

LIFE & HEALTH

ONE DOLLAR A YEAR

10 CENTS A COPY

WASHINGTON, D. C.





MAIN BUILDING

NEW ENGLAND SANITARIUM

MELROSE (BOSTON), MASS.

Is the largest and best-equipped institution in the Eastern States, employing a rational system of physiological therapeutics.

The Sanitarium is situated only **six miles from Boston** in the midst of a **magnificent park** of 3,500 acres of beautiful forest reserved by the State.

The institution includes **five large buildings** well equipped with **modern conveniences**, and with every appliance for the successful treatment of disease, including the **Hydro-Electric Bath, Electric-Light Bath, Russian Bath, Massage, Manual Swedish Movements, Electricity, and X-ray**. Patients are attended by **experienced physicians and well-trained nurses** of both sexes.

A postal will bring a beautifully illustrated booklet which will tell you the rest. Address,

NEW ENGLAND SANITARIUM - Melrose, Mass.



Hygiene and Physical Education

*First Number, March, 1909
Subscription price, year, \$2;
20 cents per copy. Published
by The F. A. Bassette Com-
pany, Springfield, Mass.*

A monthly magazine devoted to facts, methods, and movements for national health, representing the following departments.—Personal Hygiene, Public Hygiene, School Hygiene, Athletics, Playgrounds, Physiology of Exercise, and Physical Education.

Kindly address all articles, news items, and other contributions to Wm. W. Hastings, Managing Editor. All communications with reference to subscriptions, advertisements or other business details should be addressed directly to

The F. A. BASSETTE CO.

Germona Building

SPRINGFIELD,

MASS.



A Quiet Rural Retreat

OPEN ALL THE YEAR

The Battle Creek system of treatments. Specially trained nurses. Electricity, baths, massage, diet, dress, fresh air, and proper exercise, together with all natural and rational methods known to modern medical science, produce the splendid results for which we, with over 70 other affiliated institutions, are famous.

Ambulance or trained nurses will meet any train day or night upon due notice.

The Wabash Valley Sanitarium

La Fayette, Indiana

CITY TREATMENT PARLORS

414 Ferry Street

Write for Catalogue C

The Atlanta Sanitarium

Is situated on a quiet street in the residence portion of the city of Atlanta, which possesses a temperate climate of remarkable healthfulness. A beautiful park of 140 acres is within five minutes' walk of the Sanitarium. With modern equipment, experienced physician, and skilful nurses of both sexes, the institution is prepared to train the sick back to health. Special attention paid to diet. No contagious or objectionable diseases received for treatment in the institution. The institution makes use of physiological therapeutics, including Hydrotherapy, Mechanotherapy, Massage, Swedish Movements, and Physical Culture, Electric-Light Baths, Hydro-Electric Baths, and Electricity. The management aims to make of the institution a retreat where not only scientific physical aid may be rendered to the sick, but where peaceful associations of a home may be enjoyed by the patient. For further information address



ATLANTA S. D. A. SANITARIUM, 243 S. BOULEVARD, ATLANTA, GA.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

ST. HELENA

CALIFORNIA SANITARIUM



*The largest and best-equipped institution west of the Rocky
Mountains, making use of a rational system
of physiological therapeutics*

Every advantage of a thoroughly equipped medical institution combined with the conveniences of a modern hotel. Physicians of long experience in general practise and surgery. Well-trained nurses of both sexes; polite and agreeable attendants. Delightful climate the year round. Beautiful mountain scenery. No contagious or infectious diseases admitted.

Write for large illustrated descriptive booklet.

California Sanitarium

SANITARIUM,

NAPA CO., CALIFORNIA



The **Boulder-Colorado Sanitarium** is a well-equipped and well-regulated institution for the treatment of all chronic disorders. It is the only Sanitarium in the Rocky Mountain region intelligently employing the same system of rational treatment and conducted on the same general health principles as the Battle Creek (Mich.) Sanitarium.

The buildings are equipped with all modern conveniences, including **Steam Heating, Electric Lights, Elevators, Gymnasium; Baths** of every description, including the **Electric-Light Bath, Massage, and Manual Swedish Movements; Electricity in every form. Classified Dietary, Laboratory of Hygiene** for bacteriological, chemical, and microscopical investigations; experienced **Physicians and well-trained Nurses of both sexes.** No contagious or offensive diseases are received in the institution.

Write for catalogue and card of rates. Address—

Boulder-Colorado Sanitarium, Boulder, Colorado.

TRI-CITY SANITARIUM, Moline, Ill.



AN institution of physiological therapeutics equipped with every appliance that modern science can provide for the treatment of the sick; including **Galvanic, Static, Sinusoidal, and Faradic electricity, X-ray, Violet ray,** and radiant heat of all kinds. A gymnasium and a Swedish mechanical movement and massage department are at the disposal of the patient. These are fully equipped, and include vibration of every kind beneficial to invalids.

Besides the above, the splendidly equipped treatment-rooms provide for the use of all forms of hydrotherapy, such as electric-light baths, hydro-electric baths, Nauheim baths, shampoos, salt glows, and packs of all kinds. Contagious and infectious diseases not received.

A postal will bring a beautifully illustrated booklet free.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

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
G. A. HARE, M. S., M. D. } - Associate Editors
D. H. KRESS, M. D. }

Subscription Price \$1.00 a year
To Foreign Countries \$1.25 "
Money orders payable to Washington, D. C.

Published monthly by
REVIEW & HERALD PUBLISHING ASSN.
TAKOMA PARK STATION, WASHINGTON, D. C., U. S. A.

Entered as second class matter June 24, 1904, at the post-office at Washington, D. C., under the Act of Congress of March 3, 1879.

Unsolicited manuscript, if rejected, is not returned unless accompanied by return postage.

All matter pertaining to subscriptions, renewals, advertisements, or other business should be addressed to Life and Health, Takoma Park, Washington, D. C.

Manuscript and correspondence relative thereto should be addressed to the editor.

Questions or correspondence relative to any of the departments should be sent to the head of that department.

Question Department

The editor can not treat patients by mail.

Those who are seriously ill need the services of a physician to make a personal examination and watch the progress of the case.

But he will, in reply to questions, give brief general directions or state healthful principles on the following conditions:—

1. That questions are WRITTEN ON A SEPARATE SHEET addressed to the editor, and not mixed in with business matters.

2. That they are LEGIBLE AND TO THE POINT; long letters most likely go into the wastebasket without reply.

3. That the request is ACCOMPANIED BY RETURN POSTAGE.

Forthcoming Articles

IN view of the rapid apparent increase in pellagra, or "corn disease," within the past year in various widely separated sections, the forthcoming article, by Dr. O. C. Godsmark, treating on this subject, will be especially timely.

Starchy food digestion is a very common ailment, and one that sometimes causes great annoyance and anxiety. A paper by Charles Cristodoro considering this subject gives suggestions that may prove invaluable to sufferers from this form of stomach disturbance.

Mr. Cornforth, who in this issue gives instruction regarding cereals, will follow it by an article giving directions

for the preparation of each kind of grain.

No more important topic can well be considered than the use, as a food, of cow's milk. Though it is a valuable and almost necessary article of diet, milk often carries possibilities for disease which should be comprehended by all. A series of articles on milk will give valuable information, which may help to develop such an interest in pure milk as will inaugurate a movement for a better supply.

Not the least important feature of each issue of this journal is the matter selected from other periodicals, either as "Current Comment" or "Abstracts," or that receiving editorial comment in the "Medical Forum." These departments give the pith of the thought of other periodicals on health topics.

Mrs. McKee, matron of the Michigan Home for Girls, who is devoting her life to the work of helping the fallen and warning others, will give another of her series of practical talks to parents.

Signs of the Times

THIS is an illustrated, religious, prophetic, educational, and temperance journal, devoted to the exposition of the gospel as found in both the Old and New Testaments, and as preached by Christ and his apostles.

The fulfilment of the prophetic portion of the Scriptures, as shown by the important events constantly occurring, is made especially prominent.

Each number contains a Bible reading on some important topic, and in its various departments will be found something of interest to every member of the family. The *Signs of the Times* is emphatically a family journal and worthy a place in every household.

Subscription Price

Weekly edition (52 numbers), \$1.50 a year.

Monthly magazine, \$1 a year.

Combination offer: Weekly journal and Monthly magazine, \$2 a year.

Send for sample copies.

SIGNS OF THE TIMES

Mountain View, - - - California

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

CONTENTS

GENERAL ARTICLES

Why Reforms in Eating Are Sometimes Disappointing, <i>D. H. Kress, M. D.</i>	647
Physical Culture for General Development, <i>Herbert M. Lome</i>	650
Parental Responsibility, <i>Mrs. W. H. McKee</i>	655
The Moderate Drinker, <i>L. D. Mason, M. D.</i>	657
The Pineapple Industry	661
Hygienic Working Dress, <i>Lauretta Kress, M. D.</i>	663

HEALTHFUL COOKERY

Cereals, <i>Geo. E. Cornforth</i>	666
---	-----

RATIONAL TREATMENT IN THE HOME

Treatment of Pneumonia, <i>H. F. Rand, M. D.</i>	669
--	-----

CURRENT COMMENT

Hereditary Influence of Overeating—Individual Drinking Cups—The Young Mother and the Fat Hog—Food Intoxications in Childhood—Costly Silence—Education at the Expense of Health. The Conquest of Malaria	672
---	-----

ABSTRACTS

"Alcohol Prepares the Bed for Tuberculosis"—Chronic Bronchitis—Hygiene of the Air-Passages—The Nervous Child.	678
--	-----

MEDICAL FORUM

The Benzoate Controversy—Meat Inspector Shocked by Conditions, Resigns.	683
--	-----

MEDICAL MISSIONARY AT WORK

Rio de Janeiro, Brazil, <i>H. S. Prener</i>	685
Sketches From Chinese Life, <i>Percival J. Laird</i>	686
Native Medical Treatment	688

EDITORIAL

Pure Milk Versus Cheap Milk—The Demand for the Untrained Nurse—The Hookworm Disease—Pellagra.	689
--	-----

TUBERCULOSIS NOTES

.....	693
-------	-----

NEWS NOTES

.....	694
-------	-----

TERMS: \$1 a year; 10 cents a copy. Special rates in larger quantities.

POSTAGE IS PREPAID by the publishers on all subscriptions in the United States, Canada, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, and Mexico. To all other countries in the Postal Union the price is \$1.25 a year.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old address must be given. The notice should be sent one month before the change is to take effect.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express-order, or Money-order, payable to order of Review and Herald Publishing Association. Cash should be sent in Registered Letter.

Address, Review and Herald Publishing Assn., Takoma Park Station, Washington, D. C.

OUR GUARANTEE TO EACH SUBSCRIBER. We guarantee the reliability of every advertisement inserted in *Life and Health*. We want every subscriber to feel that he can deal with our advertisers with the fullest confidence of fair treatment.

If, notwithstanding our most thorough investigation of all advertising submitted for publication, an advertisement should be published through which any subscriber is dishonestly dealt with or imposed upon, we request that full particulars be sent us at once so that we may take proper action for the protection of our readers.

The conditions are: 1. That subscribers in writing to advertisers shall say that the advertisement was seen in *Life and Health*; and 2. That the particulars shall be sent us during the month the magazine is dated which contained the advertisement.





MOUNTAIN ROAD IN THE BERKSHIRES



Vol. XXIV Takoma Park Station, Washington, D. C., November, 1909 No. 11

Why Reforms in Eating Are Sometimes Disappointing

D. H. Kress, M. D.

IT has often been observed that attempted reforms in diet do not always result in improvement of health. This has been a source of disappointment to both physicians and patients. We have been forced to recognize that something more than a change of food is needed for the dyspeptic or for the one suffering from auto-intoxication.

In the first place, no matter how wholesome the food is, one must relish it in order to be benefited thereby. When food is eaten mechanically, its presence in the stomach creates a flow of digestive juice of inferior quality. According to Pawlow's experiments on dogs, we are to infer that the sight, smell, or thought of some appetizing dish will cause a flow of saliva and stomach juice possessing more digestive power than the juices formed by mechanical eating. Disappointment in getting the food desired is probably responsible for many attacks of indigestion, for if the digestive juices are especially adapted for the digestion of the food thought of or desired, it stands to reason they are not so well adapted for the digestion of any other food.

In the past much ignorance has existed regarding the wholesomeness and the nutritive value of foods. The only thing consulted was the appetite. Our

forefathers ate what they relished. Fortunately, hard outdoor work gave them a relish for simple foods, and poverty made simple foods and few varieties a necessity. The digestive fluids, as a result, were always of a superior quality, and consequently indigestion was infrequent.

Later, outdoor employment was exchanged for city life and the office, and naturally simple foods were no longer relished. Nature said, "He that works little should eat little," and wisely restricted the appetite. Delicacies, complicated dishes, and highly seasoned foods were invented to tempt the appetite, the result being indigestion and disease.

The prevalence of disease and physical degeneracy has forced upon us the need of studying foods as to their nutritive value and wholesomeness, and the result of various combinations of foods. But the results of the reform dietary have not always been entirely satisfactory, the foods, although intrinsically more wholesome, being sometimes more difficult to digest because they were not relished. So one of the lessons food reformers have learned is that it is unwise to ignore the appetite.

