on the eastern side of the upper arm of San Francisco Bay, is infested with the ground-squirrel, a rodent living in tunnels bored underground. This little animal has caused immense loss to farms, and now it is known that it is subject to bubonic plague, and that a number of cases of human plague are due to handling diseased squirrels. A strenuous effort is being made to exterminate the squirrels; for though they are not such a direct menace to man as the rat, yet they present the danger of starting a rat epidemic at any time. So far as known, those who have contracted plague from the squirrels have done so through handling the animals. Formerly they were much used as food, but the authorities have in large measure broken up this dangerous practise.

✽

Liquor Revenue Decreased "OUR friend, the enemy," is careful to remind us frequently that "prohibition does not prohibit." Well, perhaps it does not. But for some reason prohibitory laws are fought to the last ditch by manufacturers and dealers in alcoholic liquor. Another discordant fact is the report by

the commissioner of internal revenue that the revenue from whisky was more than five and one-half million dollars less during the fiscal year of 1909 than during the previous year, and nearly two and one-half million dollars less on malt liquors. This means a decrease of four and one-half per cent, notwithstanding all that liquor men have done to carry on an outlaw business in defiance of law and order.

With the decrease in liquor revenue, there is noted an increase in revenue from tobacco, indicating that some who have been deprived of liquor have taken consolation in tobacco.

✽

The Control of Narcotics NEW YORK STATE has a committee for the control of the sale of narcotics, consisting of business men, physicians, and ladies representing all parts of the State. They ask for no funds, and work without salary, and for this reason command more respect from legislators. They secured a law making it a felony to sell cocain except on a physician's prescription; but this law only partially remedies the drug evil, and the committee is working to obtain a law which will forbid the sale of all narcotic and habit-forming drugs, except on physician's prescription.

They failed to obtain such a law largely through the opposition of the State board of pharmacy, some of the men of this board manifesting an interest to protect such nostrums as Winslow's Soothing Sirup from restrictive legislation.

Even a law making it a felony to sell any habit drug except on order of a physician would be subject to great abuse unless some restriction were placed upon physicians; for we must say with shame that there are men who do not hesitate to prostitute the noble profession by selling morphin and cocain prescriptions to any who desire them.

The penalty for such perfidy should be revocation of license; for no man who so debases himself as to make his prescription pad an easy route for evasion of the law should have the authority to write prescriptions.

✽

Are the Tonsils Needed? DR. GEORGE L. RICH-

ARDS, ear and throat specialist in two Fall River (Mass.) hospitals, presented at the Atlantic City meeting in June, a paper on "The Present Status of the Tonsil Operation," based on a questionnaire; that is, it is in reality the consensus of the opinions of many prominent specialists on the subject. The writer goes into some detail as to the varying technique employed, what justifies an operation, etc. In conclusion, he admits that further study of the physiology of the tonsil is necessary in order that we may better know how important it is at certain periods of life. Among the conclusions, we note that the tonsil is an avenue for the entrance of the germs of tuberculosis and rheumatism, and undoubtedly other diseases. Removal is justified when the tonsillar condition is injuring the entire system provided the trouble can not be remedied by local means. He favors removing the entire tonsil with the capsule when possible.

✽

San Francisco Free From Plague FROM the reports of the government surgeons in that city it appears that San Francisco is again free from the bubonic plague, and because of the strict enforcement of rat-proof building laws, and sanitary laws, the disease is not very likely again to get a foothold. The battle against plague in the Pacific Coast metropolis was a war of persistence, determination, brains, and energy, and Surgeon Rupert Blue and his assistants deserve much credit for their successful campaign.

Working earnestly in co-operation with the federal surgeons were the State and city health boards, and the Citizens' Health Committee. Hundreds of meetings were held of schoolchildren, women's clubs, and various trade representatives. Money was collected, fifteen thousand dollars' worth of rat traps were purchased, and cheese was obtained in three-thousand-pound lots. More than twelve thousand dollars was paid in rat bounties. Citizens tore down old shacks, rat-proofed cellars, and cleaned up generally. In this way was averted a quarantine which would have set back the city, probably more than even the great earthquake.—Beg pardon, I mean fire.

✽

Typhoid in the District A RECENT bulletin of the Hygienic Laboratory

gives the results of the investigation of the prevalence of typhoid in Washington of the year 1908. This is the third report of the board appointed by the surgeon-general of the United States Public Health and Marine Hospital Service to make an investigation of the origin and prevalence of typhoid fever in the District of Columbia. This report shows for 1908 the following percentages: Infection outside of the District of Columbia, 21.80 %; infection attributed to milk, 7.82 %; infection attributed to direct contact with some typhoid patient, 17.14 %; unaccounted for, 53.24 %.

A number of outbreaks appeared on the milk routes of certain dairymen, and the proof is strong that the infection was through the milk. There is a striking relationship between the prevalence of warm weather and of typhoid. From the fact that the largest proportion of cases originating in the District where the origin is known, are due to direct contact, and because of the difficulty of tracing contacts in many cases, it is suspected that many more cases where origin is unknown may be due to contact.

The results of the examination of one thousand cases of persons apparently healthy indicate that the typhoid bacillus is more generally disseminated than is usually supposed. In other words, there are not a few apparently healthy persons who are typhoid "carriers;" and such persons might for years convey typhoid to others without the source being suspected. In one of the outbreaks attributed to milk the milk was infected by a "carrier;" that is, a person, who, though apparently healthy, has typhoid germs in his intestinal canal and passes them in his discharges. The report is rather non-committal regarding the part the water-supply plays in conveying infection. Though no typhoid is definitely traced to the water, it has not been positively excluded. Infection from this source, however, seems improbable with the present excellent system of filtration.

The investigators, Drs. M. J. Rosenau, L. L. Lumsden, and Joseph H. Kastle, find that typhoid excreta frequently are not effectually disinfected. They recommend more stringent legal control of this matter, and the recognition of typhoid fever as a "contagious" disease.

❖

Public Education Regarding Disease Prevention

THERE are two principal reasons why the average length of life is not considerably more than it is — ignorance and indifference on the part of those who should be the most interested. Much is being done to minimize these two causes of early death, with the result that in all civilized countries the average length of life is increasing. Governments, by means of research, by means of administrative control of epidemic situations, by the introduction of hygiene into the public-school curriculum, by the distribution of leaflets and the like, are doing much to enlighten the masses as to how to avoid many of the diseases which shorten life. The municipal bul-

letins and State bulletins issued by the respective boards of health are doing excellent service in this line. Just now the State board of health of California is making an earnest effort to awaken the farmers of the squirrel-infected counties of that State to the danger of human plague from these rodents, and of the necessity of a vigorous campaign of extermination. In the cities an important work is the instruction of mothers regarding the proper care of infants, in order to save infant life.

Another activity that is making for increased longevity is the plan adopted by the Provident Savings Life Assurance Society, of New York, which offers every one of its policy-holders a free medical examination once a year, and in addition, sends to each one, from time to time, a bulletin giving information regarding the causation and prevention of those diseases that do most to shorten life. By means of the medical examinations, patients apparently well, but who have the beginning of some grave trouble, are warned of it in time to take proper precaution while there is yet time to remedy the evil; and by means of the bulletins, many are given instruction which must result in the saving or lengthening of many lives. To the insurance company, it is a matter of business, for an increase in the average life of policy-holders is an increase in the profits of the company, but it is a benefit as well to the policy-holder, and to the country.

❖

Constipation in Children

ACCORDING to a recent writer in the *Edinburgh Medical Journal*, the cause of constipation in infants is often constipation in the mother, from inactive life or the use of tea. A common cause is deficient fat and excess of sugar in the milk. With bottle-fed infants, a frequent cause is deficient fat and indigestible casein. The remedy, according to

this author, is to dilute the milk and add cream. He prefers oatmeal-water as a diluent. Sterilizing the milk is one cause of constipation. In treatment, his advice is to use diet, always, in preference to drugs, for the latter require frequently to be increased in quantity. For occasional use, high injections of olive oil are serviceable. With older children it is important to insist on cultivating a daily habit. As a diet, he recommends porridge with golden sirup, brown bread with plenty of butter, green vegetables, fruit raw or cooked, limitation of milk, and avoidance of white bread and starchy food, as the main procedures.

✽

The Delectable Sausage

A SAUSAGE may be defined as "anything coming from an animal, ground up with spices, and incased in a piece of intestine." Harrington's "Hygiene," a standard work, has the following interesting information regarding sausage:—

"Many of the so-called Frankfurters sold at very low rates, and the cheap Bolognas, are said to consist largely of horse meat, immature veal, and the flesh of cows that are no longer in condition to produce milk. Certain it is that a not inconsiderable number of persons gain a fair livelihood by going about in the country buying up newly born calves and decrepit cows, tuberculous and otherwise, and horses, and that these animals are not taken to comfortable stables and inviting pastures, but to small slaughtering establishments, the output of which is not very largely butchers' meat. . . . Even sausages made from pork, especially those which have undergone a process of cooking before being stuffed, are not always beyond suspicion, for the trichinous pork condemned by government inspect-

ors at public abattoirs is neither destroyed nor converted into fertilizers, but is allowed to be sold after being subjected to heat sufficient to kill the parasites, and cooked pork is not commonly to be found on sale as such."

At the pure-food congress held last year in Europe, one of the main bones of contention was the definition of *sausage*. Some thought it should be confined to pork, others thought it ought to have a more inclusive definition, something like the one at the head of the present article. Certain it is that under the name *sausage* is sold about everything that comes from an animal, from all species of animals, from animals of all ages, from the still-born to those dead of old age, and from those having all kinds of disease. The sausage factories rob the fertilizer works of their just dues.

✽

Care of Food in the Home

THE United States Department of Agriculture has recently issued a pamphlet (Farmers' Bulletin, No. 375) entitled "Care of Food in the Home." This most excellent little treatise on domestic economy and domestic hygiene, which should find a place in every home, may be obtained by sending a postal card to the Department of Agriculture, Washington, D. C. Ask for Farmers' Bulletin, No. 375. Among the topics considered are: Yeasts, Moulds, Bacteria, and the Spoiling of Food; Flies and Food; The Food Supply; The Storage of Food; Handling of Food and Utensils in the Kitchen; Importance of Good House Plans and Home Conveniences.





What Boston Is Doing to Lessen the Hazards of Infant Feeding

John M. Connolly, A. M., M. D.

Assistant Physician for Children, Boston Dispensary; Physician Diseases of Children, Mt. Sinai Hospital; Medical Director, Committee on Milk and Baby Hygiene, Boston

THAT milk has often acted as a carrier of the infections of typhoid fever, scarlet fever, diphtheria, and other diseases, is so well understood that city boards of health now ask the physician, when reporting a case of contagious disease, to give the name of the milk dealer who supplies the family.

Here, then, for those interested in the reduction of infant mortality, is a most practical outlet for all the energy they are capable of exerting in instituting a campaign of education of the milk producer and the milk dealer, to the end that fouling of the milk by bacterial life be minimized to the utmost. For the diminution of infant mortality a proper

food is, as we have seen, of prime importance. For this food a supply of clean cow's milk is in an increasingly large number of cases absolutely necessary. In the production of this clean milk, the intelligent, enthusiastic co-operation of the dairyman is indispensable. To this end he must be educated—he must know what milk is, what bacteria are, how they are introduced into the milk, how they are propagated, how dangerous they are to the babies, how dependent hundreds of infant lives are upon his conscientious and loving care. The farmer must be shown that he is a member, by no means the least important, of a series of workers upon whose painstaking efforts the helpless infant is



Stallway of one of the farms supplying committee's milk, just before cows enter. This room is kept sweet and clean, and produces milk normally under 50,000, usually under 25,000, and frequently under 500 bacteria per cubic centimeter. Room is whitewashed every two weeks, or oftener if necessary. Shavings used for bedding. Trough for offal, with drop-doors carrying offal to the tanks below. This keeps underpart of barn sweet and clean, and saves the manure for fertilizer, and prevents the breeding of flies

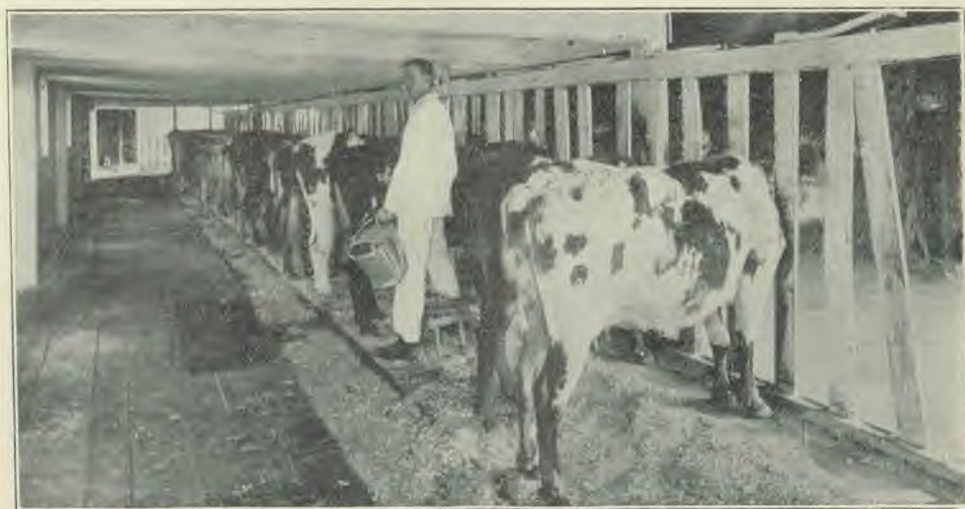
dependent for his very life. With his work thus dignified, every detail assumes a new importance, and every effort made to assure the purity of his product redounds to his own satisfaction and to his pride in his career.

The modern up-to-date dairyman knows that milk is a most excellent material for the growth of bacteria, that the excrement and mud adhering to the hair of the cow constitute a most abundant source of bacterial supply, that milk at the temperature of the body affords much more suitable conditions for the rapid growth of bacteria than milk that is rapidly cooled and kept so. He, therefore, as a result of this knowledge, takes care to keep his cows out of filthy surroundings, to curry and brush them and to wash the udder and teats before milking. To facilitate the cleaning of the udder, he keeps the hair thereof clipped short. He does not do his currying and brushing immediately before milking, but allows time for the bacteria-laden dust to settle to the floor. After the cows have been cleaned, he does not allow

them to lie down and become soiled before they are milked; to prevent this he restrains them from kneeling on the forelegs, by means of a light chain or rope passed under the throat and affixed to the stanchion. He sees to it that hay is not fed to the cows until after the milking is finished, in order that its dust may not contaminate the milk with its manifold germ life.