The gormand eats merely what appeals to the palate, and the copious flow of appetite juice enables him to digest

double the quantity he actually needs. He puts on adipose tissue and weight, and looks the picture of health. He is, however, prematurely wearing out his digestive organs, and shortening his life. An abundance of adipose is not, by any means, an indication of health.

The ordinary meal taken by those who pay no attention to the wholesomeness of food begins with some tasty, highly seasoned soup, and ends with a sweet in the form of a pudding or some kind of pastry. The meal begins and ends with a pleasurable sensation, which stimulates the appetite and causes a copious flow of digestive juices.

While it is unwise to use harmful and highly seasoned foods, we must recognize the need of providing foods that please the eye and the palate. A spoonful or two of tasty soup, a little fruit, or something else that is relished, will often create an appetite which will lead to the enjoyment of the entire meal. There is no harm in taking a little innocent relish to improve the appetite. The danger is in making the exception the rule. Soups were at first employed chiefly as a relish, only two or three spoonfuls being taken at the beginning of the meal; later their use became more common, the meal being composed largely of liquids. This has proved an injury.

Every one has likes and dislikes that must be respected; but gradually the appetite may be educated to relish only the simplest and most wholesome foods. One who has the same relish for wholesome foods that the epicure has for unwholesome foods, is on the highway to real and lasting health.

For those who are ill, it is especially important not to make eating too mechanical. Foods that are unrelished should not be forced upon them. It is more important for them to eat foods which are relished than to eat foods

even more wholesome which are unrelished. When the mind rebels against food, the stomach rebels against it as well. It would seem, in some instances, that owing to the diseased condition of the stomach, the juices are very largely formed by the stimulation of the appetite, therefore nutritious, wholesome foods should be attractively and tastily prepared, so as to tempt the appetite and lead to real enjoyment.

Mechanical eating causes dyspepsia, even if the foods are wholesome, and the greatest precaution is taken in their combination. The only successful way of bringing about reforms is by a transformation of the mind. It is possible to acquire a relish for foods once disliked. To this end, knowledge must precede reform. To recognize in food the good it contains, will enable a person to appreciate it above inferior foods, and also to enjoy, relish, and digest what otherwise would be unenjoyable and indigestible.

It is impossible for one who worries, or becomes impatient or angry, to have good digestion, even if the foods are good. By this class, apparent benefit from the use of drugs, patent medicines, and narcotic poisons, as alcohol, tea and coffee, tobacco, etc., is sometimes obtained. These stupefy or partially paralyze the mind, making it less sensitive, so that business cares, anxieties, home sorrows, and other influences which tend to cause mental depression are for the time forgotten. Consequently, while under their influence, digestion may be improved. The difficulty is that from any such artificial exhilaration there later follows a still greater state of depression, which in turn calls for another and often an increased dose of the same narcotic. To remain free from worry and other depressing influences by the use of narcotics, it becomes necessary to continue in a state of mild intoxication. This is

the condition of many who seem to be in the pink of health, and who claim to be able to eat anything.

While these narcotic poisons seem to perform marvels, they prove to be poor substitutes for the real remedy,—an actual and permanent change of mind, leading to a cheerful reformation of all wrong habits of life. There must be peace and contentment in order that the digestive organs may do their best work, for the quality of the impulses sent forth from the mind determines the quality of the work done by the digestive organs.

The lower creatures do not require delicacies or narcotics; they are content with a simple fare. The horse is satisfied with his meal of oats. In fact, all creatures, aside from civilized man, if left to select their own food, prefer to take it direct from nature; and from the simple foods thus obtained they derive their great energy and the elements out of which to construct strong bones and muscles.

Uncivilized nations or tribes live in the same simple manner. They do not always have the most suitable foods, it is true, and therefore their example can not be followed by intelligent men and women, but their habits are simple, and their wants as a rule not greater than their needs. They do not feel the need of the complicated mixtures, puddings, and pastries, etc., used among civilized races. The peasants of various civilized countries also subsist on simple foods, and are usually content with one or two varieties at a meal. The Irish peasant has milk and potatoes; the Italian and French, macaroni and chestnuts; the German, chiefly black (rye) bread. The heartiest, healthiest, and happiest people are always to be found among those whose wants are not greater than their needs, and who are content with simple foods, served in the most natural manner.

Dr. Pawlow, in his experiments upon dogs, discovered that when meat was fed to an animal, the gastric juice formed was especially adapted for the digestion of meat. When bread was given, an entirely different gastric juice was formed. Milk produced a fluid differing from both the others. This shows that the normal stomach should experience no inconvenience or difficulty in digesting one or even two kinds of food at one meal. But when a great variety of food is eaten, it is no wonder that the stomach becomes confused in its work, and indigestion, fermentation, and autointoxication result.

From merely a health standpoint, it would probably be better to eat a simple meal composed of bread and meat than to eat so large a variety of complex messes. I would, however, not recommend either. The simpler and more natural the foods, the fewer and less complex the dishes, the better will be the health. The bread-and-meat diet, though simple, offers too many opportunities for the transmission of disease.

In the near future, among the better classes there will probably be less cooking of complex dishes and dainties. Sensible men and women are discovering that the foods that require little or no preparation aside from mouth preparation are in every way the best adapted for man's needs. Supercooked foods ferment readily. Better health would be enjoyed if more foods were eaten in their natural state, and those which necessitate prolonged cooking were left to the creatures for which they were originally designed. I am convinced from my personal experiment and from my experience as a physician, that the foods God gave to man while in perfect health and in a sinless state are the foods best designed to aid in maintaining health and also purity of life.

Takoma Park, D. C.



FIGURE 3

Physical Culture for General Development

Herbert M. Lome

OUTSIDE of those whose business it is to keep in physical "condition," there are comparatively few persons who possess a normal physique.

Exception may be taken to this statement by those who have a superficial knowledge of the laws of health, but the fact remains. A body that is "all run down" appears to be the rule, that of abounding virility, the exception. It is true that the first of these conditions is one of degrees, also that some one of such degrees is usually accepted as inevitable. But this does not alter the facts involved, neither does it lessen the responsibility of the individual in regard to the physical status of himself or others.

Now, when through ignorance, neglect, or vocation, the physique has been permitted to fall below the normal standard, the chances are that one part, or organ, will suffer more than others. But a system of general up-building or development through the medium of phys-

ical culture methods will almost always supply the needed remedy. Strengthening the body as a whole increases the strength of the portions most affected. Some conditions call for special treatment or exercises, such as will be considered in the next article of this series. In this paper it is the purpose to tell what should be done in order to bring about an approximate condition of health.

It is by no means difficult to find the chief cause of one's physical shortcomings. An examination of one's daily habits will supply the information, and suggest what is needed in the way of reformation. Usually, diet and lack of exercise are to blame. Want of ventilation in the home or the place of business is responsible for more bodily ills than the public suspects. The mental state has a marked effect on the body. Yet a consistent physical culturist can meet and overcome business or personal worries in a manner impossible to one who does not practise the science. Indeed, the ben-

efits which the brain derives from physical culture are almost as important as are those derived by the body.

Examining the factors which make for general development in the order just named, let us first of all make inquiry into the matter of diet. The American citizen as a rule imposes on, and even persecutes, his organs of digestion and assimilation. He begins the day by overloading his stomach with a breakfast of the "heavy" sort, the greater portion of the edibles swallowed being flesh food. Something of the same kind takes place at lunch time, and the dinner of the evening puts a further strain on his digestive system in the matters of quantity and quality. That is saying nothing about his tendency to "bolt" his food—a tendency that is responsible for no small proportion of the gastric ills which afflict our population. It should never be forgotten that a duly masticated diet, suitable to

the needs of the individual, is the keystone of health. Unless such a diet is adopted and persevered in, all attempts at body-building will prove useless.

The writer wishes to lay special emphasis on the necessity of thoroughly chewing the food before swallowing it. The first stages of digestion take place in the mouth. In order to prepare the food properly for its reception by the stomach, it must be completely saturated with saliva. The art of mastication *must* be practised by the seeker after

sound health. Yet how few honor this ordinance of nature. On the contrary, the "gobbling" habit obtains in the home and at the "quick lunch," and in consequence digestive troubles are common.

As to the food itself, it may be said that individuality counts in this as in

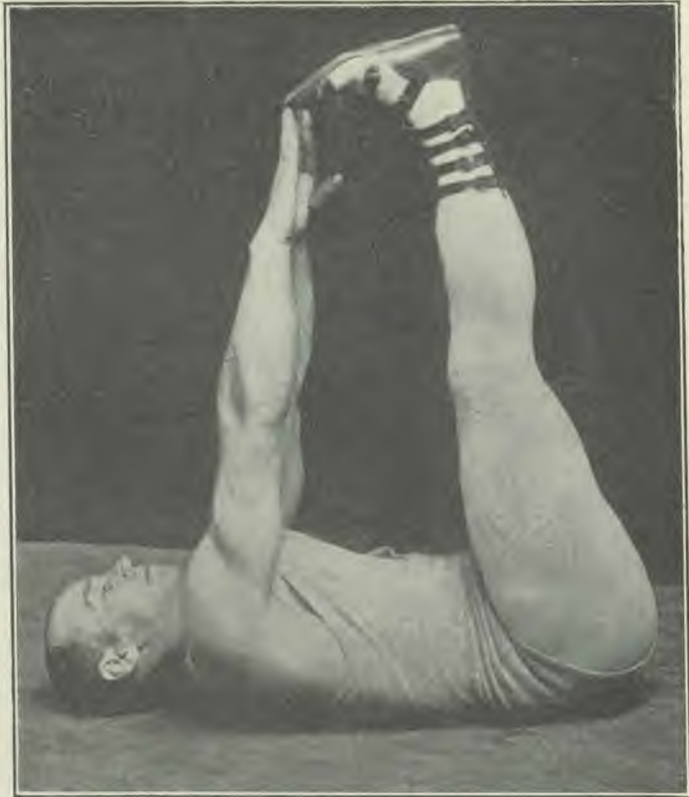


FIGURE I

other factors of physical culture. The diet of one man will not always be suitable for another. Thus, food rich in hydrocarbons or fattening elements would be appropriate to the person of spare flesh, but would be out of order in the case of one who exhibits a tendency toward adipose tissue. Yet the following dietetic rules may be followed by nearly all with benefit:—

Eat a light breakfast, consisting of cereals, fruit, whole-meal bread, and, if necessary, a glass of pure milk. It is

better, however, not to drink at all at meal-time. Do not take meat at breakfast.¹ The man who overloads his stomach with a steak or bacon in the earlier portion of the day, is putting a premium on his inevitable inability to discharge the duties which lie before him. The blood and the vitality are so engaged in getting rid of the load on the stomach, that there is little of either left for the use of the brain.

Let your lunch be light also. Repeat the breakfast as far as the type of food is concerned. Again be warned against letting the demands of business interfere with the duties of mastication. Avoid all stimulants, not only at this meal, but at all other meals of the day. Physical culture is unalterably opposed to alcoholic beverages, and to the undue use of tea and coffee. As far as the third meal of

the day is concerned, this may be said: Let it be in harmony with those already spoken of, in the matter of constituents. Meat, if any, should form but a small portion thereof. Eat in moderation, and never to excess. The writer, by the way, has found that two meals a day, one at

¹ The expression "at breakfast" may be superfluous.—Ed.

about 11 A. M. and the other at 6 P. M., are all that are necessary for health and strength. But this régime is not always possible to the average man.

In regard to exercise, let the seeker after physical normality, on rising in the morning do some easy work with a pair



FIGURE 2

of light dumb-bells for ten minutes or so. The nature of this exercise may be in accord with the requirements of the vocation or needs of the individual. If, for example, he has to stoop over a desk for the greater portion of the day, the movements which will throw back the arms and open the chest will be of the greatest benefit. The use of a little common sense in this connection will indicate what is needed. Do not exercise beyond the point of a sensation of slight fatigue. It is astonishing what a difference in the feelings and carriage of a man two weeks' use of the

dumb-bells will bring about. Other simple exercises may be taken, such as are shown in the illustrations given with this article.

After you have finished with the bells, take a sponge, dip in cold water, or if this is unpleasant, in tepid water, and give yourself a thorough rub down from head to foot. Dry off with a rough towel

until you glow. In addition to this, a tepid bath twice or thrice a week should be taken. The writer does not recommend the morning "cold plunge" that is so enthusiastically commended by some well-meaning but mistaken advisers. The person who can profit by this heroic treatment must have a rugged physique that is by far from common.

Before retiring at night, another rub down with a sponge, and a few simple calisthenic movements of such sort as will offset the strained and unnatural positions assumed during the daily vocation, may be recommended. Here again the intelligence of the student must suggest the nature of the movements. As for exercise in general, that of walking is the most beneficial. It calls into action practically all the muscles of the body, and, at the same time, stimulates the functions of the various organs of the system. Get up an hour or so earlier than is your

custom, and walk all or part of the way to business. Within a very few days you will note the result in increased vigor. This is saying nothing about your avoidance of the evils which attend the inhalation of a polluted atmosphere in a

close and crowded car. The riding habit of the average American is the cause of physical troubles of a varied sort.

As to other exercises, the opportunities afforded by large communities in the way of gymnasiums, natatoriums, athletic clubs, public parks, etc., are many

and comprehensive. This remark applies to both sexes and all ages. Whenever possible, let your exercising outside of the morning bells and ablutions be done in the open air and in the company of others. The stimulus afforded by companionship is an important factor in the good wrought by physical culture. Rowing, running, and the like are excellent exercises, and persistently and intelligently pursued are bound to yield returns in improved health. Do not forget that fresh air, plenty of it by day and night is essential to the man who is seeking a general development. To starve and poison your lungs is as

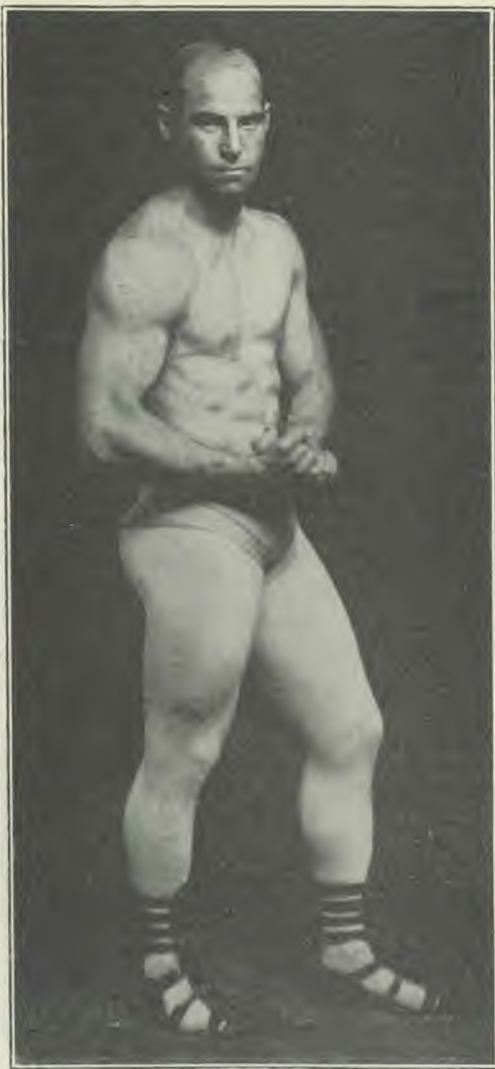


FIGURE 4

much a crime as is the starving and poisoning of your stomach. The absolute necessity of pure air seems to be ignored by a large portion of the community. See to it, then, that your home and office are alike well ventilated. Sleep with your

bedroom windows wide open at night, and you will feel morally and physically the better for so doing, and you will be immune to "colds." This class of maladies is not produced by an abundance of fresh air, but by a lack of it.

FIGURE 1.—Lie flat on the back, the arms extended on a line with the head, the thumbs touching, palms upward. Next, keeping the back of the head and the body from the waist up touching the floor, raise the legs and the arms until the toes and the tips of the fingers meet over the center of the body. (See illustration.) Hold this position while you count ten, then slowly lower the legs and arms until they have resumed their original position on the floor, count ten, and repeat. Continue until a sensation of slight fatigue is felt, then rest for two minutes. Then repeat. A capital all-round exercise, with special reference to the muscles of the abdomen, arms, and legs.

FIGURE 2.—Place two stout chairs back to back, and at such a distance apart that they allow a comfortable balance when the body is in the position shown in the picture. Stand between the chairs, place the hands on the backs, and slowly raise yourself in the manner illustrated. Now draw up the legs, hold the position for a moment or so, lower them, and next *lower the body* as far as you can without feeling undue effort or strain; then try to raise the body to the position photographed. You will probably fail during the first few attempts, but will finally succeed if you persevere. When you lower the body as directed, be sure that your feet do not touch the ground. This is an excellent exercise for the muscles of the chest, the arms, and the abdomen.

FIGURE 3.—Take the position shown in the photograph, the weight of the body resting on the tips of the toes and the palms of the hands.

The latter should be placed a few inches to the right and left of the body, the fingers pointing somewhat outward. Now lower the body until the chin touches the floor, then raise yourself again. The movement throughout should be done with deliberation. Be careful that the relative positions of the toes and the hands are not changed during the exercise. This exercise brings into play the majority of the muscles from the waist to the neck. It is particularly good for the chest and the abdomen.

FIGURE 4.—This picture shows an exercise for the muscles of the hands and arms. It is a "resistance movement," to use a physical culture term, by which is meant that the force of one set of muscles is brought into play by the counter-force of another set. Place the hands together, palm to palm. Now bend the hands outward in such a manner that while the upper hand is pressing downward, the lower is pressing upward. Bend as far as possible, then reverse, bending the hands toward the body. Next, repeat the movement from right to left, using the balls of the thumbs as the points of leverage. The effect of this latter movement will be at once felt on the biceps and triceps. Repeat from left to right.

FIGURE 5.—There are two ways of doing this movement, first, by lying flat on the back and raising one's self to the position shown, and, secondly, by sitting upright and lowering the body backward until you assume the posture here photographed. The first method is the hardest for untrained muscles to accomplish, but is of the greatest benefit. Practise with the second method will in the course of time enable you to accomplish the first. The movement throughout should be done with the utmost deliberation. After each effort you will probably experience some fatigue; wait until this has disappeared, and then resume. This is a most beneficial exercise for the muscles of the abdomen, back, and certain of the chest and leg muscles.

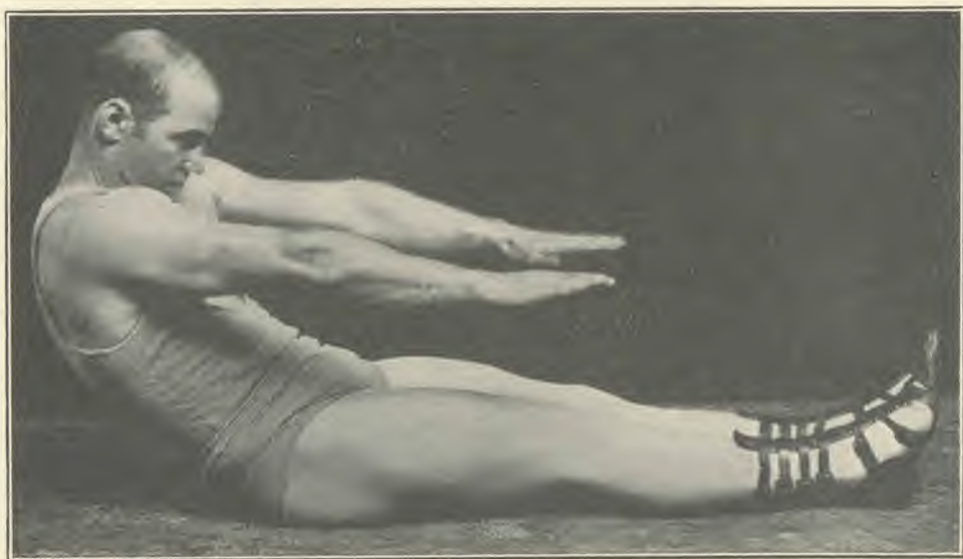


FIGURE 5

Parental Responsibility

Mrs. W. H. McKee, Matron of the Michigan Home for Girls



A CHILD is not a toy, but a being with powers—mental, moral, and physical—to be developed. Too much emphasis can not be placed on the necessity for an intelligent conception of this fact by parents. Much wisdom is required in dealing with developing minds. Proper respect for parental authority should be established in the home. But in order to retain the confidence of the growing mind, the authority should be maintained by instilling principles of that obedience which springs from love. Such a course will bind to the parent heart the sure devotion of the child, and if adhered to, will be an almost certain preventive of social blight, which might otherwise enter and mar the happiness of the home. The children should understand that father and mother are a unit as to discipline and management. If differences occur, they should always be adjusted during the absence of the children. The influence of *mutual* godly counsel and training, can not be overestimated.



Parents should never acquire the habit of telling of the child's smartness, or cuteness, in his presence. His self-conceit may be naturally large, without cultivation.

Consulting the child as to what he likes or prefers, while too young to exercise judgment or choice, educates him to open rebellion if his wishes are crossed.

The mother should exercise her own judgment as to what is best for the child to eat, wear, and do, until he learns to recognize the wisdom of love's guidance. This principle applies to mothers who really know more than their infants, and are guided by principle rather than a mere sentimental emotion. It is "mistaken kindness" indeed

to humor a child's every wish, for it is sure to develop a spirit of open conflict, when the mother's maturer judgment has clearer vision.

When the novelty of babyhood has worn away, and the effect of indulgences and lack of discipline become apparent, the conflict of unsubdued wills in both

parent and child, occurs. Confidence is lost. The gulf widens. The father then takes an attitude of stern, cold severity, while alternate weeping and scolding is the mother's resort toward controlling the pitiful object of unwise parental management.

As years go by, there comes to the child the recognition in its own soul that its longing desire for sympathy and love, in the real meaning of those words, can never be met, and "home" means thereafter merely a place to eat and sleep. If others, with no claim to the affections of growing boy or girl, persuade and influence away to the great world outside, what wonder the disappointed, perhaps reckless, spirit seeks *something* to meet its craving for *companionship*, which might have been the parents' privilege to satisfy.

Two very necessary points need to be enforced in early life; to wit, self-control in eating, and quiet taste in dress. A wise mother will not study the fashion-plates as her only text-book, aside from the novel. Fashion implants love of admiration and vanity, which, coupled with a lazy idleness, leads more girls to ruin than any other causes. Pride of "pretty clothes," taught from babyhood, is a large factor in the downfall of many girls. Love of dress encourages wrong thoughts in the heart of the wearer, and rouses base passions in men.

To allow children to grow up in ignorance of the wolves prowling abroad to destroy their virtue and health of soul and body, is nothing short of criminal in parents. Remorse and regret are twin tormentors in many homes. Warning given six months before really needed, is better than one minute too late. Know who your children's associates are, and the books they read. Purity of life should be the touchstone of all character building. The ease with which sacred ties and vows are broken in divorce

cases, is a serious factor in the lives of children who suffer under these social conditions.

Lax precept and example in the home, failure to control the appetites and passions in early life, due either to ignorance or to indifference, is almost wholly responsible for the loose moral condition of society to-day. What kind of home can it be where girls are out until one in the morning, night after night, and no concern is felt by the thoughtless mother? Statistics show ten thousand girls ruined annually in one of our large cities; and what is true of large cities is true of every town, village, and hamlet, proportionately.

In one city, in three cafés, three hundred fifty-seven girls were found reveling with men, some of whom had met their companions for the first time. Their mothers, either carelessly or indulgently ignorant of their whereabouts, supposed them to be visiting with friends in their homes. The theater, the café, and the brothel are the devil's triple alliance. The gratification of appetite and passion is the overwhelming and prevailing sin of the age. The mind becomes confused, the judgment perverted, and the will too weak to resist the tempter's power.

I wish to urge upon the attention of parents the fact that there has never been a time in the world's history when there was such a determined effort to lure away and destroy young girls as at the present time.

No mother's girl is safe. Hired fiends, in attractive garb and speech, are everywhere seeking to lure away and destroy the innocent or willing victims of their blandishments, even entering camp-meeting grounds to entice the daughters of Christian families into city dens of iniquity. Too great care can not be taken to know always where our children are, and who their companions are.



The Moderate Drinker¹

L. D. Mason, M. D., Brooklyn, N. Y.

I PROPOSE to speak of one of the principal causes that militates against civic righteousness and the health and prosperity not only of municipal, but also of national life, and to deal with an underlying phase of it not usually or sufficiently emphasized. I refer to moderate drinking, meaning thereby the so-called temperate habitual use of alcoholic beverages. The term can not be used in a scientific or practical or safe sense. There is no law making the habitual use of alcoholic beverages safe, even in moderate quantities. We can not say to any individual, Take a glass of wine three times a day with your meals, and we will guarantee that you will not exceed that quantity, or that you will not suffer from some form of alcoholic change or

degeneration; for we do not know how much or how little will awaken a dormant alcoholic tendency; how much or how little will in time plunge the so-called moderate drinker into the abyss of uncontrollable drunkenness.

A popular fallacy is that one may remain always a moderate drinker; that he has the matter completely under his control; that he is master of the situation;

that he can play with the serpent and not be bitten. This fallacy is the comfort of the average moderate drinker and the ruin of many. If he is subjected to business crises, mental shock of any kind, prolonged strain, etc., the moderate drinker will not infrequently drink to excess, because he requires more in order to secure a sedative effect than formerly. He has established a tolerance that

demands a continual increase to secure the physical and mental anesthesia that new environments and conditions demand. His accustomed dose will not be sufficient under abnormal conditions of mental strain or physical distress. The drink habit is progressive, tolerance is easy to establish, larger quantities are required to meet the

daily need; it is exceptional for one to remain a moderate drinker. Habitual drinkers were once moderate drinkers. The habit starts from the first glass; in some cases its course is run more rapidly than in others.

What constitutes moderate drinking? The popular notion is, any amount this side of inebriation. The fact is, science has failed to establish a safety limit, because that limit would differ in every case. There can be no such zone of safety. The conditions and the logic of the case and experience will not admit of

Moderate drinking is a delusive term. There is no amount of alcohol that can be considered safe to use as a beverage.

Any unusual mental strain may cause a moderate drinker to begin drinking heavily.

Heavy drinkers were once moderate drinkers, and many who now drink moderately will develop into regular toppers.

Often there is an unsuspected hereditary tendency which may be lighted up by so-called moderate indulgence.

Fermented communion wine or the social glass may be sufficient to stir up a latent alcohol appetite, and end in inebriety.