He insists that his milkers be sound and free from disease. He does not allow them to spit about the barns. He has them inspected regularly by a physician, and takes particular care to exclude those who have even a slight sore throat. He insists that they wash their hands before milking. He provides them with clean overalls and coats, and insists that these be used during the milking period. He provides them with milk-pails designed to exclude bacteria, while allowing the milk to enter. The milk-pail and all the other utensils with which the milk comes in contact he thoroughly cleanses and carefully scalds or sterilizes.

He cools the milk as rapidly as pos-



Ready to milk. The Chute milk-pail. This pail greatly lessens the chance of milk contamination from the dust on the cow. Cows tuberculin tested twice a year. Note all cattle standing. Coming in, they are fed grain, and neck chains are fastened across in order to prevent lying down. They are then brushed down, and their udders wiped with a clean, wet towel. The farmer then washes his hands, and puts on his clean milking uniform. As each pailful is milked, it is taken to the strainer, from which it flows through a tube to the next compartment to the cooler

sible after it is drawn, by one of the modern milk-coolers, or in some other satisfactory way; and he keeps it cool. His whole aim is to draw the milk under clean conditions, and to keep it clean; and to that end his cows, his milkers, his utensils, his barns, his whole equipment, are carefully designed. This does not necessarily mean that he must have very expensive buildings. Fortunately it is the man more than the buildings that controls the quality of the milk; and many a man working in an old building which he has adapted by comparatively slight structural changes, by introducing proper floors and stanchions, and keeps sweet and light by frequent whitewashing, by excluding flies, and by exercising *care*, is to-day producing a higher grade of milk than other less careful men, though provided with the most modern equipment.

So we come back in the end to the education of the individual milk producer as one of the most essential factors in the situation, and to the not less essential education of the public to the absolute

obligation of paying for this necessary care.

In the city of Boston, under the auspices of the Committee on Milk and Baby Hygiene, there has been introduced this year a campaign in the interests of clean milk and the protection of infant life through the education of the mothers. This committee provides a lecturer who goes about to the various country centers whence the city's milk comes, and by means of talks, illustrated by stereopticon views, educates the farmers as to what is demanded of them, thus forming and developing their "hygienic conscience."

Milk to be modified for the babies is taken from two farms exclusively, and these are under the rigid inspection of the committee, and subject to their frequent, unannounced visits. A well-equipped laboratory is maintained in which this milk is properly modified in four formulas, and distributed at cost from ten stations located in different parts of the city. At each of these stations a trained nurse is in attendance, who devotes her whole time to the com-



Milk-room, showing cooler and ice-chest. Note the Chute pail, two thirds covered. With this pail there is only one fourth the bacterial count of an open pail under the same conditions. All windows are provided with screens, and doors with springs, to keep the room free from flies and dust. Milk produced in this manner is normally under 50,000 count, and frequently under 500. Milk on the ordinary farm usually runs from 200,000 to 5,000,000 bacterial count.



Consultation on nourishment and care of infants, Boston. The nurse is about to demonstrate method of preparing barley-water. After teaching a group of mothers, she visits them at their homes and watches them carry out the lessons learned, giving additional instruction where necessary. Note three mothers nursing their babies. All are encouraged to do so, as far as they are able. Eighty mothers during the last three months have been persuaded to entirely nurse babies which they had begun to wean

mittee's work. She dispenses the milk each morning, and is present at the conferences for mothers which are held in each station. To these conferences each mother comes weekly with her baby, and meets the physician in charge of the conference. The baby is stripped, weighed by the nurse, and examined by the physician, and a record made on a blank card, which is uniform for all the stations. The mother is instructed in the hygiene of infancy, her mistakes are pointed out, and she is told just what to do, and is shown how to do it. At these conferences the modification is adjusted to suit

the baby, and changes in the strength of the food made as needed.¹ The nurses afterward visit each case weekly in the home, see that the directions given by the physician at the conference are carried out, demonstrate the home modification of milk, the preparation of barley-water and other foods, and give what help and instruction prove to be necessary.

At the conference the physician fre-

¹ Sick babies are not treated, however, as Boston is particularly rich in children's clinics, to which the children of the poor are referred. Those who are able to pay a private physician are sent to him if the infant becomes sick.



Consultation on nourishment and care of infants at one of the Boston stations. Standing in the background is Dr. Connolly, medical director, and writer of this article. The nurse is weighing a particularly unfortunate child, which, with good care, should soon look as well as the baby at the extreme left

quently gives a short talk or demonstration to the mothers present, based upon the mistakes they have made, and designed to prevent common errors; or at times he keeps up a running fire of comment on individual cases, that all may learn from each.

Cards of directions in three languages are given out, and the different physicians, twenty in number, are able to speak to the mothers in their own tongue.

The greatest care is taken to encourage breast-feeding, and during the summer it has been possible to persuade eighty mothers who were employing mixed feeding when they first came to the milk stations, to go back to exclusive breast-feeding, to the great advantage of their babies. To this end, whole milk of high grade, for the mothers' consumption, is furnished to them at cost.

The results of this campaign of education have been most gratifying. Since June 24, 1909, when the first conference was held, eight hundred four babies have come under the care of the committee, and these have been in all stages of health and disease, some very ill, sent with prescriptions from private physi-

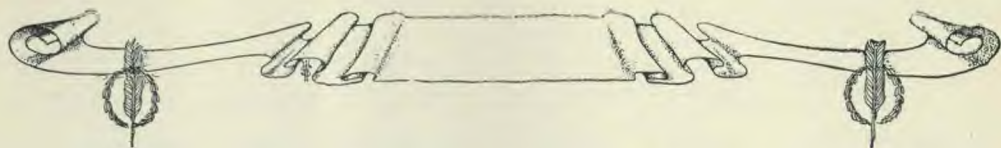
cians or hospital clinics. Of these eight hundred four babies, twenty, or two and one-half per cent, have died. When it is understood that the infantile death-rate in Boston is fourteen per cent, the striking influence of the committee's work becomes evident.

It will be seen, by a moment's consideration, that this plan, now in successful operation in Boston, contains all the logically necessary elements for a proper solution of the problem of infant mortality. By its education of the dairymen it takes steps toward securing the first necessity — clean milk. By the careful modification of this milk, under proper conditions, it is able to furnish a suitable food of high purity for the infant. By its education of the mother, first, in the importance of breast-feeding, and when this is impossible, in the care and proper modification of milk, regularity of feeding, and skilfully adjusted strength and quantity, for the individual child, it wards off many of the dangers with which well-intentioned ignorance too often assails the infant. By its insistence on fresh air, cleanliness, and hygiene,

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Doctor obtaining child's temperature and pulse. The baby was brought into the station practically dead. Nurse made two or three visits daily; doctor saw baby nearly every day, and by heroic work they succeeded in saving it and restoring it to health. This picture shows the baby after six months, above normal weight and in fine condition



That Boy of Yours—No. 1

H. T. Musselman, Editor of the "Youth's World"

Your boy is here. Nothing is more certain to you than this fact. Have you stopped long enough to ask what he is, what he is likely to become, and what you can do to help him in becoming what he should be? In this series of articles (personal talks, I should prefer to call them) we shall try to help in the answer of these all-important questions. The point of view of the discussions will be scientific, and the methods of treatment suggested, vital. In other words, we shall point out the facts furnished us by the psychology of childhood and adolescence, and, on the basis of these psychological, or soul facts, suggest methods of treating and training the boy which will be in keeping with his nature and needs. The style will, of course, be non-technical.

What is a boy? By the boy we shall mean, in these articles, the boy who knows himself to be a boy. We are not dealing with the boy as a child but as a youth—let us say, for clearness of thinking, the boy in the early adolescent stage, from twelve to seventeen or eighteen. The birthday of a boy is when he awakens to the distinct consciousness of sex and self, and begins to assert his own self-conscious individuality. Of course, we shall approach the boy problem through the years of infancy and childhood, taking as our first topic "The Background of Boyhood." The other topics that will be treated are: "What a Boy Is Made Of," "The Interests of a Boy," "The Sins of a Boy and Sins Against the Boy," "The World Your Boy Lives In," "The Gang Instinct and What It Is Worth," "Boys' Clubs Within and Without the Church," "The Place of Play in Boyhood," "The Big Brother and the Boy," "Altruism—the Gospel of Boyhood," and "Purity and the Boy's Preservation."

What is said above is a kind of foreword to the discussions in the articles named. As Robert Louis Stevenson says, it is very difficult for a writer "to forego the privilege of a preface." It does seem that he must build some kind of an approach to the subject which he is set to discuss. With these few opening words, we shall take up the topics before us.

The Background of Boyhood

CHILDHOOD is the dawn of youth, and youth is the early morning of manhood. Moreover, life is an unfolding process, and part of the past to all the present cleaves. Since this is true, we must study the forces which contribute to the life of the boy during the years of childhood. Indeed, we must not overlook the influence of physical heredity. Many of the characteristics you may so dislike in your boy were put there by other hands than his or even yours. Notwithstanding the superior influence of environment, the great law of physical heredity yet holds. All

our space permits here is to call the attention of parents and workers with boys to this fact and urge upon them the necessity of studying the forces of heredity if they would know completely what the boy is and how to treat him.

Passing over physical heredity, we shall mention only a few of the most important forces which have been at work making their contribution to the life of the boy during the years of his childhood. These forces may be stated as follows:—

1. *Food.*—We do not know the origin of life, but all life grows by feeding. The first interest of nature in life seems

to be centered in the stomach. Long ago, the wise man prayed, "Feed me with food convenient for me: lest I be full, and deny thee, and say, Who is the Lord?" That is the first petition of all life, and the first step in the making of a boy is the proper care of his stomach. Moreover, the moral character of that boy of yours will be greatly determined by the kind of food which has been given to him during the years of infancy and childhood. The first means of grace is a good digestion. Many a boy has gone down to moral destruction by reason of a body so weakened by improper feeding in childhood as not to be able to withstand the temptations of youth, and many another boy is trying the patience of parents and teachers for the same reason. What we plead for here is that you will recognize the influence of food on the life and character of the boy, and before charging his sins up to demoniacal possession or total depravity

seek to find out whether the cause be a deranged digestion. With the many magazines dealing with the question of life and health, and with the many books written by competent physicians and psychologists dealing with the same subject, there is absolutely no excuse for ignorance in these matters to-day. A word to the wise parent or teacher is sufficient here.

2. *Sensations*.—Prof. Thiselton Mark says that if he were asked to interpret child nature in a single word, the only word that would meet the case is "hunger." This hunger is not for food alone. The nervous system of the child is constantly crying out for stimulation—in other words, for the thrill of sensations,

Many of the instinctive and reflexive movements of the child seem to have for their end the obtaining of sensations. This is life's first vague hunger for knowledge, for knowledge begins in the sensations.

The sensation process and equipment may be described briefly as follows: "Some object in the external world comes within the range of the activity of

one or more of these senses. Instantly a nervous excitation is occasioned. The nerves of the senses affected carry the impression made upon them to the brain. This impression is a sensation. The body is literally packed with these sensation-carriers. Taken as a whole, they are the nervous system. This includes the brain, the spinal marrow, ganglia, the nerves proper, and the senses."

The point which we wish to make here is that the kind of sensations which have entered into the soul of the child will



MAMA'S PRIDE

determine in a large way the content of the boy's mind we are studying. One's disposition, or spirit in reacting to environment, is due, in part, to one's sensation life. If a child has been submitted to all kinds of jangling noises, discordant colors, rough handling, and the like, these impressions are treasured up by the nervous system, and, through the consequent perceptions, the soul of the boy is marred. When we consider the millions of sensations which are received during the stage of childhood, we can realize the supreme importance of studying this force in the background of boyhood. If we know the sensation atmosphere in which a boy has been brought up, it will greatly help us in finding the points of contact with

his personal life, and thus enable us to get in closer personal touch with him.

3. *Play.*—The background of boyhood should be filled with healthy play. Pre-eminent in the educational world stands Froebel, and he made play the chief instrument in the training of the child. Not only does play have a large educational value in the infancy stages, but throughout the years of childhood. Fortunate indeed is the boy

who has been taught many games, especially the out-door games. Besides the development of his body, it fills his soul with pleasurable experiences and so gives it a tone of contentment and good will. The first playfellow of the child is, of course, its mother, but that boy is to be pitied who has not had a father with the genius to become a boy again at will and so enter into the play life of his child. Every successful worker with boys must have enthusiasm for play, and in seeking to find out the characteristics, interests, and aspirations of boyhood, acquaint himself, as thoroughly as possible, with the kinds and amount of play which entered into the boy's life during the years of childhood. Without this knowledge of the play life in the background of boyhood, we shall never be able to understand the boy fully. Our first task in training the boy is to come up to our problem through the life currents of his past life, of which impulse to play is chief.

4. *Imitative Activity.*—The first instinct of childhood is activity. Much of

this activity is instinctive or impulsive. Much more of it is due to imitation. The life of the child is largely a reproduction of the sounds, movements, words, and deeds of its environment. Ninety per cent of the things you will discover in your boy have been copied through imitation. Indeed, the same might almost be said of man. Most of our personal possessions and achievements were attained through imitation.

Much of what seems original with us has been unconsciously copied. Emerson said, "Other men are the lenses through which we see ourselves." Other men imitated the things in their environment, so did we. What we can not see in ourselves because our eyes look outward, we can see in others. Indeed, we can see most of ourselves in our boys. Many a man beats his boy for the very thing which the boy has copied, consciously or unconsciously, from him. Before



GREAT POSSIBILITIES

condemning the boy, it would be well to ask if the thing so displeasing to us now did not come out of the background of his imitative activity—the example of which was furnished by our own words and deeds.

All of this shows how we, as parents and workers with boys, must look into the examples of activity set for the boy's imitation in the days of childhood. With what sort of words and deeds was he surrounded in those imitative and impressionable days? that is the question. Take

a long look into the world of action in which your boy has lived through the years of his childhood, and, unless we are very much mistaken, you will have more patience with him now in his trying teens.

5. *Reading.*—The later years of childhood have been called "the reading age." Moreover, they are the golden period of memory. This is to say that a child's reading forms a large part of the background of youth. Our space forbids a discussion of the kinds of reading adapted to the life of the boy in the closing years of childhood.

Here, as in the other forces we have mentioned, we simply wish to stir up your pure minds with the necessity of knowing what the boy has read in those years, if you would understand your boy fully and learn how to treat him. Remember his thoughts, feelings, and aspirations are all colored by what he has read. In many cases, the most determinant things in his present life were put there by the books he has read. The later background of a normal boy's life is literally lined with books. It is your place and mine, as worker with boys, not only to know the name of the books read, but, as far as possible, what they contain. It may be

a difficult piece of work, but it is a part of the price we must pay if we would win out with the boy.

6. *Personal Association.*—We have already

passed the limits of space allowed for this article, but we must mention the influence of personal associations. The greatest force in the background of boyhood is his childhood companions. "Character is caught, not taught." This has been suggested in what has already been said, but we must call attention, at least, to the school life of the child. Here the past association of the



THAT BOY OF YOURS AT THE DAWN OF YOUTH

teacher and the child and of the child with other pupils must be taken into consideration if we would understand the boy before us. These personal companions have all mingled their spirit and ideas with the spirit and ideas of the boy as a child. One of the greatest sins of parents against childhood is their constant neglect to know just what sort of influences are at work in the school life of their children. He who neglects to measure the power of these personal influences will fail in his efforts to solve the boy problem.

In the above discussion we have not described the characteristics, interests,

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Personal Experiences With Girls

Mrs. W. H. McKee, Matron Michigan Home for Girls, Byron Center, Mich.

[In a letter telling of some of the harrowing incidents that have come under her observation, Mrs. McKee says: "The punishment of many a poor girl is, I believe, greater than her sin. She has the sense of her shame and dishonor, feeling that every one who looks at her reads her secret. Then the love, often, for the man who has abused her love, and the mother-love for her child,—to be given up because of her inability to keep it and meet the world's scorn with it,—it is a bitter punishment. But right at this crisis in the girl's life is the turning-point in her career. The right influences *now* will, in nine cases out of ten, turn her from a professional life of sin. Few get such help at this crisis. They become utterly discouraged and reckless; and the more *mentality* and *spirit* a girl possesses, the quicker she goes down, and the worse woman she becomes." It is to prevent such disasters that Mrs. McKee is conducting her rescue home. It is emphatically the work of the Master to save the fallen, and lift up those that are cast down. Every person connected with the Home in any capacity works without compensation.—Ed.]

REALIZING that thousands of girls would be different, had they been given the right kind of home training, I desired, years ago, to have a home large enough to welcome in any dear wanderers who might be seeking a better way, but who did not know just how to find it. In God's merciful providence he gave me my heart's desire, in providing a shelter from the world's pitiless storms for *somebody's girls*; and it has been my happy privilege to minister to many.

A bird's-eye view, as it were, of the lives of some less fortunate than others, though just as worthy of better things, may soften some hearts, and show a glimpse of some of our social needs, and also of the blessedness of Christian service. Some experiences are too distressing to print for the public eye; others are locked safely within the heart—known only as a memory, by those who ministered.

One day a prominent lawyer called me up and asked me if I would go quickly to a certain residence, as a young girl there was going to the river to drown herself, and the woman for whom

she worked did not know what to do with her. I hurried to the house, and found a sad spectacle. The poor girl had been overcome in sin, and the discovery made it impossible for her to remain in the household. Weeping bitterly, she said between her sobs, "I've no home, no friends, and in my disgrace I may as well throw myself into the river."

I told her of our Home for just such distressed ones, and said, "My carriage is here, at the door, my dear, and you are welcome to come with me to a home Jesus has given me for *you*, in this your time of need." The woman encouraged her to trust me as a friend and to go with me, and she came. I told that poor despairing girl of a Saviour's love, and as I entered with her into our cheerful, God-blessed Home, our workers gave her such a cordial, loving welcome that the poor child, in grateful surprise at finding such unexpected friends, wept. She said to me the next day, "Mama McKee, I didn't believe *any one* would be so kind to me. I feel that I am among friends!" As we knelt at family worship, we asked Jesus to bring

to this poor burdened soul the sweet rest and peace she needed; and while our dear girls were singing those precious hymns of "Christ in Song," the tears ran down those pallid cheeks; and looking at her, I thanked God that he had permitted me to prevent this girl from filling a suicide's grave.

Then medical care was given this dear one. Her physical needs were lovingly attended to by our physician and nurse. This, with patient disciplining of her will and spirit, and faithful teaching of God's truth, was the influence used to lift her out of the pit into which Satan had plunged her. And these influences were not without results, strengthened, as they were, day by day, week by week, by precept and example and by personal contact and individual concern for her, thus leading her to realize that *she*, as well as we who cared for her, had a soul to save or to lose.

Hope, desire to live, courage, and self-respect came back. The woman received her back to her home, and has since taken a deeper motherly interest in the girl's welfare; and she is to-day, and has been for two years, a member of that household, trusted and respected, — a sadder and a wiser girl, sobered by her terrible experience, profiting by what she learned at so fearful a cost, and *still* the subject of God's tender love and care.

What our boys and girls *need* is a *home* in all that that word means. There is a vast difference between good impulses and character. To build character is the chief business of life, or should be. But in the hurry of everyday life, this chief jewel is lost sight of to a serious degree. Our experience here leads us to seek to do a thorough work with the few, rather than a superficial work with the many. Skimming over the surface of character-building is not sufficient, and many parents sense

this fact too late. God helping us, we shall always be glad to enable others to see the importance of this vital matter.

I received a letter one day asking me to call at a certain hotel at a certain room to see about "an unfortunate." The lady inquired anxiously in detail as to our Home and its influence and plan. She was poor, a working woman, and I supposed she was making inquiry for some one in whom she was interested, as she spoke of "my friend." After thoroughly satisfying herself as to the propriety of the Home, she said to me: "Mrs. McKee, this 'friend' I've been talking about is my own daughter." Her face was wan and pale, and no tear moistened the stony eye, which had been almost petrified with the grief in that mother heart. My own ached with hers, as silence sat upon us. The story of that woman's sorrow, ignorance, and environment was the old story of so many homes. Petted, humored, and allowed to have her own way from babyhood, this daughter had grown up to a beautiful physical girlhood of sixteen, but with her own will uncontrolled, and her habits those of disobedience to parental authority, and love of pleasure and gay company, until the distressing result had come. The blow had fallen, the *worst* grief to the mother heart had come, the *worst* trouble a girl can know. Why? — Because of lack of Christian influence and training in the early child life, and this because of ignorance and possible false modesty on the part of the parents, chiefly the mother; for she it is who holds the key to the hearts of her children, and must use it to influence their minds for purity in early child life.

Another case in point. A mother brought her daughter to me, saying, "Mrs. McKee, I am helpless to take care of my girl as she ought to be trained. She is getting beyond my control. Will you take her into your Home

and give her the training your other girls are having? She *needs* just such an experience, and it may save her from ruin. I am troubled about her future, and it will relieve my mind if you will help her." We took this girl in, and God helped us to do preventive work before the real reformatory work was needed.

A broken-hearted father brought his motherless girl to us for a mother's personal care in her dishonor. Tears and sobs prevented this poor working man from telling his sad story. I said, "Never mind, my brother, to tell me more, I understand. Jesus loves your girl, and knows all your heart suffers. Let us ask him to help your little daughter [seventeen years old] to be a better girl and be a comfort to you and an honor to her own womanhood." We prayed, and the man went away cheered that his child was with Christian people.

The result of prayer and Bible study, healthful living, and the teaching of God's grand truth for these days, is nowhere more powerfully witnessed than in our Home life. Seventy-five per cent of those who come to us, receive into honest, attentive hearts the seeds of truth. In the happy experiences of reunited families, where girls have been outcasts and wanderers for years; in honorable marriages (where the facts of past mistakes are not hidden but frankly confessed) and resulting happy homes, we have occasion to rejoice. Where before a hopeless, wandering life of sin was the only outlook for many, now they are filling positions of usefulness and honor in the world's work. Is the work blessed? None more.

In conclusion, I wish to mention one joyful experience which will ever be a source of gratitude, and which alone pays us for all our cares and struggles to maintain this Home. A girl who had been washing dishes in a little hotel in a small town wrote me that she was in

trouble, and wanted to come to the Home. My letter telling her she was welcome brought her the next day. She came while I was out seeking financial aid to care for our family of eighteen girls. She lay down on the lounge in the sitting-room and fell asleep. As I entered the room, I stood and looked at the sleeping girl, and I said: "Poor child! How terrible to be in her place! God pity her and help me to do a mother's part by her." While I was looking at her, she awoke, and I began removing my bonnet. I greeted her, and said: "This is my new daughter, is it? Well, dear, I am glad to see you, and I hope you will enjoy your new home. I can't go out to the Home with you today, but you may ride out with Miss Henry, our teacher, and I'll be out in a day or two." We were then at our receiving Home in the city. On returning to the Home two days later, one of our older girls said to me aside: "Mama McKee, that new girl said to me such a funny thing. She said, 'Mrs. McKee called me "*dear!*" Does she call the rest of you "*dear*"?' On being assured it was so, she said, 'Well, my own mother never said "*dear*" to me in all her life. It's the first kind word I ever had.'" My informant added, "Maybe if her mother *had* said '*dear*' to her once in a while, she wouldn't have had to come here." Possibly so.

Days of personal talks in my own room, prayer, counsel, reproof, discipline, and all the varied threads woven in the loom of character went on day by day: in the schoolroom, where the precious light of Christian education shone so brightly; in the kitchen, where the patient and faithful house matrons instructed in healthful living and practical work; and in the garden and field, the influence was softening this girl's hard heart, and refining her coarse, depraved nature.

The association with those who knew God, and with lives fragrant with love, won this girl's attention to her own soul's need. She gave her heart to Jesus, and manifested such a change that all knew it was a reality. She went home on a vacation to carry her Bible to her family, writing me later, "My father, mother, brothers, and sisters need what I have received." She asked permission to return to school the following fall term. She came, but after a few weeks of faithful work in school and the Home, the doctor told me one day that she could study no more, that if she had a home to go to, she had better go at once. I secured a ticket for her, and went with her into the train until it started. I never saw her dear face again. She lived just three weeks. Her mother wrote me beside her death-bed at midnight, that she died with a knowledge of forgiven sins and the hope of eternal life. The knowledge of the great love of Jesus had come into her poor darkened mind, for she was one of *two* girls in our Home who had had no sense whatever of who Jesus was, had only heard his name in street blasphemy,

and had never been inside a church or Sunday-school,—as veritably heathen as any in darkened lands. To this dear lost one came the blessed hope.

Her father wrote me details of her last illness, and told of his gratitude for what we had done for his child. He closed his letter with the words: "Good-by deer solger of the cross may God bless yer and spair yer life to help menny moar—and give yer a reward up yonder." The words in this letter were not correctly spelled, and the construction of the sentences was not the best, but as I shed tears of thankfulness for the privilege of such a ministry, and for the precious letter, I said, "There are some things that money can not buy."

O vision of rest to the tempest-tossed soul!
O life, pure and true, with heaven its goal!
The anchor of Hope holds fast in life's storm,
By Love's golden chain, so tender, yet strong!

And bright rays of light
Shine out in the night
Across the dark waters of sin.
The struggling and lost catch the rope that
is flung,
The life-boat bears safely within
The harbor of peace
With happy release,
And the song of deliverance is sung.

That Boy of Yours

(Concluded from page 84)

aspirations, and needs of the child itself. That is not our task. We are to discover and discuss these things in the life of the boy. The aim of this article is simply

to point out the forces, as said above, which contribute to the content of boy life—in a word, to give us the proper approach to the boy problem.



Physical Culture and Its Advantages to Women

Herbert M. Lome

APART from its healthful influences, physical culture of a sensible sort makes for comeliness, if not actual beauty. For this reason its practise is of peculiar import to women, inasmuch as a desire to be physically attractive is a predominant instinct of the sex.

This instinct has a sound physiological basis. There is a natural law to the effect that whenever a thing or being is thoroughly adapted to the use or purpose for which it has been created, it must perforce be beautiful. The flight

of swallows; the antlers of the buck; the development of the race-horse; the sailing ship with all her canvas unfurled; the lithe movements and marvelous markings of the tiger or leopard; the grace of the *premier danseuse*;

the arms, domestic utensils, dress, and architecture of the classic Greeks, all, in turn, attest the esthetic charm which is born of color and contour wedded to use.

Now, if we would apply the tenets of

this law to woman, we must first of all determine the object of her creation — the most manifest intent of nature in regard to her. Having done this, let us ascertain whether she, through the medium of her physical being, suggests that she is fitted for this object. And we shall assuredly find that the more marked are the external tokens of her being that which her Creator intended she should be, the more beautiful she is in body and mind; for a normal body makes a normal mentality, and as normality is harmony, the healthy woman must needs be a harmonious and happy woman, which is the same thing as saying that she makes those happy with whom she comes in contact. Herein lies

the value of physical culture, because it is the source of health and therefore beauty. That woman is man's truest helpmate; that it is her privilege "to warn, to comfort and command," goes without saying.



EXERCISE NO. I

Sit sidewise on a chair, and then, bending backward and to the right, place the right hand on the nearest leg of the chair, and at the same time put the right hand on the top of the chair, as shown in the picture. Now advance the face forward until it is near the back of the chair and under the left hand. Endeavor to "kiss" this part of the back of the chair, the same time maintaining your balance in the way shown. It will be found that this exercise brings into play nearly all the muscles of the body, especially those of the upper portion, including the muscles of the arms, the neck, and trunk. Retain the "kiss" position until you begin to feel fatigued. Then repeat some ten or fifteen times

the value of physical culture, because it is the source of health and therefore beauty.

That woman is man's truest helpmate; that it is her privilege "to warn, to comfort and command," goes without saying.



EXERCISE NO. 2

Kneel on the left leg, and at the same time raise the hands above the head, the fingers touching. Now sway backward as far as possible, keeping the hand in the position already described. At the point at which you feel that you can go backward no farther, make an added effort to do so. Next sway forward until the finger-tips are as near the floor as possible. Change, and kneel on the right leg, and continue the swaying backward and forward until you feel somewhat tired, when rest, and resume. This exercise can be done for fifteen minutes in the morning and about the same time at night. The movement is an excellent one for the muscles of the trunk and for those of the abdomen. It makes for general suppleness, and is good for those who suffer from headaches or constipation.