¹From an address on "The Fallacy of Moderate Drinking, or the So-Called Temperate Use of Alcoholic Beverages," delivered at the World's Temperance Centennial Congress, Saratoga Springs, N. Y.

it. Under no conditions is the habitual moderate use of alcohol safe, and any person or physician who recommends the use of alcohol habitually has advised the first step toward physical, mental, or moral degeneracy.

The most strenuous advocate for the food value of alcohol would not, in the light of our present knowledge, and in view of the dangers entailed and the responsibilities incurred, advise its use habitually, even in moderation. In case of hereditary appetite or of the reformed drunkard, its use would awaken the sleeping appetite, and plunge its victim into possibly irremediable excess.

The question of communion wine comes in here, and the conditions present the strongest possible plea for the unfermented juice of the grape; no reformed man, or man with a hereditary tendency for alcoholic excesses, should be kept away from the Lord's table because the wine contains alcohol. If we exclude alcoholic wine from our own table, why should we place it on the Lord's table? Why should we make almost compulsory in the most sacred sacrament of the church that which in our social life we reject as harmful?

I do not know how soon a person by the daily use of even a mild vinous beverage may acquire the habit. A few weeks, or possibly less, might be sufficient to develop the drink-habit craze. In the case of the reformed drunkard one glass might be sufficient. In the case of a man with fair heredity, it might take longer, and possibly he might remain free from serious neurotic changes, and suffer only from the glandular form, due to cirrhosis, or fatty degeneration.

As regards the effect of alcoholic beverages, even in moderation, every man is a law unto himself; but all suffer some degree of functional disturbance and alcoholic degeneracy. The occasional excessive drinker is safer physically than

the habitual moderate drinker, for the latter keeps his blood constantly alcoholized, while the former, at least during the interval of his debauches, has a chance to recover a normal blood current. Avoid the use of alcoholic beverages in moderation, and you will never use them to excess.

How many of us have the history of a good family heredity, extending even one generation back, with no alcoholic taint in the direct or collateral branches of the preceding generation? If there is no hereditary tendency to deal with, disease or injury may act as a predisposing cause to alcoholism, which may be excited by a single glass of wine. A person with a history of sunstroke, fracture of skull, concussion of the brain, or cerebral disease, should be strictly cautioned against the use of alcohol in the slightest degree.

How extremely careful the physician should be in advising alcoholic beverages, even in moderate quantities, without a previous knowledge of the history of the case, the parentage, and a possible record of preceding injury or disease. In the light of modern facts and scientific truth, it would seem almost impossible for the intelligent, conscientious physician to recommend the habitual moderate use of alcoholic beverages in any form, even medicinally.

Moderate drinkers are more liable to disease than total abstainers, and are regarded as an inferior risk by underwriters for insurance. Their children are subject to various nervous diseases, with a special tendency to inebriety, and are not so healthy, other things being equal, as are the children of total abstainers.

The mother who uses alcoholic beverages habitually, even in moderation, may beget a child with the alcoholic tendency, or with physical or mental defects due to alcohol; the nursing mother using alcoholic beverages, may seriously affect her offspring; or the taste for alcohol

may be cultivated, as is the custom among the lower classes, by an occasional drop of the "best gin," for infantile colic or sleeplessness.

Epilepsy, insanity, idiocy, imbecility, degeneracy, weak vitality, and short life, mark the track of the hereditary alcoholic degenerate, the starting point of his career being too often the so-called moderate use of alcohol by a parent who never was drunk, who prided himself on his self-restraint, and though looking with pity on the man who could not drink and keep sober, yet gave to the world a posterity of weaklings, neurotics, idiots, lunatics, and alcoholic degenerates.

There is only one way in which we can prevent the moderate drinker from lapsing into the habitual drunkard or begetting a line of alcoholic degenerates, and that is to touch not, taste not, handle not, the accursed thing; for scientific experiment has proved that if alcohol is used even in moderate quantities, it will affect the higher nerve-centers, and eventually produce organic lesions and permanent tissue changes.

Why should we use alcoholic beverages at all? In the words of Prof. Dr. A. Gourget, a native and resident of a wine-drinking country: "There is no such thing as a healthful beverage containing alcohol." The effects of two drams of alcohol can be measured in its narcotic and depressing effects on the nervous system. A glass or so of beer or a moderate amount of wine drunk at a public dinner will so unloose the tongue and destroy the sense of propriety and environment that the after-dinner stories are often bizarre and on the verge of indecency, attesting the old adage that when the "wine is in, the wit is out;" and all this within the limit of apparent sobriety, or so-called moderation.

Therefore, from the standpoint of physical and moral considerations, as well as the conditions already alluded to,

we believe and earnestly recommend that the term moderate, or temperate, use of alcohol be excluded from our nomenclature as indefinite, misleading, unsafe, unscientific, and impracticable. Fortunately, medical science is gradually eliminating alcohol from the pharmacopœia.

Let me refer to the family bottle or private flask, kept or carried for emergencies. Probably if there were fewer emergency bottles, there would be fewer emergencies. Men who carry a whisky flask have emergencies quite frequently, and the emergency is that they feel the need of a drink. The mere sight of the family bottle is suggestive, and will create an emergency. Cases are exceptional in which the family bottle has been of any value. In the large majority of cases it has done more harm than good. Yet there are temperate persons who would not feel safe unless they knew they were within a few feet of a whisky bottle, and that it was readily accessible.

My experience is that the use of the whisky flask by the laity, in cases of emergency, has been more productive of harm than of good. I can not recall any desirable results from the emergency dose of the family bottle or private flask that could not be accomplished, in faintness, for instance, by the proper substitutes, that is, the prone position, free respiration, loosening the tight clothing, fresh air, and ammonia or smelling-salts; and, when the patient can drink, hot water may be given, or it may be applied to the body if the case demands.

In the use of wines or brandy as flavoring, the temperate may step over the line. The idea of mince pie or plum pudding without brandy, or hot sauce without a flavoring of sherry or Madeira, is culinary heresy. On the basis of a social excuse, we put poison in our food. Let us not tolerate a poison in our homes as a remedial agent, or in our kitchens for culinary purposes or flavoring for food.

What shall we say of the social glass at the wedding or at the occasional festive occasion? Happily, we believe that the time is coming when alcohol in any form will be regarded as a non-essential on these occasions, and even now a man can maintain his social standing and influence and not indulge in either the moderate or the occasional use of alcoholic beverages, and so avoid their attendant dangers.

But there is another and more serious phase of the question concerning so-called temperate use of alcoholic beverages, and that is from the view-point of example. I am aware that some eminently respectable persons use alcohol medicinally or as a beverage, for years, never exceeding the limit they have established, and people point to these cases as examples of the remarkable results obtained from the use of alcohol and tobacco in a long and useful life.

The example of the respectable moderate drinker on the young and inexperienced is far more serious and wide-reaching than the exaggerated forms of drunkenness, or than the "terrible example" that presents the victim of the liquor habit in all its hideous aspect and deformity; for the moderate drinker pre-

sents the habit in the garb of respectability, safety, and even healthfulness. The doctrine and example of the moderate drinker induce some to use alcohol in moderation, which use may lead to its immoderate use, thus indirectly advocating intemperance by promoting a most dangerous fallacy. On the other hand, the sot who presents the terrible and debasing effects of alcohol in physical and moral degeneration, does not advocate the use of alcohol in any quantity. He is an example of the fact that the habitual moderate drinker is the predecessor of the habitual immoderate drinker, or drunkard.

I can not close this paper without calling attention to the fact that the drink habit may be innocently acquired through using patent or proprietary medicines containing alcohol. Probably there are many supposedly temperate persons today, who, through the medium of proprietary nostrums containing alcohol, are consuming more alcohol than the so-called moderate user of wine or spirits. All who take the temperance pledge should do so with the understanding that they will not use habitually such remedies, or so-called medicines.





The Pineapple Industry

NOT so long ago, man was restricted, so far as perishable foods are concerned, very largely to local products and the output of hot-houses. Now, with the great increase in transportation facilities, with wealthy companies formed for the purpose of producing, in favored climes and distributing to other lands, great quantities of foods, those in moderate circumstances can draw on countries widely separated for their food supply, each country being laid under contribution for the product it raises to perfection.

Among the luscious fruits grown under a tropical sun is the pineapple; and as we appreciate its virtues, it seems strange that formerly this fruit was regarded as most unwholesome; causing, in fact, cholera and other diseases. Now we know that this once-dreaded fruit actually possesses valuable medicinal qualities. Properly prepared, it is a very digestible fruit; and by means of its ferment bromalin—a kind of vegetable pepsin—it aids in the digestion of albuminous foods, and hence is a valuable addition to the dietary of one whose digestion of proteids is deficient.

It should be remembered, however, that the bromalin occurs principally in

the core, the skin, and the fiber. It is noticed, sometimes, that one's mouth is sore after eating a quantity of pineapple, particularly the fibrous part. The bromalin digests the lining membrane of the mouth. This may be obviated by not eating the fibrous part of the fruit, or



YOUNG PLANTS

by rinsing the mouth with water after eating of the fiber. Physicians who prescribe pineapple, usually order the green fruit; but the canned pineapple also has digestive properties, though not so energetic as to make the mouth sore.

Many fresh pineapples are shipped to this country from adjacent countries, particularly the West Indies; but it is impossible to ship the ripe fruit. Fruit anywhere near ripe spoils before it can be gotten to a distant market. What we are accustomed to, are small pine-



READY FOR PICKING

apples, picked green, and ripened in this country.

Did you ever hear of a field of fruit two and one-half miles square — four thousand acres of fruit? A West-erner often boasts of having a section sown to wheat, and we gasp incredulously—but that is only a mile square. The field I am going to tell you about is not on the broad prairies of Montana or the Dakotas, nor in the vast State of Texas, but is near Honolulu, in the Hawaiian Islands. Stranger still is the fact that this field is not plowed with great gang-plows, sowed, and left without further attention until the harvest is ripe; it is planted to fruit, and each plant is separately cul-

tivated for eighteen months by hand, the one piece of fruit (a pineapple) being picked, and the whole operation repeated. The pineapple industry is new in Hawaii. As recently as the year 1900 there were prac-

tically none raised there, and in less than ten years the industry has grown to such proportions that it takes over seven hundred men to harvest the crop on one plantation alone. This has been due to



A PINEAPPLE CANNERY

the, almost ideal climate,—it is semi-tropical, with a very small range of temperature, and the moisture is never lacking,—and the soil is perfectly adapted to pineapples. They grow under ideal conditions, and it is not surprising that

(Continued on page 671)



Hygienic Working Dress

Lauretta Kress, M. D.



MUCH is said concerning conventional and reform dress for the reception-room, parlor, and street, while but little is written concerning dress for the kitchen. Perhaps most

women use their cast-off parlor or street dresses for the kitchen,—dresses that have been worn for an indefinite time, and have gathered street dust,—garments that are frayed and fringed around the bottom, and perhaps have small tears which catch on the cupboard door or the oven door. Such a dress is seldom washable, and after a few weeks' wear it usually shows very plainly the fact that it has not seen the wash-tub. It is much more hygienic, much more appropriate, to have a dress made especially for the kitchen, one that can be washed frequently. For such purpose a plain

garment is always more serviceable. No frills are needed, neither embroidery nor lace. The simpler the garment, the better it suits its purpose.

A working dress should be short enough to permit walking up steps without the necessity of holding it up. Nothing is more annoying than to step on the dress when coming up the basement steps with arms full, and nothing is more

harmful than the position assumed while carrying a load and at the same time bending forward to hold up the dress.

The forward position crowds the lungs, and weakens the muscles of the back. Stair climbing is not necessarily hurtful; it is the wrong attitude often assumed while climbing stairs that does the mischief. A kitchen dress, then, should be short enough to permit walking up steps without stepping on it, and to allow bending forward without the skirt dragging on the floor in front, which is a serious objection to the old-fashioned Mother Hubbard, or, in fact, to any wrapper with fulness in the front. Every time one bends over to reach into the lower cupboard or into the oven, the dress drags on the floor in front, and should there happen to be water

spilled, the dress wipes it up, and becomes untidy in a short time. To avoid dragging in front, the dress should be gored.

Another feature valuable in the house dress, is provision for rolling up the sleeves. They can be made in the form of a long bishop sleeve, buttoned at the wrist. This permits them to be rolled up when necessary. Another excellent way is to make them three quarter length.



with a band that will allow the sleeve to be drawn above the elbow. A button can be sewed to this band, so that it can be buttoned into a small band sewed into the armhole on the shoulder. This little shoulder band is not unsightly, and does away with the liability of tearing the sleeves with safety-pins and of wrinkling the sleeves by rolling them. It also prevents the annoyance of having the sleeve come down just when your hands are in the dough.

Our sample dress has a plain waist, with a large tuck extending from the shoulder seam. The collar and skirt are attached to the waist, which should be made large enough for comfort. The collar, waist, and placket of the skirt button down the back, thus dispensing with pins, which are liable to be misplaced and to tear the garment. This dress can be put on quickly, and it recommends itself to every sensible woman. An apron must be worn to cover the front of the dress, or it will soon be soiled. In



the illustrations used in this article we have a very convenient work apron. It is a gored, fitted apron, to make less fullness over the abdomen. This particular apron is made of linen, which has several advantages: it is easily washed, does not hold dirty spots like many other close-woven materials, it requires no starch, is easily ironed, and lasts a long time, looking nice till the very last.