But her noblest function as woman is that of being the vehicle through which nature perpetuates the race. The conditions that surround her are constantly changing; her social or political environments may be modified with the passing of the years, but there remains through all these mutations, the incontrovertible fact that her part in the scheme of life is that of wife and mother. And around these two relations, cluster the most important actions and the highest incentives of existence. Bearing all this in mind, is it not well, nay, necessary, for woman to see to it that she is physically fitted

for the exalted purpose for which she was created? And should she not practise those habits of life that will enable her to develop wherein she is lacking, or to strengthen wherein she is weak? The reply is evident. And both underdevelopment and weakness may be remedied by a faithful observance of a few physical culture exercises of a simple nature.

What are the tokens of woman's fitness to discharge the special offices of her creation? Among them are a clear, wholesome complexion, betokening a pure blood supply; a well-developed neck, indicative of powers of assimilation; a firm and not overlarge bust that gives promise of a due supply of nature's food to her



EXERCISE NO. 3

Stand upright, the heels nearly touching. Now incline to the right as far as possible, and as you do so, let your left hand follow the curve of the body and head. At the same time bring the right hand up toward the shoulder, the fingers clinched, and the muscles of the upper arm clinched. Bend over in the manner shown in the picture as far as you possibly can, and hold the pose until you begin to feel tired, when come to an upright position. Repeat to the left, being sure that you go over as far as you conveniently can without straining yourself. This is another exercise which is good for the abdominal organs and for the muscles of the upper portion of the body.

offspring; a waist-line that is in proportion to her other measurements, so insuring the free action of her abdominal organs; a pelvic region of generous size and curve, guaranteeing her ability to endure the stress of motherhood, and a development in general in which each part of the body bears a fitting relation to other parts.

Given a woman who has the poise and carriage that arises from healthy organs of digestion and respiration, her cheeks clear, her neck rounded, her bust-contour graceful, her waist natural, and her hips large and evident, *and she will be beautiful.* Mere prettiness of feature may not be hers, but better still, she will be pos-

sessed of that comeliness which attracts in the first place, and holds in the second. In short, she is possessed of the signs which make the true woman, and so, without quite knowing why, we yield her that regard and affection and reverence which feminine comeliness of the kind in question always commands.

Unfortunately, the women who are thus beautiful are in the minority. Yet, with a growing understanding of what physical culture means to the sex, its principles are commanding increasing appreciation, and its precepts are becoming more and more crystallized into practise. Among the results are more pretty maids and comely matrons than

were in evidence a generation or so ago.

The president of a woman's college in New England recently told the writer that the average percentage of his students who are possessed of attractive faces or figures was fully one third in excess of what it was when the speaker, then a young professor of mathematics, first became a member of the faculty.

"Good looks are the rule rather than the exception in our student body," said the president. "And I attribute this to the prominent part that physical culture plays in our curriculum. The gospel of wholesome food, fresh air, and exercise is not only preached to our girls, but they are shown how to

practise its precepts in a thorough manner. The result is that when they are graduated, they are as fully equipped for the physical duties of life as they are for its intellectual."

Notwithstanding the importance of right living to the female sex in the way indicated, society sanctions many habits, fashions, and occupations that work havoc with girls and women alike. These harmful things are, in all cases, departures from the physical-culture rules of living. It follows that the bodily evils that are to be found in their wake, can be avoided if a return be made to the life natural.

The public school and the colleges are,



EXERCISE NO. 4

Lie on your back on a chair, the body balanced so that you will have no difficulty in maintaining your poise. Now drop the head downward, at the same time clasping the hand behind its back. Drop the head as far as possible, and next raise yourself to an upright sitting position. You will probably have some difficulty in executing this movement in the first instance, but after a few trials your muscles will respond to your efforts, and you will be able to accomplish the feat. This is a capital movement for the muscles of the abdomen and chest, and at the same time brings into play those of the legs. It is especially recommended to those whose sedentary occupations cause sluggishness of the excretory organs

happily, realizing the importance of the truths of physical culture, and are seeking to impress the same on the minds of their charges. But the moment that the wearer of petticoats obtains her graduation certificate or diploma, her struggle begins against the unhygienic influences that await her on every hand.



EXERCISE NO. 5

Inhale deeply, raise the hands above the head with the thumbs touching, and then gradually and deliberately lift yourself on your toes. Retain this position until you feel the need of a breath, when, as you exhale, lower yourself until you are flat on your feet, at the same time dropping the arms straight down to the side. This is a splendid all-round exercise, and not only has a beneficial effect upon the respiratory organs, but brings into play practically every muscle in the body. The movement also has a tendency to banish the feeling of fatigue, due to overstrain of the eyes, or mental or physical exertion. It may be practised at intervals during the day

tea for breakfast, lunch, and dinner; of the indigestible edibles of the *delicatessen* store and hasty "scrap-meals" when the men folks are absent.

If she be a working girl in store, factory, or office, her case is still more lam-

entable. To the bad effects of the inevitable coffee before and during work, will be added those of the "quick lunch;" of chewing-gum, of cheap candy, and a host of other things that make for troubles of the stomach, kidneys, and intestinal organs.

Women who know the art of thorough mastication are also much in the minority. The same remark applies to those who practise proper breathing or develop a correct carriage. Apparently, but few of the sex understand that a supply of pure air by night and day is an essential of healthful existence. The street-car or the railroad habit is rife among the sex. Wheels have, to a great extent, taken the place of legs, and we suffer in consequence. Walking is becoming a lost art because of the low fares and facilities offered by our public transportation corporations—and more's the pity that 'tis so. For walking is one of the prime preservers of health.

The corset; the high-heeled shoe; the dirty, dangerous device known as the "rat;" clothing that constricts the waist-line or interferes with the circulation in general; millinery that overheats the scalp or causes congestion of its capillaries; and cosmetics, "washes," face creams, and the like stuff are among the things that run counter to the physical well-being of the average woman, and are sowing seeds of ill health and unhappiness in her constitution.

At the desk, factory table, or in the store, there is a tendency to assume positions that interfere with correct breathing and the action of one or more of the internal organs. In multitudes of business buildings, there is a lack of proper arrangements for ventilation; this, in spite of elaborate factory laws. In the case of one factory known to the writer, there were, in eight months, seventeen cases of partial blindness among the girl

(Continued on page 115)



Yeast Breads—No. 2

George E. Cornforth

IT takes thought and care to make good bread; but there is more religion in a loaf of good bread than many think."

White Bread

- 1 qt. water
- 1 level tablespoonful salt
- 2 level tablespoonfuls sugar
- 2 tablespoonfuls cooking oil
- 1 yeast cake
- 3 lb. best bread flour

Dissolve the yeast in the water. Then add the salt, sugar, and oil, then the flour, which should be sifted, stirring it in with a spoon till it becomes too stiff to stir, when it should be taken out onto a floured kneading board, and the remainder of the flour added by kneading. The dough should be kneaded till it is perfectly smooth and does not stick to the board, but care should be taken to knead in such a manner as to get the dough smooth without adding more than the specified amount of flour. The flour should be first quality bread flour, such as Pillsbury's best or Gold Medal or an equally good flour. If a poorer grade of flour is used, more than six pounds will be required to make a dough of the proper consistency.

If a bread machine is used to mix the bread, the trouble of kneading will be avoided, and a dough of the proper consistency can more easily be obtained.

After the dough is made, place it in an oiled dish, which can be tightly covered, to rise. Set it where the temperature is from 75° F. to 80° F. It will take from three to three and one-half

hours to rise the first time. Allow it to rise till, when it is tapped with the backs of the fingers, a hole will fall into the dough, but do not allow it to rise till it begins to fall of itself. Punch it down in the middle, fold it in from the sides into a hard ball, and turn it over. It will take an hour or a little more to rise the second time. When risen the second time till it falls when tapped, it may be molded into loaves as directed in the last lesson; or, if very fine grained and light bread is desired, it may be allowed to rise once more before it is molded.

When the dough is ready to mold, divide it into one-and-one-half-pound pieces. This quantity of dough will make three such loaves, and half a loaf over. If twice this quantity is made, there will be just seven loaves. I am giving instruction to divide the dough into one-and-one-half-pound loaves, because a piece that size is just enough to put into a pan nine and one-half inches by four and one-fourth inches by three inches. One and one-half pounds of dough put into a pan this size is risen enough when the top of the loaf is about one-fourth inch above the top of the pan. It should then be put into the oven, and it will rise more in the oven.

If pans are used which will hold more or less than this, the size of the loaf may be varied to suit the size of the pan, because then one knows exactly when the loaf is sufficiently risen; there is no danger of allowing it to rise too much or too little.

The addition of scalded flour to the dough seems to improve bread, causing it to remain moist longer. When we wish to do that, we make a setting the night before, as follows:—

- $\frac{1}{2}$ cup sifted flour
- 1 cup boiling water
- $\frac{1}{2}$ teaspoonful salt
- $\frac{1}{2}$ teaspoonful sugar
- $\frac{3}{4}$ cake of yeast dissolved in $\frac{1}{4}$ cup water

Scald the sifted flour with the boiling water, add the salt and sugar. Allow it to cool to lukewarm, then add the yeast. Mix well, and allow it to stand overnight. In the morning mix the dough according to the directions given, using this setting and three-fourths quart of water instead of the one quart of water and one cake of yeast.

Bread seems to be improved by the addition of potatoes to the dough. The potatoes seem to make the bread lighter, and it retains its moisture longer.

Following is a recipe for—

Potato Bread

Boil and mash one-half pound of potatoes. Add to them the water in which they were boiled, and enough more water to make one quart and one-half cup of the mixture. Have this mixture lukewarm. Dissolve in it one yeast cake (a small quantity of the liquid may be taken out to dissolve the yeast in, because the yeast must not be dissolved in extra water), then add:—

- 1 level tablespoonful salt
- 2 level tablespoonfuls sugar
- 2 tablespoonfuls cooking oil
- 3 lb. bread flour

Proceed according to the directions for white bread.

Fruit Bread

Follow the recipe for white bread, adding three-fourths pound of seedless raisins when the dough is mixed, and using one-half cup of sugar and one-half cup of oil instead of the amounts given.

Corn Bread

- 1 qt. lukewarm water
- 1 yeast cake
- 1 level tablespoonful salt
- $\frac{1}{2}$ cup oil
- $\frac{1}{2}$ cup sugar
- $\frac{3}{4}$ lb. corn-meal
- 2 $\frac{1}{2}$ lb. white flour

Proceed as in making white bread.

Graham Bread

Follow the recipe for white bread, using two pounds of Graham flour and four pounds of white flour, instead of all white. A larger proportion of Graham flour may be used, but the bread will not be so light. However, there are some people who prefer Graham bread which is somewhat solid and has "something to it."

Sometimes, to make the bread look as if it were made with a larger proportion of Graham flour and still have the bread light, the writer uses the following mixture of flours:—

- 1 oz. wheat bran
- 2 oz. middlings
- $\frac{3}{4}$ lb. Graham flour
- 2 lb. white flour

This makes a bread which has a good flavor.



BREAD AND PLAIN BUNS

The quality of whole-wheat bread depends very much upon the kind of whole-wheat flour which is used, because different kinds of whole-wheat flour vary so widely. I am able to obtain the best results with Purina Mills whole-wheat flour. That is the flour which is used in these recipes. To make true whole-wheat bread whole-wheat flour alone must be used without the addition of white flour. The addition of potato makes an improvement.

Whole-Wheat Bread, No. 1

Boil and mash one-half pound of potatoes. Add to them the water in which they were boiled, and enough more water to make one and one-half quarts of the mixture. Have the mixture lukewarm. Dissolve in it one cake of yeast. Add,—

- 1 level tablespoonful salt
- 2 level tablespoonfuls sugar
- 2 tablespoonfuls cooking oil
- 3 lb. Purina Mills whole-wheat flour

Proceed according to directions for white bread. This makes a dough too soft to be mixed properly by hand. A bread machine is necessary in order to use this recipe successfully, but when properly managed, this recipe makes excellent whole-wheat bread. This dough is so soft that it is necessary to use plenty of flour on the board when it is molded into loaves. It must not be allowed to rise as much in the pans as white bread. A one-and-one-half-pound loaf in such a tin as was described should hardly be allowed to rise to the top of the pan. If any other brand of whole-wheat flour is

used, it will be necessary to use more flour than this recipe gives. The setting which was described, made of scalded flour, may be used in this recipe in place of one cup of the water.

Whole-wheat bread dough is easier to handle if some white flour is used in it. If one is not particular to have the bread made entirely from whole-wheat flour, good whole-wheat bread may be made by the following recipe:—

Whole-Wheat Bread, No. 2

- The setting previously described
- $\frac{3}{4}$ qt. warm water
 - 1 level tablespoonful salt
 - 2 level tablespoonfuls sugar
 - 2 tablespoonfuls oil
 - 1 lb. white flour
 - 1 $\frac{3}{4}$ lb. whole-wheat flour

Proceed as for white bread.

Even a smaller proportion of whole-wheat flour may be used. The proportion of one pound of whole-wheat flour to two pounds of white flour is often used.

Rye Bread

- $\frac{3}{4}$ qt. lukewarm water
- 1 yeast cake dissolved in $\frac{1}{2}$ cup of water
- 1 level tablespoonful salt
- 2 level tablespoonfuls sugar
- 2 tablespoonfuls oil
- 2 lb. rye flour
- 1 lb. white flour
- ($\frac{1}{4}$ oz. caraway seed may be added if desired)

Proceed according to directions for white bread.

Any of these breads may be used in making zwieback, or the following bread may be used, which makes especially nice zwieback:—



BREAD FROM WHICH ZWIEBACK IS MADE, AND ZWIEBACK

Bread for Zwieback, No. 1

- 1 qt. lukewarm water
- 1 yeast cake
- 1 level tablespoonful salt
- $\frac{1}{4}$ cup sugar
- $\frac{1}{2}$ cup oil
- 3 oz. corn-meal
- 1 lb. whole-wheat flour
- 2 lb. white flour

Proceed as in making white bread. When ready to mold into loaves, the dough may be divided into ten-ounce pieces, these pieces molded as the larger loaves are molded, and two such little rolls put into each pan side by side. This will make a double loaf, such as is shown in the illustration, which may be split, then cut into slices and toasted, making dainty little slices.

Following is a recipe for bread which will make zwieback of a little different flavor:—

Bread for Zwieback, No. 2

- 1 qt. lukewarm water
- 1 yeast cake
- 1 level tablespoonful salt
- $\frac{1}{4}$ cup molasses
- $\frac{1}{2}$ cup oil
- 3 oz. corn-meal
- 1 lb. rye flour
- 2 lb. white flour

Plain Buns

- 1 qt. lukewarm water
- 2 cakes yeast
- 1 level tablespoonful salt
- $\frac{3}{4}$ cup sugar
- $\frac{1}{2}$ cup oil
- 3 lb. white flour

Proceed as in making white bread. When the dough is ready to mold, divide it into one-and-one-half-ounce pieces. Roll these pieces into solid round balls. Place them on a baking pan, allow them to rise till very light, which will require from one to one and one-half hours, then bake. As buns are considerably smaller than loaves, they do not require so long baking, but will be done in one-half hour, or even less time, if the oven is quite hot.

This same recipe may be used in making Parker-house rolls and Vienna rolls, which receive their name by reason of their shape. It can also be used in making "bread sticks." They are prepared by rolling the dough out with the hands into rolls about the size of a lead-pencil, cutting into the desired lengths, and placing these on an oiled pan. When they have risen sufficiently, they are baked.

Especially nice buns may be made by adding a little egg to the dough. This is done by using the recipe for plain buns, adding two beaten eggs to the mixture of water, yeast, sugar, etc., before adding the flour.

Potato Buns

Follow the recipe for potato bread, using three-fourths cup sugar and one-half cup oil instead of the quantities given for bread, and form into rolls instead of loaves.



PARKER-HOUSE ROLLS, VIENNA ROLLS, AND CRESCENT ROLLS

Whole-Wheat Buns

Follow the recipe for plain buns, using one pound of whole-wheat flour and two pounds of white flour instead of all white flour.

Currant Buns

Follow the recipe for plain buns, adding three-fourths pound of dried currants which have been washed and dried, and using two or three ounces less flour.

Walnut Buns

Follow the recipe for currant buns, using one-half pound chopped walnuts instead of the currants.

Brown Bread

(This we think is fairly equal to "Boston brown bread" without the taste of the soda.)

In the evening set a sponge of one cup lukewarm water, one-half yeast cake, dissolved in the water, and two and one-half cups sifted pastry flour.

In the morning mix into a batter by adding the following:—

- 1 teaspoonful salt
- $\frac{1}{2}$ cup cooking oil
- 1 cup warm water
- $\frac{3}{4}$ cup warm molasses
- 1 pt. corn-meal
- $\frac{3}{4}$ cup Graham flour, measured before it is sifted
- $\frac{3}{4}$ cup rye meal, measured before it is sifted

The bran of the Graham flour and rye meal is used, being added after the flours are sifted. This should make a rather stiff batter. It is allowed to rise once,

then it is put into a brown-bread tin, allowed to rise till it has increased only about one fourth in bulk. It is then steamed three hours, after which it may be put into the oven for a few minutes to dry off.

"Johnny-Cake"

In the evening set a sponge of one cup warm water, one-half cake yeast, dissolved in the water, and two and one-half cups sifted pastry flour. In the morning mix into a batter by adding the following:—

- 1 teaspoonful salt
- $\frac{3}{4}$ cup warm milk
- $\frac{1}{2}$ cup warm oil
- 2 eggs, beaten
- 2 level tablespoonfuls sugar
- 2 tablespoonfuls molasses
- 1 pt. corn-meal
- $\frac{1}{2}$ cup Graham flour, measured before it is sifted, using the bran

Mix well. Pour it into an oiled pan in a layer three-fourths inch deep. Allow it to rise a little, but not too much, as it would then be coarse grained. Then bake it in a "quick" oven.

Though doughnuts might come under the head of desserts, we will give a recipe for them here because they are made with yeast.

Raised Doughnuts

Sponge:—

- 1 cup lukewarm milk
- 1 cake yeast, dissolved in 1 tablespoonful water with a pinch of sugar
- 3 cups sifted pastry flour



JOHNNY-CAKE AND MILK

Allow this to rise till light, which will require perhaps an hour. Then add,—

$\frac{1}{4}$ cup sugar
 $\frac{1}{3}$ cup oil

Allow it to rise again. Then add,—

$\frac{1}{4}$ cup sugar
 1 whole egg and 1 yolk, beaten
 $\frac{1}{4}$ teaspoonful salt
 A little grated lemon rind if desired
 1 $\frac{1}{2}$ cups pastry flour

Allow it to rise again. Then take the dough out on a board. Work it just a little, being careful not to work in more flour. Roll it out to one-half inch in thickness. Cut with a doughnut cutter. Place the doughnuts on an oiled pan. Allow them to rise, then bake them. After they are baked, they may be brushed over with a sugar sirup and rolled in granulated or powdered sugar.



DOUGHNUTS AND "COFFEE"



Tobacco's Effect on High-School Pupils

THE hurtful effect of tobacco on scholarship has been noticed by many teachers. This is not a new story. The matter of a concrete illustration, taken from the records of work done by smokers and non-smokers, is new. In order to bring the topic before the students in a practical way, in a morning talk, two lists of twenty-five students each were prepared. The students were selected for these lists without regard to grade, scholarship, age, color, or any other condition than one. One list consisted of twenty-five boys known to smoke; the other of twenty-five boys known *not* to smoke. The school records yielded the following results:—

	NON-SMOKERS	SMOKERS
Average standing in subjects	87 %	74.62 %
Average number of subjects taken	5.04	4.36
Number of question marks given because work was incomplete	3	17
Total days absent	11	49
Times excused before close of sessions	1	4
Number of times tardy	3	7
Average attendance	98.16	91.83

If the non-smokers were to take only 4.36 subjects, the work of the smokers, their average standing would be 100.57 per cent. If the smokers were to attempt to do the work of the non-smokers, their average standing would be only 64.70 per cent.

These results prove conclusively that the smoker (1) is more irregular in attendance, due to illness, and not being of sufficient resisting power to stand the work of the school; (2) is unable to

carry the full quota of subjects in school; (3) is unable to do as good work in the subjects he does carry as does the non-smoker; and (4) barely passes the work undertaken, if he passes at all, more often not passing. He does a less quantity and a poorer quality of work. The weakening action of tobacco on a growing mind is clearly demonstrated. The partly grown boy needs all of his strength for intellectual development and for his studies if he would get the best from his school life.—*American Education*.

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Inexcusable Manslaughter

THE great majority of deaths from tuberculosis are due to manslaughter, and this fact should be recognized. The man who carelessly or ignorantly expectorates infected sputum, which, after drying, may be inhaled and may infect another, is guilty of manslaughter. The same is true of the dairyman who sells infected milk, or of the owner who lets an infected house. It is essential that we recognize these truths before we can be successful in our crusade against tuberculosis. The man who would put arsenic in milk or drinking water would be regarded by the law as either a criminal or a lunatic, and in either case he would be so dealt with that he could not repeat the offense. The man who sells milk or other food infected with the tubercle bacillus or other disease-producing germs is distributing a more deadly poison than arsenic, and he should be forbidden the continuance of such a practise. We need wise laws in order to

restrict and eradicate tuberculosis, and their adoption and enforcement are sure to come as soon as the mass of the people see the matter in the true light.

Our State governments should place tuberculosis on the list of diseases dangerous to the public health, require that all cases be reported, and the local health authorities should see that the disease is not disseminated. I do not think that any medical man holds that the homes of the tuberculous should be placarded or quarantined, but the tuberculous individual should be minutely and carefully instructed as to the care that he must take with his excretions, in order that he may not transmit the disease to others.—*Victor C. Vaughan, paper before the Tuberculosis Congress in Washington, D. C.*



Alcohol

IT is a mistake to class alcohol as a stimulant, as this carries with it a mistaken idea of the physiological action. While it may stimulate the heart and raise arterial pressure momentarily, its secondary effect is a cardiac depressant and a vasodilator. The only time when alcohol is a stimulant is in acute cardiac failure, and then it is a stimulant to the heart only before its absorption, reflexly from the irritation, when taken in concentrated solution, of the mucous membrane of the mouth, pharynx, esophagus, and stomach, the rectum if it is administered as an enema, and the tissues if it is given hypodermically. To obtain such stimulation it is, of course, a recognized fact that the alcohol must be a strong preparation, either brandy, whisky, gin, rum, or champagne. This reflex irritation through the vasomotor center temporarily raises the blood pressure, and perhaps through the accelerator nerves stimulates the heart. To keep up this stimulation, another dose must soon be given, in from fifteen minutes to half an

hour or an hour, depending on the prolongation of the heart weakness. The dose of alcohol for such stimulation should be small, in order that the results from the subsequent absorption will be the minimum, as the vasodilator effects are not desired. If the alcohol is administered too frequently, it accumulates in the system before the previous doses can be burned, or eliminated, and then, to obtain stimulation, it will be necessary to give a larger, concentrated dose to cause sufficient irritation and stimulation to overcome the depression of the previous doses. The result of such medication is very obvious. Soon the vasodilation is increased, the heart is depressed, the nervous system more or less paralyzed, and depression is added to depression; and the treatment is vicious.—*Journal of the American Medical Association, Nov. 6, 1909.*



Mind-Cure, After All

THE efficacy of sugar pills is a point for therapeutic discussion, if we are to believe the analysis of a widely used British proprietary medicine, which showed one hundred per cent of sugar, and nothing else. No doubt there are thousands of Englishmen who have recovered from some trifling ailment after taking a few of these pills, and are willing to give certificates of cures of everything from consumption to corns. Americans are not the only ones daft on patent medicines after all, and our English critics should not throw so many stones at us in the future—now that their own houses are found to be made of glass. The serious side of the matter is the real comfort so many people get from dosing themselves with any old thing, whether they are well or sick. It is a human trait well-nigh universal, and must be considered by every successful practitioner. Yet it is wise to pause now and then and think whether it is best to give way to

the patient's desire for medicine, or by being honest, drive a little "trade" to practitioners who are better tradesmen than physicians. Ethics is queer business, if any one argues that deception is justifiable providing it is comforting to the sick. Honesty is the best therapeutics in the long run, in spite of a little temporary success of methods so closely allied to quackery that even Solomon might be puzzled to tell what to do.—*Editorial, American Medicine, September, 1909.*



Interstice and Crevice

IT is not difficult to present cases which prove that the interstice and the crevice can be enemies of health. The man who allows particles of white lead to accumulate and stay beneath his fingernails sooner or later suffers from lead poisoning. To him the frequent application of the scrubbing-brush may make all the difference between health and disease. The neglect, again, to remove particles of decaying food lodged between the teeth may well give rise to a septic process. Once more the brush must be brought into hygienic service. As is well known, a factor of no little importance in infant feeding is the use of a bottle which can be easily and scrupulously cleaned. Such a bottle contains no crevices, which make the cleaning process difficult, and which harbor pabulum and provide a breeding-ground for disease-producing organisms. The interstices of the common dining fork are similarly hygienically objectionable, and require careful attention when the fork is cleaned. The mustache cup is an abomination, the inside surface of the guard being almost inaccessible for cleaning purposes. . . .

Hygienic practise suggests, in fact, that all articles in domestic use which are difficult to clean because of interstice and crevice should be banished. This tenet, however, may more reasonably be sup-

ported in the case of articles intended to convey food than in the case of other articles. . . . It would appear ridiculous to suggest that the boots be left outside the portals of our homes and offices,¹ although that would clearly be a real remedy which no amount of cleaning on a mat can ever be. The interstices of the outdoor garment obviously afford excellent lodgment for micro-organisms and dust, which the application of the clothes-brush proves day by day, but clothes should be brushed out of doors. There are cases in which the dangers of the interstice and crevice can be avoided; and where they can not, they can be minimized by a regard for cleanly practises.—*London Lancet.*



Spinal Anesthesia

THE position which spinal anesthesia is destined to hold in the field of surgery in the future is not yet clearly to be discerned. . . . The latest development . . . makes timely a few remarks upon the general question of anesthesia without loss of consciousness. . . . It is obviously too early to talk about absolute safety in connection with a procedure that has stood the test of only about one hundred twenty cases. . . . Spinal anesthesia does not appear to be welcomed so warmly in Great Britain as in some of the continental countries.—*Lancet.*

In our renewed interest in spinal anesthesia brought about by Jonnesco's experiments and success, it should not be forgotten that the method is a relatively old one. . . . It seems hardly possible that such a method of anesthesia can in any way replace the methods of producing general insensibility except in certain unusual conditions. Quite apart from the painlessness of the operation, it is evidently desirable to spare the nervous system the shock of the experience.

¹ Only ridiculous because not customary. In Japan the opposite custom appears ridiculous.

. . . It is impossible to imagine that the time will ever come when this element of nervous reaction can be entirely obviated in conscious patients, nor is the time likely to come when surgeons can operate with equal calmness and deliberation upon conscious patients as compared with those who are completely insensible to other emotions as well as to pain.—*Boston Medical and Surgical Journal*.

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Barber Shop Danger

SOMETHING seems to have been accomplished of late years in the direction of improved cleanliness on the part of the barber, at least as concerns his implements; but there is still one piece of gross carelessness which is too often encountered even in shops whose patrons are men of refinement. We refer to the practise of blowing upon a person's face to dislodge hairs that have been cut off. It is an indignity, and it must occasionally serve to convey disease.

We can hardly imagine that a decent man would pay a second visit to a shop in which the objectionable practise was tolerated, and a public-spirited individual would certainly stop the procedure on the spot. Even a mild person may ask the offending barber to substitute the brush or napkin for his puffing power. Although we can not yet feel half sure that the appliances in question are clean, we may take it for granted that they will prove less dangerous and assuredly more enduring than the spray from the barber's mouth.—*Editorial, New York Medical Journal, Oct. 9, 1909.*

Why Is the Treatment of Skin Disease Often Ineffectual?

THE treatment of eczema and psoriasis is often wholly ineffectual. Why is it that eczema, psoriasis, and acne sometimes yield to treatment, and at other times refuse to yield to the same line of treatment? The reason may be found in the fact, not sufficiently recognized, that while the skin appearance may be the same or closely similar [for instance, in two cases of eczema], the causes producing them may be entirely different; and it is the cause we should detect, treat, and remove.