The work apron should have a bib; and if straps are attached, they should be crossed in the back, to prevent falling

off the shoulders when at work. Pockets are provided on the sides for a handkerchief, and are large enough for a small memorandum-book, in which may be jotted down items to be remembered or orders for foods. A smaller pocket is provided inside the large pocket for pencil and keys, so they can be always at hand.

Still another addition to this apron are two holders, which are fastened to straps made of the same material, in the end of which is a buttonhole to be buttoned to the under side of the band near the hip. If you go to the stove to look at something cooking, you do not need to return to the table or rack for a towel: to lift the hot dish or kettle, the holders can be taken from under the sides of your apron, without waste of time or energy. It is a bad habit to use dish-towels about the stove for handling hot pans and kettles. They become burned, blackened, and soiled so that they are unfit to wipe dishes with. If holders

are not used, an oven cloth should be made of some washable material, and kept for that purpose. With holders like the apron, there is this advantage; you have clean holders each time you have a clean apron. If made of white, you can see when they are dirty. These holders, fastened to the apron, also prevent the use of the lower corners of the apron for holding hot articles.

A cap, large enough to cover the hair, should be worn in the kitchen, especially if the hair is apt to fall out. Untidy,

ill-kept hair is unhygienic at any time, but especially in the kitchen. There is nothing more disgusting than finding hair in the food. If those doing the cooking were more particular with their hair and scalp, hair need never be found in the food.

A neat work dress makes it possible for the wearer to appear at the door, out in the yard, or with a jacket on, even in the street, without the necessity of changing her dress; and such a garment is not out of place at the table during the working hours of the day.

The Conquest of Malaria

IT has been proved that malaria is carried from person to person by the bite of the female of a particular species of mosquito—the anopheles,—and that it is conveyed in practically no other way. Our measures are directed principally to the destruction of this species of mosquito,—the anopheles,—and that itself by laying its eggs, about one hundred at a laying, on the surface of fresh water. The eggs float around until they are hatched by the heat of the sun. The young live a larval and pupal stage of about eight days in the water, at the end of which time they have developed into full-grown mosquitoes.

This mosquito seeks clean, fresh water in which grass and algæ are abundant. As soon as the eggs hatch, the larvæ flee to the grass and algæ for protection from small fish and other natural enemies. The adult anopheles is weak in flight, and does not habitually move about.

We place one hundred yards as practically its ordinary flight. The adult is rather afraid of wind, and seeks undergrowth, grass, and plants near the ground, for its protection.

The anopheles, then, requires clean, fresh water in which is plenty of grass and algæ for the development of its larvæ, and when grown, does not fly farther than one hundred yards. It also needs brush and grass for its protection against the wind. Our measures for destruction are based on his two peculiarities. We destroy all the breeding-places within one hundred yards of the locality we desire to protect, so that the mosquito can find no water in which to lay her eggs, or where her larvæ can develop. At the same time we clear off the brush within the same area, so that the adult can not find protection from the wind.—*W. C. Gorgas, M. D., President's Address, American Medical Association.*





Cereals

George E. Cornforth

CEREALS compose the bulk of the world's food. They are nutritious and economical, and when carefully cooked and properly eaten, are easily digested. They deserve more consideration than they have been given by the American people. We believe that better health, clearer minds, and greater endurance would be the rule if less meat were eaten and a larger part of the nourishment was obtained from the cereals. We do not mean by this that "mush and milk" should be substituted for meat. Many have tried that with disastrous results. Cereals prepared in a drier form, as they are in bread, toast, and the prepared flake foods, compel more thorough mastication, and therefore are better digested by most people. Bread has been called "the staff of life," and it would be if people would give it a chance, but many eat as though meat were the staff of life. If, however, the mushes were eaten in such a way as to properly mix the saliva with them, no doubt less trouble would be experienced from their use.

Following is a table showing the chemical composition and food value of cereals, based upon Bulletin No. 28 (revised edition), Office of Experiment Stations, United States Department of Agriculture:—

	Water per cent	Proteid per cent	Fat per cent	Carbohydrate per cent	Cellulose per cent	Mineral per cent	Cal. per oz.
Cracked wheat	10.1	11.1	1.7	75.5	1.7	1.6	104.9
Oatmeal	7.3	16.1	7.2	67.5	.9	1.9	115.9
Pearled barley	11.5	8.5	1.1	77.8	.3	1.1	103.0
Rice	12.3	8.0	.3	79.0	.2	.4	101.3
Unbolted corn-meal	11.6	8.4	4.7	74.0	.0	1.3	107.9
Macaroni	10.3	13.4	.9	74.1	.0	1.3	103.8

From this table it will be seen that the composition of the different cereals does not vary a great deal, being approximately:—

Water, 10 to 12 per cent; proteids, 10 to 12 per cent; carbohydrates, 65 to 75 per cent; fat, $\frac{1}{2}$ to 8 per cent; mineral matter, 1 to 2 per cent.

It will also be seen that the food value of cereals is, in round numbers, one hundred calories to the ounce.

For the purpose of comparison we will give the following table also:—

	Water per cent	Proteid per cent	Fat per cent	Carbohydrate per cent	Cellulose per cent	Mineral per cent	Cal. per oz.
Lean beef	73.6	22.6	2.8	.0	.0	1.3	33.6
Beans	12.6	22.5	1.8	59.6	1.4	3.5	100.0
Walnuts	2.5	16.6	63.4	16.1	2.6	1.4	205.3

It will be seen that the total nutritive value of cereals is about three times that of lean beef, about the same as beans, and about one half that of nuts.

By the use of some figures given in the lesson in the August number of LIFE AND HEALTH we can reduce the percentage values to calorific values, so that we can see how many of the total one hundred calories in cereals are proteid, how

many are fat, and how many are carbohydrate.

	Proteid	Fat	Carbohydrate	Total
Cracked wheat	12.8	4.5	87.6	104.9
Oatmeal	18.6	19.0	78.3	115.9
Pearled barley	9.9	2.9	90.2	103.0
Rice	8.9	.8	91.6	101.3
Unbolted corn-meal	9.7	12.4	85.8	107.9
Macaroni	15.5	2.4	85.9	103.8
Lean beef	26.2	7.4	.0	33.6
Beans	26.1	4.8	69.1	100.0
Walnuts	19.3	167.3	18.7	205.3

This shows that beans contain practically as much of the proteid element as beef. Peas and lentils contain more of that element than beef contains; and besides this they contain a large amount of carbohydrate, which beef does not contain at all.¹

In the lesson previously referred to the statement was also made that of the total number of calories eaten in a day ten per cent should be proteid and twenty-five per cent to thirty per cent should be fat.

It will be seen by noting the table that wheat, oats, and macaroni contain more than ten per cent proteid, and that they contain therefore more than the proportion of proteid that the body requires; and the other cereals contain very nearly enough. And just as the carbohydrate element should predominate in our food, so it predominates in the cereals. But it will be seen that the cereals are deficient in fats. This is supplied by the butter which we eat with our bread, and the cream with our grains. But when we add the butter and cream to the grains, that brings the percentage of the proteid in the combination of the two down to less than ten per cent. There-

fore we need to add food containing an excess of proteid, such as the legumes, some nuts, milk, eggs, cottage cheese.

It will also be noted that those cereals which grow in cold climates where more fat is needed in the diet contain most fat, while those which grow in tropical climates contain less fat; also that those cereals which require longest cooking grow in cold climates where more fire is needed, while the cereal which requires the shortest cooking grows in tropical climates where little fire is needed.

Following are some rules for the proportion of water and grain in the cooking of grains in the form of mush:—

Oatmeal, and all wheat preparations except rolled wheat and Graham flour, require four measures of water to one of cereal.

Rolled wheat and rolled oats require two measures of water to one of cereal. Graham flour varies according to the quality of the flour, requiring sometimes two measures of water to one of flour, sometimes three to one.

Corn preparations (corn-meal, hominy, etc.) and barley require five measures of water to one of cereal.

Rice, when cooked in a double boiler, requires three measures of water to one of rice. Browned rice requires two measures of water to one of rice.

The time required for cooking grains is as follows:—

Rice, the grain which cooks and digests most easily, requires one hour.

Fine wheat preparations, such as cream of wheat, farina, wheatena, etc., require one hour.

Corn-meal requires two hours; coarse hominy, from five to six hours; rolled wheat, from four to five hours; rolled oats, from four to five hours; oatmeal, from four to six hours; cracked wheat, five to six hours; hulled wheat, five to six hours; pearled barley, five to six hours.

¹ A more accurate way to compare these foods would be to compare dried beans with dried beef; or if fresh beef, containing a large part of water, is used, it should be compared with cooked beans after they have absorbed an equivalent amount of water. Such a comparison would give a very different result.—Ed.

If the grains are cooked the afternoon before and warmed up in the morning, more water will be required for some grains. Fine wheat preparations and corn-meal will require six measures of water to one of meal. Use one round teaspoonful of salt to one and one-half quarts of water. In order to cook grains as long as they should be cooked to be well cooked, it is necessary, of course, to use a double boiler. The following directions should be followed in the cooking of grains:—

Measure the water and the grain. Add salt to the water and bring the water to the boiling-point in the inner cup of the double boiler. Then sprinkle the grain slowly into the boiling water, stirring with a batter-whip, and continue to stir till the grain fills the water and does not settle. Set the inner cup in the outer cup of the double boiler, which should have boiling water in it. Keep the water boiling for the length of time required to cook the grain, adding more boiling water to the outer boiler if necessary. The formation of a tough skin on the top of the grain in the kettle may be prevented by covering the top of the grain with hot water after a slight skin has formed. This water is poured off after the cooking is completed. It seems better not to *boil* rolled oats and rolled wheat. That breaks up the flakes, and makes a more mushy, pasty mass. Have the water in the inner cup of the double boiler boiling hot, and have the two parts of the double boiler together. Introduce the flakes into the water carefully, so as not to break the flakes, and allow it to cook without further stirring.

The cereals being deficient in fat, this deficiency may be partly supplied by cooking them in milk. Rice, hominy, and farina are especially nice this way.

“Creamy rice” may be made by cooking in a double boiler, from two to three hours, one measure of rice in six meas-

ures of milk, with one teaspoonful of salt to one and one-half quarts of milk.

To aid in the proper mastication of cereals it is well to eat some hard food, such as zwieback or crackers, with them, or coarsely chopped nuts may be sprinkled over the top of the dish of mush. A combination which is enjoyed by some is made by sprinkling some ready prepared granular cereal food, such as granola, granuto, Dixie kernel, or malted fruit-nuts over the top of a dish of mush, and then eating it with cream. It is better not to give way to the temptation to eat sugar on grains. We are very apt to eat too much sugar, and one will not tire of grains as quickly if the sugar is omitted, and after the habit is once broken, one would hardly think of eating sugar on grains any more than on potatoes or bread and butter. Using sugar on grains is like always eating cake instead of bread.¹ Perhaps the trouble experienced by some people in using grains in the form of mush has been largely due to the sugar which has been eaten with them. Good rich cream is a sufficient dressing, or even milk in the absence of cream, or fruit may be used for a change, or fruit juice thickened with a little corn-starch, or a fig sauce may be used, which is merely a thin fig marmalade heated. Date and raisin sauce may be made in the same manner. Raisins, seeded dates, chopped figs, or fresh berries, may be stirred into mush a short time before it is served. Grains left from breakfast make a good supper dish eaten cold with cream or a fruit dressing. To be used in this way, the mush may be poured into cups wet with cold water to form into individual molds. It is turned out after it becomes cold. Another paper will follow with specific directions for the preparation of each kind of grain.

¹ It should be remembered that the presence of a considerable amount of sugar actually retards the digestion of starch.—Ed.

RATIONAL TREATMENT IN THE HOME

Treatment of Pneumonia¹

H. F. Rand, M. D., Superintendent St. Helena Sanitarium, Sanitarium, Cal.

PNEUMONIA is an infectious disease caused by the pneumococcus; but as this germ is found in many healthy mouths, and produces the disease only when there is properly prepared "soil," that is, when the vitality of the tissues is somewhat lowered, many do not recognize that it may be contagious,² and no proper precautions are taken with pneumonia patients.

When it is realized that pneumonia causes in some localities more deaths than any other disease, not even excepting tuberculosis, the importance of preventive measures will be readily understood.

But often there is not the least attempt to prevent its spread. One member of the family having the disease, is often moved about from room to room without any attempt at disinfection of room, clothing, or excretions. It is no wonder that the disease then spreads to other susceptible members of the family.

A most important factor therefore in the prevention of pneumonia, is education of the people as to the infectiousness of the disease and the importance of thorough preventive measures.

¹ Read before the Medical Council at the Seventh-day Adventist General Conference, Takoma Park, Md., June, 1909.

² The word is used in its popular signification, as being more intelligible; "communicable" is a more exact word.

The mouth of the patient should be washed when there is a pasty, sticky feeling. The tonsils and nasal cavities should also receive attention with a mild cleansing and antiseptic solution.

The patient should have a well-ventilated room with an even temperature, the air preferably somewhat moist, and no drafts. It is well to have a large fire-place and many open windows. To take the patient out-of-doors is even better, if this is practicable. Dry heat aggravates the trouble. If the temperature is cool, the air not too dry, and the patient well protected, there will be a marked reduction in the temperature, respiration, and pulse.

The common method of treatment is to have the patient in a room with all air shut out, and make him eat the most indigestible foods, allowing but little water, and giving whisky, or some other form of opiate, for pain. But according to modern experience, open air is to be recommended above all else; also thorough cleansing of the alimentary tract, and a diet consisting of very light, easily digested food. Kumiss is recommended quite highly; also barley-water and other broths of the grains, and fruit juices.

Hydrotherapeutic measures, such as cold sponges, and tepid and cold bathing, with cold compresses to the chest, are most valuable; but it must be borne in

mind that pneumonia is usually in the lower lobes of the lungs, and is reached best from the sides and back of the chest.

In every home it should be known that suffering can be relieved and life saved by furnishing an abundance of fresh air, and having the patient's alimentary tract thoroughly cleansed. Put heat to the extremities, and cold around the back and sides of the chest where the inflammation is; cleanse the nose cavities and the mouth, and destroy or disinfect the excretions and the sputum.

The patient should be isolated from other members of the family. The enemas should be given warm, to draw the blood into the portal circulation. Follow this with a leg pack — if necessary, have it come to the hips. Then apply cold around the back and sides of the chest by doubling a large Turkish towel lengthwise, and placing cracked ice between the folds. This will usually hold the skin at about sixty degrees. This ice compress can be left on for twenty or thirty minutes. The underlying skin should then be rubbed with the hand about half a minute, or until it becomes warm, and the ice compress reapplied as evenly as possible. A little tincture of benzoin sprayed in the air is a great aid to the patient in breathing.

As to the diet: The first two days pure water should be taken very freely, and after that barley-water or other grain waters and fruit juices may be given. Pea and bean broths are acceptable to some patients, and kumiss is excellent, especially that made by the lactic-acid germs.

A sanitarium physician detailed to take charge of some pneumonia patients in a small town, was taken to the home where one daughter had just passed away with the disease, and the father and mother were stricken with it. He was met by several physicians, who told him of the desperate

struggle they had had in the city, and of the number of deaths that had occurred, and that the disease seemed to be of the most malignant type. They had been giving quinin and whisky, allowing very little water to be taken, and had given morphin to quiet pain. The daughter had been kept in a large room, all air had been excluded, and the clothing had not been changed, nor had water been applied to her body.

The mother, who occupied a room on the same floor as had the daughter, with everything closed tight, was delirious. Her temperature was about 106°; her respiration over 80, and pulse about 150. The father was in another room, not in quite so serious a condition.

Windows and doors were opened to thoroughly ventilate the house; then warm enemas and packs were given, as described above. In two hours the mother was rational, and her temperature was reduced three degrees; her respiration was reduced one half, and her pulse to 100.

There were a number of cases, and all who were treated by this method made a successful recovery.

A young man who worked in the Turkish baths in Denver was brought in about seven o'clock in the evening, it having been discovered about nine o'clock in the morning that he was having great difficulty in breathing. His respiration was 76; his pulse 150; and he was becoming blue, as he was using only a part of his chest. Several physicians and medical students saw him. The physicians pronounced it double pneumonia, and said it was a hopeless case, and that with oxygen to inhale, he would probably live only for two or three hours.

Procedure was at once instituted as described above. After one hour, the cyanosis had left, and the respiration had dropped to 50, and the pulse to 100. The

treatment was continued faithfully, and when the students came next evening, supposing that the patient had passed away, they were surprised to see him improved. They said that in serious cases just before the close, there was often a little reviving spell; but when they saw him completely restored, they wondered, and said it certainly was a miracle. He proceeded home next day. Now this case was congestion, and not pneumonia.

In a high altitude more difficulty is

experienced in treating these cases than at the sea-level. But the same treatments work in both places. I would state, in closing, that with these cases it should be remembered to treat the lower lobes of the lungs. Of course it makes no difference what the form of the disease is, the treatment in hydrotherapy is the same in all cases, and if applied properly, definite results are always realized. As to medication, the most experienced physicians now admit that drugs can do but little.

The Pineapple Industry

(Concluded from page 662)

they reach a high state of perfection.

After it had been demonstrated that Hawaii could grow better and larger pineapples than could be grown even in greenhouses in England, and in other countries from which the supply was coming, the problem of marketing the fruit had to be solved by the Hawaiian growers. They were too far from a large market to make it practicable to ship ripe pineapples, and they knew that they could have no lasting success by shipping fruit picked before it was ripe. They knew, as all of us know, that there is no fruit, with the possible exception of pears, which is anywhere near so nice and juicy when picked green, and possibly they knew, too, that the food qualities of fruit ripened under natural conditions are much greater. Anyway, they wanted to place Hawaiian grown pineapples before the American people in the highest state of perfection possible, and under the most favorable conditions, and there was only one way to do that — can them.

At first thought, one would say that canning them would remove them a long way from "the most favorable conditions;" but wait. The fruit is picked when it is thoroughly ripe, and from the time it is delivered to the "canneries" is not touched by human hands. It is pared by machinery (and this is a delicate operation on a thoroughly ripened fruit), is sliced and cored, and placed in specially made sanitary cans. A sirup of pure granulated sugar is poured over it, and the can is hermetically sealed by a machine process, without the use of acid or solder. This is all done so quickly that it might be said that the fruit is picked and canned the same day, and so is perfectly fresh when sealed up. After every precaution has thus been taken to keep the fruit in its natural state, it is sterilized in a bath of live steam, and is then ready for the market. When the can is later opened in your own home, you have a breath of Hawaii, and the most delicious and healthful pineapple you have ever eaten.



Hereditary Influence of Overeating

THE typical arthritic, according to Pascault, is rarely developed in single generation; he is generally the product of several generations of bad dietetic habits. The ancestor of the arthritic—a grandfather, perhaps, or some more remote relative in direct line—was strong, vigorous, active, and generally endowed with the qualities that insure success in life; a great worker, either physically or mentally; he died in old age, after a useful life, leaving a numerous progeny.

As in the case of other well-balanced individuals, the intake of food is usually proportioned to the daily expenditure of energy. We must conclude *a priori* that this hearty and vigorous ancestor was also a great eater; and from that fact we may note certain consequences, among which, according to Pascault, are the following: His digestive apparatus, put to work upon a bountiful food supply, becomes developed in all its constituent parts, his stomach acquires the habit of no longer feeling satisfied until it has reached the maximum distension, and all the tissues are obliged to accelerate their metabolic processes in order to utilize it, and thus lose the habit of functioning economically; hence the recurring need, which, transmitted to the nerves of sense and perceived by the consciousness, translates itself into an exaggeration of the appetite, inducing him to eat more than is really necessary for him.

This is not all; for while the carbohydrates of the foods thus unwisely taken, are easy of combustion and leave in the

economy after their destruction only liquid and gaseous products easy of elimination, it is not the same in the case of nitrogenized foods, which are broken up with difficulty and require of the liver and kidneys a very complicated work before their waste products are thrown out.

In the case of this particular ancestor, he has had not only muscular or cerebral activity, but all his organs, all his tissues, all his cells, without exception, functionate with abnormal activity. No machine can endure being constantly overdriven, no matter how well it may be constructed; it becomes fatigued and worn-out in the long run; and so in the case of the particular type of human machine under consideration, we may say that the exuberance of health and activity which characterize the pre-arthritic ancestor was the real promoter of the morbid troubles from which his descendants suffer.

The representatives of the second generation are handicapped by an inheritance which, if uncorrected, will cause them to develop into true arthritics. They have, in spite of the robust appearance, inherited diminished vigor, and an exaggeration of appetite which they do not recognize, or which on the other hand they may regard as a virtue of health rather than an abnormality, and above all they have inherited a cellular impress characterized by the rapidity of metabolic activity. . . .

The incessant effort demanded of the stomach, the intestines, and the large

glands, the liver and pancreas, concerned in the disposition of this excess of food involves a corresponding excitement of the vascular system, and the induction, sooner or later, of a passive, even permanent congestion of the digestive viscera, leading to plethora, and later to obesity as middle life is reached, or even earlier.

Thus the arthritic transforms his excess of carbohydrate food into fat; or he may expel through the urine the sugars which have not found a place in his muscles or in his liver, developing thus a glycosuria or diabetes; or he may accumulate his residual proteids at other

points of his economy or in other tissues where the circulation is sluggish, as in the articular tissues, developing gout, or he may eliminate them through the mucous tissues, producing catarrh.

To these results must be added all other morbid manifestations of the disordered overnutrition grouped under the general term lithiasis—that is to say, gravel and stone in the bladder, kidneys, liver, together with their corollaries, cystitis, and hepatic and nephritic colic.—*Edward C. Kirk, D. D. S., Sc. D. (Editor Dental Cosmos), read before National Dental Association, Birmingham, Ala., March, 1909.*

Individual Drinking Cups

A NEW, clean cup with each drink of water! The idea itself is striking enough to set people thinking who daily go thirsty about the streets rather than drink from public cups. But the idea is more than an idea—it has assumed the form of a pretty little machine of porcelain and nickel, which delivers you a stanch paraffined paper cup filled to the brim with ice-cooled spring-water.

The reason cleanly men and women have continued to go on so long drinking after one another is due to the simple fact that they have been unable to get individual cups. Diseases, such as la grippe, "go through families," as we say, and epidemics go through communities, and yet we wonder why. As a matter of fact, many people, apparently healthy, but who have been sick several months before, carry the germs of an old disease in their mouths. A few months ago an epidemic of diphtheria occurred among twenty-four persons in Rochester. Dr. Forbes, of that city, made an investigation, and traced each case unmistakably

to a common drinking cup which all the sick had used.

The crying need of individual drinking cups caused a young man of Boston to search for some economical method of delivering a new cup with each drink. His device, like other successful inventions, is simple. There is an upright tube containing one hundred thirty-five paraffined paper cups nested closely together, and at the bottom of this stack an arrangement for filling the cups with water. The drinker has only to turn a small lever from left to right, and the filled cup drops into view. In places where the general public will use the fountains, a simple slot device, suitable for a penny, is attached. The cups, if put to a test, will hold water for several hours; they are so inexpensive, however,—the cost is but a fraction of a cent,—that the drinker either carries his cup away or throws it in a basin provided below.

Several months ago the machine was taken to the New York health authori-

ties, who at once indorsed its universal use for the municipal hospitals and the schools. New York City has managed to reduce its yearly death-rate, through sanitary regulations which have inspired the commendation of the world, from twenty-five per thousand to eighteen. But the public cup had been a cause for the spread of disease. Hence the quick acceptance of the new invention.

The public at last seems to be awakening to the demands made in behalf of health to abolish the common cup. School boards are seeking to do away with the tin cup and chain. A test recently made by Dr Davison, of Lafayette College, has caused school authorities to sit up and take notice. Dr. Davison found that a cup which had been

in use in a public school for nine days was so completely covered with human cells scraped from the lips of drinkers that a pin-point could not be placed anywhere without touching several bits of skin. The Lackawanna, Norfolk, and Western, the Boston and Maine, and several other railroads, alert to the best methods of protecting the health of their patrons, have installed individual cup venders in their coaches. The managers of railroads as well as department stores and theaters, have responded to the call for an alternative for the common cup. Two large magazines have entered the campaign, and a long-overlooked nuisance may soon be abolished.

The individual drinking cup must come.—*Journal of the Outdoor Life.*

The Young Mother and the Fat Hog

ONE time a little mother, who was only twenty-five years old, began to feel tired all the time. Her appetite had failed her for weeks before the tired feeling came. Her three little girls, once a joy in her life, now became a burden to her. It was, "Mama," "Mama," all day long. She never had noticed these appeals until the tired feeling came. The little mother also had red spots on her cheeks, and a slight dry cough. One day, when dragging herself around, forcing her weary body to work, she felt a sharp but slight pain in her chest, her head grew dizzy, and suddenly her mouth filled with blood. The hemorrhage was not severe, but it left her very weak. The doctor she had consulted for her cough and tired feeling prescribed biters made of alcohol, water, and gentian. This gave her false strength for a while, for it checked out her little reserve. When the hemorrhage occurred, she and

all her neighbors knew she had consumption, and the doctor should have known it and told her months before.

Now she wrote to the State board of health and said: "I am told that consumption in its early stages can be cured by outdoor life, continued rest, and plenty of plain, good food. I do not want to die. I want to live and raise my children to make them good citizens. Where can I go to get well?"

The reply was: "The great Christian State of Indiana has not yet risen to the *mighty economy* of saving the lives of little mothers from consumption. At present, the only place where you can go is a grave. However, the State will care for your children in an orphan asylum after you are dead, and then in a few years a special officer will be paid to find a home for them. But save your life—'Never! That is a cranky idea,' for a member of the floor of the sixty-

fifth Assembly said so. 'Besides,' said he, 'it isn't business; the State can't afford it.'

So the little mother died of the preventable and curable disease, the home was broken up, and the children were taken to the orphan asylum.

A big fat hog one morning found he had a pain in his stomach. He squealed loudly, and the farmer came out of his house to see what was the matter. "He's got the hog cholery," said the hired man. So the farmer telegraphed Secretary Wilson of the United States Agricultural Department (who said, the other day, he had three thousand experts in animal and plant diseases), and

the reply was: "I'll send you a man right away." Sure enough the man came. He said he was a D. V. S., and he was, too. He had a government syringe and a bottle of government medicine in his hand-bag, and he went for the hog. It got well. It wasn't cranky for the government to do this, and it could afford the expense, for the hog could be turned into ham, sausage, lard, and bacon.