In all or nearly all chronic persistent or recurrent cases of eczema, psoriasis, and other [skin] diseases there are certain internal causes which must be found and relieved in order to effect a permanent cure of the skin trouble. Most authors of works on skin diseases do not lay sufficient emphasis on this phase of the subject.

Each year I am more and more impressed with the importance of this principle and its practical application; more and more I recognize the intimate relation between skin diseases and internal conditions.—*Dr. Louis A. During,¹ in paper read before the American Dermatological Association.*

¹ Dr. L. Duncan Bulkeley, who, it will be remembered, some time ago called attention to the effect of a meat diet on skin diseases, and the necessity in many cases of forbidding meat, tea, coffee, etc., thanked Dr. During for reiterating in such a clear and definite manner the principles which he himself firmly believed and practised.



Abstracts



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

Habit-Forming Drugs

A HABIT-FORMING drug is one that causes a feeling of exaltation, followed by a reaction or depressed condition during which the victim has a strong desire to repeat the condition of apparent stimulation.

Such a drug — or, in fact, any drug — does not nourish tissues, repair wastes, or furnish heat or energy. Its action is to influence, or “stimulate,” certain organs.

One is under the influence of the drug habit when he can not by his own will power do without it. A person with strong will power may be able, at least for a time, to experience the pleasant sensations afforded by a drug without coming under its power; and in disease a drug does not always cause pleasant sensations, and so does not always tend to form a drug habit.

Most of the drugs used by physicians do not belong to the habit-forming class, which includes caffeine, theobromin, cocain, opium, and morphin. Such a drug, for instance, as strychnin, while powerful in its effects, does not have a tendency to form a habit.

Caffein is supposed to stimulate the heart, and relieves the feeling of fatigue. Coca-cola is a caffeine preparation, and as the advertisements say, it “relieves fatigue.” There the danger lies. More than a hundred so-called “soft drinks” examined by us contain caffeine. If one must use caffeine, it would be safer to

use it in the way nature furnishes it — in coffee or tea. It should be absolutely excluded from the soda-fountain drinks.

It is true caffeine does not degrade to the same extent that some of the other drugs do, but its effects are very bad when taken in excess. Recently it has been determined that the use of caffeine has a marked tendency to produce Bright’s disease of the kidneys. To-day one hundred thousand people in this country are victims of Bright’s disease or of diabetes, and *do not know it*. It is far better not to overburden the kidneys with unnecessary work, and it should be remembered that seventy-five per cent of the caffeine must be excreted by the kidneys, thus throwing on them an additional burden.

The evil of the drug habit is insidious. Long before the victim suspects it, even before a skilled physician can detect it, the mischief has been done. When a person comes to that state where he is not “himself” unless he is under the influence of some “stimulus,” he has passed the danger line.

Some argue that cocaine furnishes energy to the body. This contention is not true. Cocaine does not furnish either heat or energy to the body. What it does is to cause insensibility to fatigue, and that is its great danger. Fatigue is a danger signal. The moment you take a drug that deadens this signal, you have extin-

guished the red-light signals on your road.

Taking into consideration all the benefit that cocain has been to the practise of medicine, it is a question whether the world would not be better to-day if there were no cocain. It should be restricted to the practise of physicians, and if this permits abuse, its use should be prohibited altogether.—*Harvey W. Wiley, M. D., Chief of Bureau of Chemistry, U. S. Dept. of Agriculture, Address to Washington Chamber of Commerce, Dec. 16, 1909.*



Treatment of Constipation in Children

MANY cases of adult constipation are due to acquirement of the habit in childhood, hence the importance of forming right habits at an early age.

Chief among the causes of constipation is neglect of attending nature's calls early in life. The child leads an active, busy life, and not realizing the importance of attending promptly to every call, gradually grows tolerant of the inconvenience, and soon the warnings are not observed. Parents and nurses should realize this danger, and impress on the child at an early age the importance of regularity. Even in babies, the habit of regularity can be encouraged. I have seen, not infrequently, babies so trained in a few weeks that their napkins are seldom if ever soiled. Older children should be "seated" at a regular hour daily (preferably after a meal, as introduction of food into the stomach favors bowel activity), and be required to remain until the desired result has taken place. Plenty of time should be allowed, and if at the end of fifteen minutes there has been no result, I would advise the use of a glycerin suppository. By carrying out this plan faithfully, a habit of regularity will be established. The child should be so seated that his feet are on the floor. The ordinary seat constructed for adults is unsuitable.

Another cause of constipation is the use of too little drink. Often the discharges are so dry and hard as to cause great difficulty and discomfort. A child should regularly drink a small tumblerful of cold water night and morning, and take frequent drinks of water during the day.

Lack of exercise is another cause of constipation. Children suffer from this trouble much more frequently in winter, when they are housed up, than in summer, when they are free to run around. For this reason it is well to have the children take exercises regularly, especially those requiring the bending of the trunk on the legs and *vice versa*.

In babies, constipation may be due to constipation in the mother, the result of an inactive life on her part, or the use of too much tea. The remedy is obvious. A deficiency of fat and an excess of sugar in the milk may be a cause. The remedy is the addition of cream, and the dilution of the milk preferably with oat-meal-water. Sterilization of the milk sometimes causes constipation, and the use of raw milk is the remedy.—*G. H. Melville Dunlop, M. D., F. R. C. P., Senior Physician to the Royal Hospital for Sick Children, in Edinburgh Medical Journal.*



Baldness

EVERY moment the head can be relieved of the pressure of the hat should be taken advantage of. A ventilated hat, if worn tightly on the head, will not prevent baldness. Great care should be exercised in selecting hats, and it is better to select a hat a little large, and insert a few felt strips under the band to give a soft cushion-like effect.

Some one should invent a hat to prevent baldness, though doubtless such an invention would not be popular, because there is more money in hair tonics, "re-

storatives," fake electric-massage apparatus, etc.

Hundreds of "sure hair restoratives" are on the market; but not one of them will bring back a hair if the follicle is atrophied; and not one will prevent falling hair unless the habits are changed.

At the best, these remedies are merely skin irritants, which increase the flow of blood to the scalp.

Dandruff cures are mostly fakes. The only good connected with them is the massage the scalp receives during the application.

The time to cure baldness is before it begins. Every man should devote a short time night and morning to scalp massage. He should grasp the hair by the handfuls, draw the scalp back and forth many times and make it slide over the skull. This will preserve the cushion of fat, and prevent binding and thinning of the scalp. It will also pull out the loose hairs, which will be quickly replaced by a more vigorous growth.

A woman combing her hair can not help pulling, and this necessity is the salvation of her hair.

The hair should be worn as thick as nature will allow, and long enough for the cut ends to extend below the rim of the hatband. Hair thus cut is more becoming than a close crop.

Many of the massage apparatuses are good enough in their way, but *not so good as one's own hands*.

But all these precautions will avail nothing unless the hat is properly worn. Every few moments when outside, the hat should be lifted and gently replaced. The tendency is for the hat to form an indentation.

Hats, like the stiff straw, likely to be blown off, should never be worn, for they will be jammed down on the head so as to impede circulation.

Tie a string around the finger never so lightly, and note the effect on the circula-

tion. This will demonstrate the surprising amount of pressure that may be exerted on the scalp by a careless manner of wearing the hat.—*Cobb, New York Medical Journal*.

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Importance of the Ordinary Germ of Sour Milk

THERE is only one group of bacteria—the soil bacteria, which digest all plant and animal refuse and prepare it for plant food—of more importance than the lactic-acid bacteria, which take a prominent place in the fermentation of milk and its products.

Natural souring of milk is favored by a temperature of 70° F. A temperature lower than 70° favors the growth of bacteria, which cause offensive changes in milk; and a higher temperature than 70° favors the growth of the colon group [which may have much to do with intestinal disturbances and summer complaint]. The results of the fermentations of this latter group are always detrimental to milk and its products.

It appears that nature has predetermined that *Bacterium lactis acidi* [the germ of sour milk] should in a way be an agent in preserving so necessary and perishable article of food as milk. The most favorable fermentation that could occur in milk is caused by this organism. It would be ideal not to have milk ferment; but so long as bacteria exist, it is practically impossible to prevent their getting into milk; and if these organisms are present, fermentation is always the result. The desirable change which occurs in milk as a result of this lactic-acid bacterium is the production of lactic acid from the milk-sugar to the amount of from three fourths to one per cent, and sometimes more.

This amount of lactic acid precipitates the casein ["clabbers" the milk], and we have really a pickled milk ["sour milk"]. This organism does not affect

the fats and salts. Its effect on the casein is to improve the digestibility of this important compound, the meat element, which is the most necessary and most valuable constituent of milk. If this organism were not present in milk, the undesirable bacteria would start fermentations, resulting in the destruction of food elements and the possible production of poisons.

Another valuable characteristic of the lactic-acid bacterium is that it grows in the presence of lactic acid to the amount of sixty-five one-hundredths per cent, while other bacteria are hindered by acidities above twenty one-hundredths per cent.

In short, this bacterium [when it finds opportunity to grow, e. g., a temperature near 70°] sours the milk, and prevents it from turning into a worthless substance. Sour milk will keep for a week in good condition, and during that time the growth of disease germs and other undesirable bacteria will be hindered.

Sour milk is supposed by many to be unfit for food, and the taste is offensive to most people.¹ As a matter of fact, sour milk is really a more healthful food

than sweet milk, digesting more rapidly and more completely² than the latter. A demonstration of this may be found in such people as the Scotch and Swiss, who use sour milk as a food, and who give evidence of having a strong constitution.

The lactic-acid bacterium is used in artificial ways, in the manufacture of lactic acid, in the ripening of cream to make butter, and in the ripening of cheese. Practically all butter made from cream that is not sweet has the cream ripened by means of this lactic-acid germ. It is the only organism known that produces the right kind of flavor and keeping qualities in butter.

In the process of cheese ripening, the lactic-acid germ is absolutely essential in the first stages. If it is not present, the cheese is spoiled.—*W. M. Esten, in Storrs Bulletin, No. 59.*

¹ Perhaps it is the idea that it is "spoiled" that makes its taste seem offensive. Those who realize that buttermilk is a particularly healthful food soon learn to relish it.

² Many who are unable to use sweet milk, find they have no trouble with sour milk or buttermilk.



THE MEDICAL FORUM



Educational Value of the Rockefeller Gift

IT will be remembered that a number of the Southern papers resented the one-million-dollar Rockefeller gift for the eradication of the hookworm disease. The Bulletin of the North Carolina board of health, referring to the gift, calls attention to the fact that Mr. Rockefeller did not act hastily in this matter, and that it was not till after he had made thorough investigation through his agents, as to the extent of the disease and the practicability of the methods of prevention and cure, that he made his offer. Scientists have for several years been publishing the facts which Mr. Rockefeller learned through his agents,—

"and on these claims they have urged State governments to appropriate money for the preservation of such a cheap thing as human health and life. On the other hand, State governments, judging from the appropriations for different purposes, have considered it better business to spend the State money on trees, plants, animals, birds, etc."

After referring to the fact that North Carolina spends the magnificent sum of eight thousand five hundred dollars annually on public health, the Bulletin continues:—

"Now from what has been said, it is very evident that there exists a very great difference of opinion between John D. Rockefeller and the average State government as to the value of public health. Either one or the other has made a big mistake, and if the oil king has made a bad move, it is about his first one."

The fact is, statesmanship is built on the value of dollars rather than on the value of life. The statesmen who have a

true perspective of the value of human life and health are in the minority, and ahead of their generation. In this, Mr. Rockefeller, whatever his faults, manifests one of the elements of true statesmanship. Says the Bulletin:—

"It is believed this gift will serve its chief purpose, not in the eradication of the hookworm, which it will to a large extent accomplish [and that in itself is an incalculable benefit], but as a demonstration to State governments of the value of human health and life."

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Disguised Starvation

SO much has been said recently regarding the danger of overeating that the opposite danger is sometimes lost sight of. Probably there are more persons who have a tendency to eat too much than there are who have a tendency not to eat enough for the needs of the body: but that the latter class exists in appreciable numbers can probably be attested by any observing physician.

Undoubtedly many under-weights are such because they do not eat enough, and this possibly in part from motives of economy, but often largely because of lack of appetite, or because a larger quantity of food causes distress, and the absence of distress, with a smaller quantity of food, is taken as an indication that it is the better procedure.

Dr. Rosewater, in the *New York Medical Journal*, December 11, describes a characteristic case of this kind, which I

can say from personal observation is not overdrawn.

"The good housewife, waking with multitudes of economies, duties, and worries, prepares breakfast and watches her husband and children so that they eat with relish, while she, unobserved, takes but a bite and feels that she can eat no more. She fills her husband's lunch box with a big meal, for, 'poor, dear fellow, he has to work so hard,' never thinking that she works fully as hard. She hustles the children to school, and is busy with work and worry till noon, when she gives the children their luncheon, and for herself again takes but a bite or two, while her little ones eat heartily, with minds on play. They go, and she soon is busy with the everlasting grind. Tired in body and mind, her supper is ready, but too often, in spite of appetite, the same process is repeated, for the poor worried brain and tired nerves feel even the slightest demands of the stomach as too much of an effort, and in response to these feelings she can scarcely eat at all. Everybody else eats with a relish, but each effort is a task, and after trying a few times, her will yields to her feelings, and her supper is ended. She works and worries, till, exhausted, she goes to sleep if she can. All surplus fat of care-free days is gone, and now each swallowing act distresses."

And so the picture goes on, becoming darker and more hopeless. Dr. Rosewater's remedy is an appeal to her reason, to her sense of self-preservation, to her love and duty to her nearest ones. As a result she eats, taste or no taste, appetite or no appetite, pain or no pain. She eats because she believes it to be her duty to maintain her nutrition. And many have been the patients who have been cured of malnutrition, threatened tuberculosis, and early death, by being governed by reason rather than appetite.



Tuberculosis and Infant Mortality

VON PIRQUET, in the *New York Medical Journal*, calls attention to the great frequency of tuberculosis among nurslings. In older persons the nature of the disease is recognized, but

tuberculous infants meet death in forms not always recognized as tuberculous.