Anybody, even a fool, can see it would be cranky for the State to save the life of a little mother, and it could not afford it either.

MORAL: Be a hog, and be worth saving.—*Clipped.*

Food Intoxications in Childhood

EATING too much food of all kinds usually causes such attacks as are described by the laity as biliousness. The attacks recur with greater or less frequency, and are characterized by fever, a coated tongue, foul breath, headache, malaise, often drowsiness; there is often vomiting or diarrhea, or both, and the liver may be somewhat enlarged and tender. A brisk purge and limitation of the diet usually are all that is needed.

Too much fat is a frequent cause of trouble, and many children are often intentionally overfed with fat. These are cases of malnutrition in which large quantities of butter, cream, cod-liver oil, and other fats are given with the idea of fattening the child and restoring its normal condition. The result is that the nutrition is not improved, but is usually made worse. The child is unwell; has a pale, muddy skin, and large dark circles under the eyes; one of the most striking features is a coated tongue and exceedingly fetid breath. There is gastric disturbance, and vomiting is frequent, and

there is often diarrhea, with the passage of undigested fat in the stools.

The carbohydrate cases are the commonest of all, owing to the fact that a great many children are given large quantities of starches and sugars, not only at their meals, but between meals, in the shape of sweets of various kinds, often of the cheaper varieties of candies. Many children have a very low capacity for utilizing sugar, and some for both sugar and starches. As in the other forms, the periodicity of the attacks is the most striking feature. Perhaps the commonest form of the attack is recurrent vomiting, although this may be seen in cases in which protein metabolism is at fault. In some instances the attack consists merely of fever, or a sick-headache, while in other cases there are attacks of asthma, which sometimes follow indiscretions in diet. The most difficult cases to manage are those in which there is a combination, an inability to utilize normal quantities of protein and carbohydrate, as it is difficult to arrange the

diet satisfactorily. The results in preventing the attacks are remarkable if the co-operation of the family can be secured.

Having found out the food factor at fault, an effort should be made to determine about what quantity of that particular food can be utilized, then to keep the child on a diet well within the limits of its powers of assimilation. In addition to this it is exceedingly important to see that the bowels are regular,

and a rather good plan is to use some fairly active purge at least once a week. Outdoor life and plenty of exercise are exceedingly important, and many patients are greatly benefited by a sojourn in the country, not at a summer resort, but on a farm, where a very active outdoor life may be led without too much restriction in the matter of observing social forms.—*John Rührhah, M. D., in the Journal of the American Medical Association.*

Costly Silence

THE public has never appreciated the real gravity of the venereal peril, and does not appreciate it to-day. Physicians themselves have only begun to appreciate it. The truth of the matter is that both by the laity and by the profession the whole matter has been treated as a joke. We do not crack jokes about cholera, or yellow fever, or plague. The survivors of Messina, as they sat among their ruined homes, found nothing to joke about in that awful catastrophe; yet grown men are perfectly willing to crack jokes about a subject which involves the future of the race. They are satisfied with the most futile precautions against diseases whose ravages far exceed that of all the plagues in the world. We joke with death, but our children and our children's children pay the price. Is blindness a joke? Is permanent sterility a joke? Is the chronic and incurable invalidism which overtakes many a fair bride a joke? Are mutilating and disabling operations jokes? Is it a joke to bemire the very fountain of life, and turn a sparkling fountain into a sullen and seething mud-hole whence shall issue all sorts of creeping and crawling deformities, and misshapen things of disease and woe?

What is the medical profession doing to prevent these crimes?—Nothing.

What is the legislature doing?—Nothing.

What are the courts doing?—Nothing.

What are the educational institutions doing?—Nothing.

To take up the last question first, the essential facts of sexual life are entirely neglected in both home and school training. Mystery shrouds the subject from the time the child asks the first question regarding its origin until the day when its curiosity is satisfied in a corner by whispering playmates. We begin wrong. Mystery is like the night. In its dark shadows lurks all manner of evil. In our homes proper answers are rarely given to questions to which the children will continue to seek an answer. Usually they get the knowledge clandestinely, and that which was the mystery of their childhood becomes a thing of darkness in the ignorance of their youth.

Parents shun responsibility in this matter. Not long ago a well-meaning and well-conducted journal for women endeavored to arouse its readers on this question of information on sex questions. The articles were timely, modest, and

informing. The journal was undertaking a necessary and most needful task in a perfectly proper way.

Its course, however, created much criticism. It appeared that many of its subscribers, mothers, were perfectly willing to let their children pick up the same information on the streets in a prurient way, but their delicate sensibilities were shocked that Maria and Jennie should be frankly and openly told the facts concerning the fountain of life. Their knowledge on these subjects, these

poor women thought, should be gained clandestinely. Our educational institutions preserve the same reserve. When does a ship need the gleam of the lighthouse?—When it is approaching the rocks. When does a child need instruction and warning on sexual matters?—When it is approaching puberty! [This, alas! is often too late.—ED.] Does it get either instruction or warning from its parents?—Rarely.—*Editorial, New York State Journal of Medicine.*

Education at the Expense of Health

THE question is constantly staring us in the face, whether great and permanent injury to our children is not being done in the public schools. Certainly all the experimental work that has so far been carried out goes to prove that our schools are needlessly expensive, and in many cases do irreparable damage to the health of our children.

Those who have attended school for half time, or who have not begun school life until eight or nine years of age, have so frequently surpassed those beginning much earlier and spending more hours in the schoolroom, that we may well pause and inquire whether the seeds of most of the nervous breakdowns in our

feeble young Americans are not sown in the early years of school life; and whether our methods of public instruction for the young are not unduly extravagant and wasteful, not alone because we try to teach them the "forty frills" as well as the "three R's," but because we insist on their beginning school at least two years too early, when they should be playing in the fields; and whether by our tedious school hours, ill-ventilated rooms, superheated and steam-dried air, we do not cause much of the bronchitis and pneumonia, not to mention the contagious diseases, which we pay the medical inspectors to detect.—*Richard Cole Newton, M. D., in Medical Record.*





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.

“Alcohol Prepares the Bed for Tuberculosis”

LONG before the discovery of the tuberculosis germ, physicians had expressed the opinion that alcoholism was one of the chief causes of tuberculosis.

The idea has since gained ground that in infectious diseases, a very important part is played not only by specific germs, but also by a number of factors included under the term “predisposition.”

The organism has at its disposal several means of defense capable of hindering the invasion of disease germs. The smaller the number and efficiency of these protectors at the time of exposure, the more easily the disease is contracted.

Experiments have shown that one can so diminish the natural resistance of animals by the administration of poisons that they become infected much more easily by disease germs. Observations show that the results obtained from animal experiment hold good for the human organism.

From these findings, as well as from the scientifically established fact that alcohol is a body poison, we conclude that the use of alcohol makes the body more susceptible to tuberculosis.

Evidence Rather Than Inference

Among the patients received in hospitals for tuberculosis, there is a much higher percentage of alcoholics than of

non-alcoholics. Those engaged in the liquor traffic are more frequently attacked by tuberculosis than others.

The experience of many countries having a high consumption of alcoholic liquors teaches the same lesson. Those departments in France which have the highest consumption of alcohol have also the highest death-rate from tuberculosis. In Normandy and Brittany tuberculosis did not begin to spread until after the consumption of alcohol increased. Among the Negroes, tuberculosis increases with drunkenness; the Chinese, who use little alcohol and otherwise live not very hygienically, have less tuberculosis than Europeans. The Jews are shown to have a lower tuberculosis rate than those who drink less moderately.

We have also the results of exact experiments upon animals to show the direct influence of alcohol upon the origin of tuberculosis. Professor Laitinen studied the influence of large and small quantities of alcohol on tuberculosis infection. The amounts he used in his earlier experiments correspond to the daily use by man of one and one-half quarts of beer. The animals either received a definite quantity daily for a long time, and were then compared as to their susceptibility to infection with

the bacilli of tuberculosis with other animals which had received no alcohol, or they were first infected with the bacilli of tuberculosis, and then a part of the infected animals were given alcohol daily, while the others received none. The animals which received no alcohol either lived longer than the alcoholized animals, or, if the amount injected was very small, only a few [of the animals which received no alcohol] died, while of the animals which had received alcohol either all or a large part of those infected with tuberculosis succumbed to the disease.

Laitinen studied further the influence of doses of alcohol corresponding to about a tumblerful of Finnish beer for man, upon the resistance of the progeny of alcoholized animals. He found that 36.76 per cent of their young were either born dead or died soon after birth, while of the progeny of the non-alcoholized only 21.74 per cent were born dead.

Guinea-pigs that received alcohol and were afterward infected with tuberculosis lived from sixty-three to seventy-six days, while those that had not received alcohol lived on an average one hundred seventy-four days.

In harmony with these results very small amounts of alcohol considerably increase the susceptibility to infection by cholera, splenic fever, hydrophobia, tetanus, diphtheria, etc.

If alcohol increases the predisposition to various infectious diseases, it would be strange if it did not act similarly in the case of tuberculosis.

Alcohol not only predisposes to tuberculosis, but it also influences unfavorably the course of the disease. This conclusion is sustained, first, by experiments in which animals infected with tuberculosis and then given alcohol

for a long time die sooner from tuberculosis than the controls [animals infected with tuberculosis and not given alcohol]; and, second, by the numerous clinical observations on men, showing that tuberculosis in drinkers runs a swifter course than in abstainers.

We have so far considered only the direct influence of alcohol upon the origin and course of tuberculosis. Of no small importance, however, is the indirect influence comprised in the social evils which are brought about through the use of alcohol.

The cost of drink cuts down the amount to be spent for food, dwellings, and clothing, which is particularly important in the case of poor people, not only for the drinker himself, but also for his family. These conditions favor the spread of tuberculosis.

The conclusions that may be drawn from our consideration of the influence of alcohol upon tuberculosis are:—

1. That in order to resist tuberculosis successfully, it is necessary to oppose the prevailing drinking customs, and in this, abstinence is decidedly preferable to mere moderation.

2. It is the duty of physicians and all officials charged with the care of the public health to fulfil the above-named conditions, and to support them by their own personal example.

3. Alcohol as a relish should be banished from all institutions in which tuberculosis patients are treated or cared for, and its use as a medicine reduced to the minimum. The same requirement should also hold in the treatment of other patients and inmates of public institutions.—*Anton Weichselbaum, Professor of Pathological Anatomy, University of Vienna, Translated for the School Physiology Journal.*

Chronic Bronchitis

PATIENTS having a troublesome winter cough should, if possible, go to a warmer climate during the cold season. The more frequent the attacks and the longer they last, the more difficult to cure; hence the importance of preventing a prolonged winter cough.

The most frequent, though not the only, cause of recurrent coughs, is tuberculosis. The worst season is the windy, dusty, early spring, dust being an exciting cause of bronchitis, because of its irritant properties and because of the infectious germs it carries.

Though the cough and expectoration are the cause of greatest anxiety on the part of the patient, the greatest improvement will be obtained, not by the administration of cough remedies, but by building up the general health.

Opium and other sedatives are rarely needed in this form of bronchitis, though in some cases an expectorant, such as

eucalyptol, may be of some advantage. Some of the aromatic oils, inhaled, are often excellent.

Elevating the foot of the bed, little by little, until it is raised four or five inches, facilitates the discharge of secretion from the lungs.

All unnecessary coughing, such as is not accompanied by expectoration, should be avoided,—it can be by the exercise of will power,—as such coughing merely serves to irritate the air-passages and perpetuate the trouble.

Very often climate will do more for a bronchitis patient than anything else, but which climate must be determined for each individual case; one will do best on a sea voyage, another in New Mexico, another in the mountains.

Bronchitis patients should be taught the importance of breathing exercises.—*Forcheimer, in American Journal of the Medical Sciences.*

Hygiene of the Air-Passages

IT is natural, by coughing, cleaning the throat, or blowing the nose, to attempt to clear an obstructed air-passage. But usually obstruction is due to a narrowing of the passage by the congestion and swelling of its membrane, and can not be removed in this way. In order to resist an invading foe an extra supply of blood is summoned, and as a result, we have irritation, swelling, and increased secretion. These are in reality means of defense; for irritation sounds the alarm, swelling means the arrival of reinforcements, and secretion provides a dressing under which restoration takes place. To remove the secretion by a blast of air is to take away one of na-

ture's protections. It would not be good practise to remove frequently with a brush the fluid oozing from a sore place on the skin. Much better would it be to let the secretion remain as a protective.

When the throat is sore, coughing increases the irritation, and this again strengthens the impulse to cough. If violent coughing results in excessive expectoration, this does not necessarily justify the coughing, for the increased secretion may be due to ill-advised exertion. If the eye is sore, experience teaches us that we should, for the good of the eye, restrain the strong impulse to rub it. Clearing the throat may sometimes be advisable after prolonged use

of the voice, but it may easily become an obnoxious habit.

Blowing the nose, though sometimes necessary, should be avoided as much as possible. Of course it is necessary to remove the secretion that appears at the surface, and occasionally in acute cold in the head or hay fever, the annoyance may be extreme. But even then, it is well to keep in mind that the less the parts are irritated by strong blowing, the shorter the road to recovery.