In answer to the question why so many infants become tuberculous, Von Pirquet says:—

"If we go carefully into a detailed statement of the possibilities of infection, we find in nearly every case of tuberculous infants another person in the neighborhood who has an open tuberculosis. Whether the infection is directly through droplets containing tuberculous germs which are coughed out by the afflicted person and then breathed in by the child, or by bacilli taken in from the dust of the room in which tuberculous sputum has been dried out, is a question which has not yet been decided.

"In comparison with the danger of infection from other human beings in the neighborhood, that of infection through tuberculous milk is probably rather small. Still the milk of tuberculous cows very often contains tubercle bacilli, and we must consider it dangerous."

This, it should be borne in mind, is the attitude of nearly all students of tuberculosis; namely, that while tuberculous milk presents a real danger which should be avoided by using milk, either from cows known to be non-tuberculous or else Pasteurized milk, the principal source of infection of infants is "open" tuberculosis (with a cough) in some human subject, and every infant should be protected from the presence of such a person, whether it be aunt or grandmother or old friend of the family. The baby should not be kissed by such a person (better not by *any* person), and should not remain in a room occupied by a person with a cough.

In the *Journal of the American Medical Association* of November 27, Dr. Henry Larned Keith Shaw reiterates former statements to the effect that—

"tuberculous cattle are a menace to public health, and give the disease through their milk in rare instances. Efforts to stamp out the disease in cattle should be made, but the attention of the public should not be diverted from the great and real danger of human contagion."

The Medical Missionary At Work



Preaching and Healing in a Buddhist Temple in China

P. J. Laird

IT is with no ordinary sense of thankfulness that we are able to record that the message is onward in Hunan, thanks to the prayers of our friends and supporters.

Six weeks ago my wife and I, with two Chinese helpers, left Chang-sha for a visit in the country of Liu-yang, two days east overland, where we have three inquirers. Two of these are members of another church, and earn a precarious livelihood by selling herbs at an open stall on the street.

The third inquirer at Liu-yang is a silver- and gold-smith of comfortable means. His brother was our first convert in Hunan. He has quickly gained a knowledge of the Word of God, and we pray that God's blessing may descend upon him as he has decided to keep the Sabbath and to close his place of work on that sacred day. May the Lord grant us more sympathy with these inquirers. It is not easily acquired when we have not had a like experience.

The weather being very hot, we preferred to stay in the country a few miles from the city. The inquirers sometimes came to our Sabbath-school, and sometimes our brethren joined them in their homes. One has decided to come to Chang-sha for more definite instruction. This is the first time it has been our privilege to leave the well-beaten track and live among the homesteads, and the long visit has been much appreciated, be-

cause it gives us a much better insight into the real home life of the Chinese. But it has been very easy for us to do this here, on account of the greater domestic freedom. This may be accounted for, in a measure, by the fact that we have seen but two women with bound feet since we came here. Words fail to describe our thankfulness for such opportunities to preach unto them Jesus and the resurrection.

If the Cantonese are great idolaters, and the inhabitants of Chang-sha are very great idolaters, then Liu-yang may rightly be regarded as exceedingly great in its idolatry. As might be expected among such a class of people, medical missionary work was greatly appreciated. It was soon noised abroad that a doctor was among them, and they began to come in large numbers, every morning and afternoon. Prejudice against foreigners, if it ever existed, was scattered to the four winds, as was also their fear of receiving at our hands. We used a Buddhist temple as dispensary and waiting-room, and there, almost in sight of the idols, the work of healing and preaching was conducted. Although we did not come well prepared for large numbers of patients and such a large variety of diseases, yet our little stock did yeoman service. How many might have been cured without coming to us had they known of some simple remedies, instead of running around to idol shrines

to get prescriptions! It was sad indeed to send many away as they came, some having traveled on foot ten and twelve miles, in a broiling sun, in the faint hope of having their sight restored.

Some of the more serious cases told us they had visited almost every available shrine in the district, without success. Those shrines having a reputation for healing virtues have cylinders containing a stock of ready-made prescriptions.



THE TEMPLE OF HEAVEN, PEKING

The most noteworthy of any of the edifices in China, built on the top tier of three circular terraces that form an elegant base for the grand dome

Sometimes those for men and women are separate, as are those for external and internal use. Otherwise all are mixed together. Lots are cast, and the prescription chosen is supposed to be the one for use in that special case. Usually but one prescription is tried, and if unsuccessful, the fault lies with the patient, who, if so inclined, will seek healing at another shrine, and so on.

As the patients and their friends came in small companies, each group formed a congregation for easy and brief gospel talks, until the next company came. As my wife and I have not become suffi-

ciently acquainted with the Liu-yang dialect, which is different from that of Chang-sha, we were compelled to speak through Brother Huang. He has been a great help all along, and God has abundantly blessed in his testimony. This question of dialects or brogues is likely to prove a great obstacle to the work in Hunan. But we pray that God will raise up Chinese Christians who can readily adapt themselves to it. We thank him, and

take courage, because hundreds must have carried away seeds of truth, if only they will believe what has been preached to them of the Saviour, who alone can cleanse from sin and break the bonds of Satan's forging.

We persuaded one man to stay at the temple, so we could give him frequent treatments. Daily the Scriptures were opened to his darkened mind. At first, it was difficult for him to realize his sins, and that **only** justification by faith in Christ could avail for his salvation.

But as the Word of God was presented to him, "precept upon precept, line upon line," he seemed completely broken down, and asked us to pray that God would forgive his sins, which were many. Since he returned home, others have come from his village for treatment, and they tell us he is doing the best he knows how to convince his fellows of the sin of idolatry. May he be blessed, and through his testimony lead some to Jesus.

The first week or two, we made no direct effort to reach the Buddhist abbot and priests at our dispensary in the tem-

ple, but prayed that their hearts would be opened, and that they would be inclined to make inquiries concerning the truth. They would come occasionally to see the patients receiving treatment, and perchance would listen to the talks on the gospel. But in due time we were given cause for rejoicing, as first the abbot himself, and then the priests, began to send for the Chinese brethren, to ask them the meaning of the teaching which could make people do as we were doing. To-day, praise God, they are, at morning, noon, and night, drinking at the fountain of truth and knowledge. The abbot, who is over seventy years of age, and deformed, has signified his intention of coming to Chang-sha when his term of office expires, that he may attend our Bible readings. The keenest of the priests says he has decided to quit the priesthood next month, after the feast-day, and will come to study with us. Another states his intention of arranging his affairs to a like end. What will be the outcome of these resolves, we do not question, preferring to leave the results with the Lord, but such deep interest I have seldom, if ever, witnessed before. The Chinese brethren are full of praise, saying they never saw things on this wise before. It has also been a lesson in humility, as there is a common tendency to despise Buddhist priests, perhaps on account of the foreign origin of their system. Another priest, who is very sick, and would probably have lost his life had he not come for treatment, has become greatly changed in his demeanor during the few days he has attended the dispensary. He has been

quite willing for us to speak to him about the Saviour, and to pray with and for him. We have hope he will make his peace with God, and live a new life, following his commandments and the faith of Jesus.

Treatments may take much time, but our experience is that, rightly administered, they are a channel of great blessing. We rejoice that medical work was given such great prominence at the General Conference.

Visits have been made at the homes of patients and others. One family, in which the Lord speedily restored the mother to health, gives hope of accepting the gospel as they hear it. Not one can read to any extent, and they are otherwise very ignorant. God must work in their hearts after we leave for Chang-sha, when there will be no one to teach them further. The oldest son is quite convinced that idolatry is an insult to the Creator; but, unfortunately, their home shelters an idol, which, because of its supposed power to heal sickness, is the talk of the neighbors, but it proved unavailing in his mother's case. He told me that if money had been forthcoming, their home would have been demolished, and a temple erected on the site in honor of this little idol, supposed by them to possess the spirit of a deified dead man. May he receive the gospel, and prove a modern Gideon.

Do not these incidents call forth praise and prayer in behalf of these benighted people? "Finally, brethren, pray for us, that the word of the Lord may run and be glorified, even as also it is with you."

Argentina, South America

G. P. Replogle, M. D.

THE work at the sanitarium here is aggressive. For a few months during the absence of Dr. Hab-enicht, the medical work came almost to a standstill on account of the intervention of the authorities. The friends of the institution, however, went to the authorities and petitioned that we be allowed to take care of their sick. This was granted, with the privilege of practising in the immediate neighborhood.

Since the return of the doctor from the United States, the patronage has been increasing, gradually coming back to its old-time run. We are getting in shape to receive a larger number of patients and give better accommodations than before.

The lower story of the new building is nearly finished, ready to fill with guests. Although we are in a somewhat crowded condition, the patients make the best of it, and are doing well. There are, at present, about thirty in the house. In a few weeks the second story will be ready for occupancy. This will give us more rooms for patients, and better office facilities. There is continual demand for surgical work. We have to perform even our major operations under inconveniences that would surprise our friends in the States, but the results are equal, as far as we can see, to those obtained where more modern equipments are enjoyed.

At present we are still using the kitchen, dining-room, and bath-room of the old building. While these are efficient, the family is so increased that it

takes several sittings in our dining-room to serve the meals. These appointments will be more commodious in the new house.

Our force of workers is small, but they are working very faithfully and harmoniously together in the Lord's work.

The way in which the patients crowd into the various departments to assist, and to learn the valuable lessons of hygiene and scientific cookery, is especially noticeable. Through them the idea of healthful living is carried to many different homes. The patients as a rule take kindly to our health principles. Many are accustomed to the use of meat, maté [a beverage containing caffen, much used in South America], tobacco, etc., but upon the advice of the physician, they forego these harmful luxuries, and soon learn to enjoy the advantages of temperance.

The worship periods are quite well attended, the patients showing due interest not only in the meetings, but in the literature as well.

Our friends and neighbors in the vicinity of the sanitarium are quite loyal in many ways, and indeed they should be, for the benefits they derive from it. They make donations in various ways, such as hauling materials for the work on the new building, contributing toward the much-needed furniture, etc.

We are full of courage, and believe that the Lord will carry through triumphantly the good work which he has started here.





Unsigned articles are by the editor

Sufficient Unto Themselves

A NEW YORK medical journal claims to have in preparation (metaphorically of course) a five-mile shelf of medical books for the perusal of lay readers, and suggests that "such perusal will to a limited extent show the truly medical point of view and explain the politely concealed impatience of the doctor when expected to listen to the accounts of marvelous cures effected by patent and domestic remedies."

And we must confess to an ill-concealed impatience on reading the above. The medical man usually is sufficient unto himself. He needs nothing from the outside, except fees and medical legislation. He forgets that some most efficient remedies have been domestic remedies. He forgets that there is a constant quarrel between the various schools of medicine now protected by law; and he forgets that even within the regular

school there is a periodical squabble between pediatricians and obstetricians as to how to care for a baby, and that scarcely two pediatricians can agree as to how to feed a baby. He forgets that the discoveries of to-day are thrown into the lumber-room to-morrow, to be forgotten, and rediscovered twenty years hence. And there are a lot of other things he forgets.

But this only means that there is more than one phase to the medical profession. In its broader side it is enabling us to conquer the tropics, it is lengthening life, it is reducing our discomforts, it is rendering untold benefit in many ways, and often at a sacrifice to its own interests. That medical men are but human, and that as a consequence they have weak as well as strong points, is but to be expected. But, we ask, where would we and our civilization be to-day without the doctor?

Food and Leprosy

A BRITISH colonial-office report contains some statements which seem to bear strongly against the theory that leprosy is transmitted by means of food. Since 1863 some 2,772 lepers have been treated at the asylum at Hendala, Ceylon. It has been a long-standing custom

for crowds of pauper children from neighboring villages to beg food daily around the asylum walls. Until very recently the remnants of the lepers' food have been given to these children. Coolie servants take their meals sitting among the lepers, exchanging delicacies with

them. Attendants with bare fingers repeatedly dress the wounds of the lepers and handle their soiled linen. Not infrequently a patient will send articles of food to the family of his attendant, and this attendant, who has handled sores and soiled clothing, may even feed his baby on these leper delicacies with his unwashed fingers!

Children in our own country sometimes "swap gum" at school. It is stated that in the same way it is a custom in the East to exchange the partly chewed betel-nut, and this is sometimes done between lepers and non-lepers. Though the attendants have been in the service of the hospital for several generations, not one of them or of their families has yet contracted the disease.

And the disease has not been known to occur among the villagers who have eaten of the cast-off food of the lepers.

This is quite strong evidence that leprosy is *not* ordinarily conveyed by the food or by ordinary contact. How it is transmitted still remains a mystery. Some believe that the bacillus enters the system through the nasal passage. The nasal secretion of a leper is found to contain the bacilli. Some believe that the parasite *demodex*, found in the sebaceous glands of the nose, and supposed to be the cause of blackheads, etc., transmits leprosy, for the bacillus is found in these glands in lepers.

Thus far no theory of transmission has sufficient evidence in its favor to warrant its general acceptance.

The Advantages of Registration

BEFORE the days of registration, the nurse was supposed to devote her life to service for the unfortunate. Those who had the ministrations of Florence Nightingale or one of the worthy followers of this noble woman, could well rise up and call her blessed.

But a new order of things has entered the nurses' ranks. The old ideals have passed away, at least so far as the professional registered nurse is concerned, and new ideals, looking to the interest and health of the nurse rather than the patient, have taken their place. At least so it would appear from some expressions which appeared originally in the *Medical Record* (Feb. 20, 1909):—

"The majority of nurses in the registries connected with the large training-schools in the city are on record as being unwilling to accept employment in cases which do not come up to their requirement. For instance, Miss A. is registered against night work, Miss B. against contagious cases, Miss X. against patients where there are

children in the family, Miss Y. against nervous diseases."

A physician in a neighboring town is unable to secure a nurse at two large training-schools for his sick child, because the nurses did not want to leave the city just before Christmas!

Physicians are coming to use nurses who have had inferior advantages, preferring them to the haughty, registered nurses, who accept only the most agreeable cases, and then perhaps use their discretion about following the physician's orders.

A thorough training should not be a disadvantage to a nurse, and it need not, if, with this training, nurses are not indoctrinated with ideas concerning their relation to physician and patient which are ruinous to all concerned.

It will be well for the training-schools which are attempting to monopolize the nursing work if they see in the formation of the National Board of Regents

the handwriting on the wall, and change their attitude toward the medical profession.

It would seem that some of the leading lights in the recent movement for a

broader scope for the nursing profession would do well to look to a modification of some of the objectionable features that have insidiously crept into the nurses' course.

Wine as a Food

THE effort has recently been made to demonstrate that wine is a valuable addition to the menu of the poor of France, enabling them to live more cheaply and on a smaller quantity of food.

In this connection it is interesting to know that Professor Landouzy, of the University of Paris, has been collecting statistics showing how money spent by

French working people for wine, would purchase nourishing foods. The wine takes away the feeling of hunger, but does not nourish the system and make it resistant against disease. Professor Landouzy believes that this underfed condition of the masses, because of the free use of wine, is one of the more important causes of the predisposition to tuberculosis.

Physical Culture and Its Advantages to Women

(Concluded from page 92)

employees, due to the wretched lighting of the place. But why dilate on the anti-hygienic influences that surround the women of to-day — influences which more or less unfit her as a desirable sweetheart, a companionable wife, and a happy mother? Enough has been said to indicate the trend and multiplicity of the evils in question.

The remedy? This, so it is thought, has been indicated. The spinster or matron who seeks to be that which nature intended her to be, must make up her mind to change her present modes of existence and lead the physical-culture life. To do so is by no means difficult. Such a life entails no hardships. calls for no

wearisome deprivations, places no tax on the time, and but little on the tastes. It is the "natural life," and therefore is as easy as it is pleasant. It includes a near-vegetarian diet, plenty of fresh air, a sufficiency of exercise, the use of the warm and cold bath, and the wearing of clothing that will outrage neither physiological facts nor the demands of current fashion.

The working scheme of such a life is indicated in this series of articles. The time to test its possibilities, O maids and matrons, is right now, and its rewards are sound health and the happiness and comeliness that are certain to arise therefrom.



Immigrants Rejected.—During the past year 996,124 immigrants were inspected, and of these, 14,536 were rejected on account of physical defects.

Trichinosis in Spain.—A Spanish town recently had thirty cases of severe trichinosis as a result of eating the meat of one hog. Fourteen died, and in all these, the trichina was found in the muscles.

Hookworm Conference.—The first Conference for the eradication of the hookworm disease will be held in Atlanta, Ga., January 18, 19. The States of Alabama, Mississippi, South Carolina, Georgia, and Florida will be represented.

Milk in Louisville.—As the result of a conference between the Kentucky, Indiana, and Louisville health authorities it was decided that after ninety days all milk shipped to Louisville must be from herds found by the tuberculin test to be free from tuberculosis.

Rabies.—During 1908, according to the United States Public Health and Marine Hospital service, there were one hundred eleven deaths from this disease in thirty-eight States and Territories, but none on the Pacific Coast or in the Rocky Mountain region.

Pellagra Commission.—With the approval of the Secretary of the Treasury, a commission of five members of the Marine Hospital Service and two of the St. Elizabeth Hospital staff have been appointed to carry on a series of investigations regarding pellagra.

Poisoned by Tapestry.—An influential banker of Vienna, Austria, was poisoned, as was shown by the autopsy, which revealed the presence of antimony and arsenic. Further investigation resulted in the detection of these poisons in the heavy tapestry of his office, and his death evidently resulted from slow poisoning through the inhalation of these substances.

Fund for the Training of Teacher-Nurses.—A fund of several hundred thousand dollars was presented to the Teachers' College of Columbia University for the support of a post-graduate school for teacher-nurses, whose work shall be to "carry the theory and practise of physical welfare for children and of hygienic living in general into homes, schools, and communities." This will be the first school of the kind.

Women as Physicians in England.—The Royal College of Surgeons of England has decided to admit women to examinations for college diplomas in January, 1910, and to recognize the women's medical schools in London and Edinburgh.

Pure Milk Association.—There has been organized an association—the American Association of Medical Milk Commissions—whose object it is to enlist physicians in an effort to secure a pure milk supply by inducing dairies to conform to certain rules as to the care of their stock and the handling of their milk.

Village Hygiene.—Because of the insanitary condition of the villages in certain districts of Alsace (Germany) prizes have been offered for cleanliness. Last year ten villages entered the competition. One obtained the first prize, two hundred fifty dollars. Two shared the second prize, one hundred twenty-five dollars, and three received diplomas.

Disease in Schoolchildren.—In a recent examination of twelve hundred thirty-three children in New York City two hundred eighty-nine, or twenty-three per cent, reacted to the tuberculin test, though in many the tuberculous process was evidently walled up and not active. Fifty had enlarged tonsils or adenoids. There were a large number of cases with decayed teeth.

Smallpox in Russia.—A Russian village with a population of more than one thousand, having imperfect sanitation and no adequate medical supervision, was entirely wiped out by smallpox, there being only one survivor, a man of seventy-two, who went insane as a result of the awful experience. It was decided wisely to burn the buildings. It need not be added that vaccination had not been in vogue in the village.

Spinal Analgesia.—Ryall, in West London *Medical Journal*, October, 1909, attributes the danger of spinal analgesia to paralysis of respiration. This danger has been obviated by Jonnesco's stovain-strychnin method, but Ryall found that novocain could be used with less danger. He believes novocain-strychnin to be the best combination for producing analgesia in any part of the body. It can be used for operations on the neck, head, and upper extremities, that could not be performed by spinal anesthesia.

Hookworm on the Pacific Coast.—The disease has become established in California, having been taken there, probably, by laborers from Hawaii or the West Indies, or by returned soldiers from the Philippines.

A New Consumptive Sanatorium.—A Roman Catholic archbishop of New Jersey has purchased a farm of one hundred thirty-one acres, on which will soon be opened a sanatorium for the reception of consumptives, regardless of creed.

Work by the Rockefeller Hookworm Commission.—This commission has already begun active work for the eradication of the disease. At present the cost of treatment of each case is about sixty-seven cents, but it is hoped that by careful administration this can be reduced to fifty cents.

Cats Carry Diphtheria.—In a recent outbreak of diphtheria in an English village a number of cats were ill. From the throat of one that died a culture was obtained showing the presence of diphtheria bacilli. It should be remembered that cats are quite susceptible to diphtheria, and may transmit it to children.

Pellagra and the Hookworm.—An interesting feature noted in connection with the recent pellagra conference was the fact that the geographical distribution of pellagra and hookworm disease are nearly identical. Whether the presence of the hookworm parasite increases the predisposition to pellagra is a point for further investigation.

A Government Pellagra Commission.—Surgeon-General Wyman of the Public Health and Marine Hospital Service announces the appointment of a commission to investigate and report on the nature and treatment of pellagra. Of this commission Dr. John S. Anderson, director of the United States Hygienic Laboratory, Washington, is chairman.

Flies and Dysentery.—In the Danvers (Mass.) State Hospital, there was in 1908 an epidemic of bacillary dysentery, involving one hundred fifty-six cases, with thirty-six deaths. In the report of the investigation, which was most thorough, the belief is stated, though on circumstantial evidence, that the spread of the disease was due in large measure to the agency of flies.

Tuberculosis in Japan.—Kitasato has published an article on this subject in a German journal of hygiene, showing that tuberculosis is on the increase in his country. The fact that there are practically no cows in Japan, and that tuberculosis is as prevalent there as here, should furnish comment on the hysteria that is now asserting that fifteen per cent of our human tuberculosis is from cattle. Perhaps one tenth of that amount would be nearer correct.

Tuberculosis Work in New York Schools.—New York City has appropriated sixty-five thousand dollars for the construction of open-air class-rooms in the public schools, and twenty-seven thousand dollars for the establishment of additional tuberculosis clinics. Altogether, more than a quarter of a million dollars was appropriated for tuberculosis work.

Schoolrooms Too Warm.—The director of physical training in the New York City public schools has ordered all teachers to keep the schoolrooms at a temperature of sixty-eight degrees, instead of seventy as heretofore. He asserts that at the lower temperature the pupils will do better work. In England it is customary to keep schoolrooms at a temperature of sixty.

Program of the Hookworm Commission.—In addition to treating victims of the disease, a definite educational campaign is to be inaugurated, not only among the patients, but among physicians, landlords, and employers in the infected localities, in order that better sanitary facilities may be provided. Appropriate legislation will be secured in the different States harboring the disease.

Churches Fighting Tuberculosis.—Some of the churches of our large cities are conducting tuberculosis classes for patients who are unable to leave their homes for institutional treatment. Classes are held once a week. Each patient brings to the clinic or "class" a book in which he has recorded his weight, symptoms, sleep, habits (amount of open air, etc.). The physician examines this report, and gives suggestions as to improvement in diet, habits, care, etc., or perhaps detects some special symptom that should have treatment. This touch with the daily life of the patient gives the physician opportunity to regulate conditions for the patient nearly as well as in a sanitarium. Excellent results are reported from some of these classes.

Low Death-Rate.—Census Bureau Bulletin 104 reports the death-rate for the registration States, that is, States having laws enforcing the proper registration of death, to be 15.3 per 1,000 of population, the lowest rate on record in this country for the entire registration area. With a fixed population, such a death-rate would mean an average longevity of more than sixty years. The death-rate in England is only 14.7 per 1,000 population. The registration area in the United States for 1908 included ten States, the District of Columbia, and 74 cities in non-registration States, with a total population of more than 45,000,000, or over half of the total population of the United States. The addition of Ohio to the registration area in 1909 has increased the population of this area to 55 per cent of the entire population of the United States.

Milk in Place of Alcohol.—Inquiry in one thousand hospitals shows that in Germany, Austria, and Switzerland the use of intoxicants has fallen off considerably within the past twelve years. The consumption of milk has risen from twelve to nineteen per cent. The opinions of many doctors are expressed to the effect that the decrease in alcohol and increase in milk will be still further continued.

Typhoid Carriers.—It seems probable, as a result of the very thorough investigation into the cause of typhoid in the District of Columbia, that a considerable portion of the cases are due to the presence of unknown typhoid bacillus carriers. The recent report of the typhoid fever commission emphasizes the necessity of more complete control of typhoid carriers as a means of checking the disease.

Hotel Pays for Selling Typhoid Oysters.—A British naval officer with a friend ate oysters in a Chatham hotel, and in two weeks came down with typhoid. When able to do so, the officer sued the hotel management, and obtained thirteen hundred twenty dollars damages. The friend died, so received no damages. The moral for that hotel keeper is to have typhoid cultures of such a strength that his guests never will have the opportunity to sue.

Sea-Water Injections.—Based on the theory that all life originated in the sea, a new school of practise is springing up which uses sea-water obtained at a distance from the shore, and at a sufficient depth to avoid the presence of surface bacteria. This water is diluted, eighty-three parts of sea-water with one hundred ninety parts of pure spring-water. This is injected slowly under the skin with aseptic precautions, in quantities reaching two ounces in infants. It is claimed that as a result of treatment there is a notable improvement in the stools, in the appetite, in the skin, weight, etc. In some cases of extreme wasting, remarkable results have been reported.

Bakery Inspection.—Kentucky is to have bakeries regulated by law. Regulations define the character of buildings to be used as bakeries, including plumbing, lighting, drainage; and directions are given for cleaning wood-work, the care of walls, etc. Bakeries shall be used for baking purposes only, and not for sleeping-, lounging-, and toilet-rooms. Cleanliness of employees is enforced, and spitting on the floors is prohibited. The health of employees must be safeguarded. No water can be used except from a source that analysis has shown to be uncontaminated. Bread must not be wrapped in newspapers, or have tags affixed. Materials used in baking must conform to the pure-food requirements. An adequate system of inspection will be inaugurated in order to enforce these provisions.

The Dope Drinks.—The Bureau of Chemistry has examined more than one hundred so-called "soft drinks" sold in soda-fountains, which contain caffeine, and more than fifty of them contain cocaine. These "bracers" are little, if any, better than the drinks of the rum shop, for the tendency of all of them is to form the drug habit.

Plague on Pacific Coast.—During 1909 no human cases of plague developed in San Francisco. Out of 93, 558 rats examined, four were found to be infected with the disease. One case of human plague developed in Oakland, and was traced to Contra Costa County, where there is a plague among the squirrels. One of the most serious problems now before the health authorities is the destruction of the ground-squirrels. No case of human plague developed in Seattle, Wash. Among the rats, ten were found having the disease.

Sawdust for Constipation.—Two European physicians for this condition make use of wheat bread to which fine sawdust, beechwood preferred, in the proportion of one ounce to the pound of dough, has been added. As high as ten per cent of sawdust may be added without altering the appearance or the taste of the bread, so it is said. Good results were obtained by this method in eighty cases. The sawdust was not digested, of course, but by mechanical action, it increased the intestinal activity, and favored evacuation.

Scarlet Fever From Udder Disease.—Recent inquiry into a London epidemic of four hundred cases of scarlet fever traced to a certain dairy has confirmed the belief that in some cases at least, scarlet fever may be caused by drinking milk from cows having what has been called the "Hendon disease," an inflammatory disease of the udders, following calving. In the present instance the outbreak began shortly after introduction into the herd of three or four cows which had recently calved. The calf of one of these cows, after suckling the mother for four or five days, died.

Are Native Americans Reactionary?—It is reported that it has been most difficult to secure adequate legislation enforcing proper reporting of deaths, in those States having the largest proportion of native population. It is to the defective laws in these States that we largely owe the fact that our vital statistics are the laughing stock of European statisticians. Over there national legislatures do not have to face the bugaboo of "State rights" in matters having a national interest; and for that reason they do not have such a check-board condition as regards marriage laws, divorce laws, medical practise laws, and the like, which should all be treated from a broad national standpoint, and not from any narrow sectional standpoint.

What Boston Is Doing to Lessen the Hazards of Infant Feeding

(Concluded from page 80)

and by its efficient follow-up system through the visits of the trained nurse to the homes, it serves to uplift in a most far-reaching way whole circles of families. The problem of infant mortality is not confined to the larger centers. The smaller cities and towns have their own problems at least as grave, and in them there is no reason why efforts, modeled along similar lines, should not prove as satisfactorily helpful.

The committee on milk and baby hygiene desires constructive criticism of its methods and results, and seeks to learn

from every fruitful source. It desires to be of the utmost service to every baby, anywhere, and stands ready to furnish information and advice based on its own experience and corrected errors, to all desiring to help a child; for we remember that "he who helps a child helps humanity with a distinctness and a definiteness which no other help given to human creatures can possibly bestow," and our highest aim is "to assist in the physical, mental, and moral uplift of humanity through the individual and the home."

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