When an acute cold is so severe that it is almost impossible to breathe through the nose, immediate relief may be obtained by making a forcible expiration, and then ceasing to breathe for a fraction of a minute. The nasal passage may be kept comparatively open by breathing with as little air as possible in the lungs.

To form the habit of blowing the nose is to convert an acute catarrh into a chronic stage.

Coughing is a violent method of clearing the air-passages, which may be modified by intelligent effort. When the

habit is fixed of coughing whenever there is a little irritation, it is difficult to overcome it. Where there is profuse secretion in the throat, it may be removed with much less effort if the head is thrown forward in such a manner as to take advantage of gravity in forcing the secretion out.

Sneezing may be prevented by pressing strongly with the finger on the upper lip. Another way is to empty the lungs by a forcible expiration just before the sneeze is expected. The sneeze is then accompanied by the usual sensation, but with very little noise.

To modify the action of the heart so that a weak pulse is changed to a full strong one, breathe out forcibly and cease to breathe by an effort of the will. As the demand for air becomes excessive, allow the air to enter the lungs in small quantities. This temporarily satisfies the air-hunger and prolongs the stimulating effect upon the heart and circulation.—*Adoniram B. Judson, M. D., in Medical Record, Aug. 14, 1909.*

The Nervous Child

THE nervous disposition may or may not be inherited, but there is no question as to the effect of highly strung, emotional, overanxious, fussy parents on a child during its tender years. Excessive emotion, which in adults leads to severe physical effects, is far more serious in children, because of their unstable nervous development.

Fear is the emotion most apt to cause permanent injury in a nervous child. It is the imaginative child that is most subject to fear. Most of the neurasthenia, hypochondria, and hysteria in adult life may be traced to the effect of fear in early life. The child who exhibits unnatural fear, will later be subject to nervous troubles.

Reflex irritation is an important cause of nervousness in the child. This again is due to the natural immaturity of the child's nervous organization. Removal of the irritation will often produce prompt results.

Gastrointestinal irritation, especially chronic intestinal absorption of poison, most frequently brings about this condition. In infancy death is frequent from acute intestinal poisoning. Later this trouble is less frequent, and the chronic form supervenes, accompanied by constipation and slow absorption of poisons from the retained fecal matter. There may be evacuations every day, but the stools are dry and crumbly. This is evidence that they have been in the intes-

tines longer than twenty-four hours, giving opportunity for formation and absorption of poisons.

Nervous children are usually thin, undersized, bloodless, with dark circles around the eyes. They are restless, continually on the move, and know no discipline. They insist on pulling books from shelves, and meet the efforts of doctor and parents with kicks and screams. The appetite is poor, and there are periodical attacks of pain in the "stomach," diarrhea, vomiting; and bed-wetting is frequent. Very often they must be coaxed to eat, and they frequently resent the least change of foods, and are particular regarding slight variations in dietary. Refusing wholesome foods, they sometimes crave pickles and the like.

The training of the child can not be begun too early. To indulge its whims is to bring disaster. Firmness should accompany kindness.

There should be regularity regarding the feeding hours, and these should be adhered to. Frequent feeding is wrong.

Some think that because the child eats so little, it should eat more often. This policy defeats itself, for the child's appetite grows more treacherous under the process. Under no condition should food or milk be given the child between meals.

Parents must themselves be self-controlled; as children learn more by imitation than in any other way. A good example should accompany all instruction.

Often it is necessary to remove the child from his ordinary surroundings. Sometimes the child that refuses all food at home will eat normally when in a new environment. Give abundance of fresh air, for several hours a day, in the open. If living in the city, take the child to the park or the country as often as possible. A cold sponge bath in the morning, so given as not to produce dread, will act as an excellent tonic.

—*Henry Larned Kieth Shaw, M. D., Clinical Professor of Diseases of Children in Albany Medical College, in Pediatrics.*



TWO SMILES

THE MEDICAL FORUM



The Benzoate Controversy

DR. WILEY, as a result of experimental work in connection with the poison squad, pronounced sodium benzoate injurious in continued small doses, and advocated its prohibition as a food preservative.

A referee board of chemists and scientists, appointed by President Roosevelt, conducted in their several laboratories experimental work, from which they learned that in small doses sodium benzoate is harmless to the healthy person.

Dr. Wiley contended that it was not giving the consumer the benefit of the doubt, to test a preservative on strong, healthy young men for a short time, and then assert on the strength of this that it is harmless for invalids, babes, and feeble persons. He also contended, with considerable grounds, that the benzoate enables manufacturers to utilize inferior and spoiled products which they could not use without a preservative.

The *Medical Examiner* comments as follows in its June issue:—

“Over the protests of Dr. H. W. Wiley, head of the Bureau of Chemistry, his superior, the Secretary of the Department of Agriculture, accepted the negative and utterly inconsequential report of the chemists of the referee board as final, the report simply being that after three months' careful administration of minute doses of benzoate of soda to a group of young athletes, and not having detected derangements of health, they concluded that there was none, and not only that there was none in such individuals as those examined, but that there would be none, whatever the state of health or age of the individual taking the germicide.

“And this was made the basis of the official federal attitude of overruling and reversing the positive results of the experiments of Dr. Wiley and his subordinates, extending over a period of three times as long and with results in accordance with the findings of the foremost scientists of Europe, that condemn the use of this and like preservatives as needless and dangerous.

“Thereby the national government was committed to making a negative conclusion, drawn from brief experiments upon selected subjects of exceptional physique, form a rule applicable to the entire community, composed of infants and growing children; delicate women and sufferers from slight or serious ailments of the stomach, liver, and kidneys; invalids and semi-invalids; the elderly and the aged, whose vital organs necessarily are comparatively inactive, as well as the young and extraordinarily vigorous.”

This sentiment has been voiced by a number of medical journals. Professor Bergey, of Philadelphia, in the *Journal of the American Medical Association* of September 4, says:—

“The use of benzoate of soda, permitted by Decision 101, is, to my view, an unmitigated evil, since we have the assurance of many manufacturers that such use is absolutely unnecessary to preserve the food materials in which it is used.”

“In view of our knowledge of the detrimental effects of chemical food preservatives, there is no more reprehensible practise than that of permitting their use in foods in any quantity whatever. The better class of manufacturers and dealers have set us an example, which we should follow, in the fight which they are making against the enactment of laws that in any particular permit the use of chemical substances for the preservation of foods where their use is not absolutely necessary.”

Naturally the food journals would be expected to uphold the action of the ref-

eree board. This, for instance, appears in the *Grocers' Criterion*, in comment on the action of the Association of State and National Food and Dairy Departments, which recently met in Denver, Colo., and voted to sustain the position of the referee board. The caption is "Wilson Downs Wiley."

"Secretary of Agriculture Wilson, having won in his fight with Dr. Wiley over benzoate of soda as a food preservative, rightly feels that discussion of whether benzoate is harmful or not should be discontinued. It is a question which has been before the public too long already, and we have no doubt that the grocery trade will be pleased if further argument of a matter which does the grocery business no good, is dropped for good and all.

"It is stated that Dr. Wiley says he will continue the fight. We trust that he will change his mind. The people of the country have had their fill of the benzoate discussion; confidence of many consumers in condiments has been shaken; trade has been hurt. What is wanted now by the trade is a chance to recover."

One can not help feeling that there is a ring of commercial interest back of this utterance. On the other hand, we believe Dr. Wiley to have been actuated by a genuine purpose to protect the consumer against the constant action of a substance which seems, in some cases at least, to have produced very deleterious effects on healthy persons, and which undoubtedly enables unscrupulous men to palm off on the public inferior and partly spoiled goods.

Meat Inspector, Shocked by Conditions, Resigns

AMONG the conditions mentioned by Inspector Harms as prevailing in the East St. Louis packing-house are the following:—

"The inspection at the National Stock Yards, Illinois, is costing the people approximately one hundred thousand dollars a year, and it is not actually worth one dollar to them. The whole thing is a farce. The packers are getting to-day from seventy to eighty per cent of what ought to be condemned or destroyed.

"I have seen from twelve hundred to fifteen hundred pounds of lard spill and run into an open sewer in the floor, the sewer outlet quickly blocked, and the lard taken up from the floor and out of the sewer, both of which were unclean and unsanitary. And your doctors passed the same to the packers over the protest of the inspector on that floor, and it went to the public marked 'U. S. inspected and passed.'"

"Men holding good positions with the packers see and know these things, and acknowledge they are wrong. I have seen animals in a dying condition dragged into the killing beds, and marked 'U. S. inspected and passed.'

"Some of the filthiest things imaginable were practised in the sausage departments; such as using bladders for casings without thorough washing or cleaning, the use of filthy tripe in sausage, the use of slimy hogs' stomachs for casings or containers, the using of meats that have fallen on the floor and are taken up and used without any pretense of cleaning."

Must be interesting reading for those who still feel obliged to eat meat!



The Medical Missionary At Work



Rio de Janeiro, Brazil

H. S. Prener

PERHAPS no city has made more perceptible progress in its sanitary conditions, during the last five years, than Rio de Janeiro. Formerly the streets were little more than dingy alleys; almost no consideration was given to the health of the inhabitants, and a homeless population drifted about the parks and water-front. But now on every side one can see evidences that Brazil is awaking to the most advanced ideas of scientific sanitation. Many of these narrow, dismal streets have been transformed into beautiful avenues, parks have been opened in some of the congested districts, and the streets are well paved and kept scrupulously clean. The water-front, in times past an ideal location for dens of wickedness and haunts of criminals, has been beautified by a sea wall, along which for several miles extends a boulevard, with tropical gardens, most beautifully illuminated at night.

The dwellings condemned and torn down have been replaced by more expensive business blocks, and hundreds of families were driven to find homes elsewhere. The scarcity of houses has made rents exorbitant, and this also largely accounts for the unhealthful conditions that still exist in some quarters, where four or five families huddle together in a small one-story house. The dangers are emphasized when a pestilence strikes the city. The recent epidemic of smallpox was one of the most dreadful visitations for many years. The most conservative

estimate places the number of deaths during its height between five and six thousand. The death-rate for one month is put at thirteen hundred, and the worst week at nearly four hundred. The actual figures are guarded, and will probably always be kept secret.

There are no quarantine regulations, so the contagion had free course, and spread rapidly among the inmates of the crowded houses, sometimes entire families being wiped away. The health department is well organized and efficient, as far as thorough disinfection of homes and vaccination are concerned; but possessing no adequate facilities to aid the stricken, and having only a very few small hospitals at its disposal, which are quickly filled, it is unable to cope with any severe epidemics. The great majority of cases are unskillfully cared for at their homes, and the other members of the family go in and out and mingle with the crowds as they please. Men will greet their gentlemen friends with their customary hug, and the women greet women friends in the same way, adding a kiss on each cheek. Custom has the force of law. The thought of a possibility of spreading the disease doesn't seem to enter their minds.

Although in the tropical belt, where one would expect the people to eat foods that are cooling, such as fruits and vegetables, they crave a great amount of meat, and as a natural result, horrible sores, swellings of feet and hands, and scrofulous humors covering the face and

head, are seen often. The drinking of strong black coffee is another evil which has wrecked the health of many, and the constant nervous tension and wild gesturing are no doubt caused by the use of this stimulant. The United States commission upon coffee, in a recent report, says: "It appears that of all the coffees on earth, that of Brazil is the richest in caffeine." No one who has seen the effects of this poison on the people could doubt it. To quote the traveler, Mr. Carpenter: "The stuff is unhealthful and ruinous to nerves. Observe the Brazilians you see, and note the amount of involuntary motion." He describes a visit to a crowded restaurant, and the alarm of his lady companion because of the peculiar shake of those seated. "Sure enough, there wasn't a quiet knee in the room. Every one was oscillating with the methodical beat of a piece of machinery, or working up and down like a pump rod. Too much strong coffee was the matter. The Brazilians are not intemperate in the use of alcoholic drinks, but they take this beverage immoderately strong."

The sins and evil effects of bad habits

of the Brazilians' forefathers are visited upon this generation. Cigarette smoking seems universal, and often women of the lower class are seen with pipes. This vile custom, which masters the boy and controls the man, may serve as an explanation why tuberculosis is so fatal among the natives.

Severe and revolutionary methods and building laws are being enforced to stamp out this terrible disease. The ordinances in this city and some others require all houses to have very high ceilings, large windows and doors, and the floor of the first story of dwellings more than three feet from the ground. Darkness, dampness, and poor ventilation are being eliminated, but they are neglecting other weighty matters, the use of tobacco and coffee, excessive meat eating, and other forms of intemperance being common.

Much credit is due to the medical commission and federal administration for the changes from the general unhygienic conditions of the past, but Brazil's greatest need, at present, is the education, in personal hygiene and true gospel temperance, of the public who are now rooted and grounded in their old ways.

Sketches From Chinese Life

Percival J. Laird

WHATEVER may be said of other nations, it is agreed that few are more ubiquitous than the Chinese, and their readiness to "make it do" anywhere and under all circumstances is proverbial. Doctors are ever ready to relate how much pain their Chinese patients will suffer without a murmur. And wherever they live among other Orientals, in the "survival of the fittest," statistics invariably give Chinese first place. Their domestic life appears to call for overcrowding as a

normal condition, and yet the large number of aged people one meets is phenomenal.

Visitors to Chinese port towns express surprise at the heavy loads carried across the shoulders of her sons. Some push wheelbarrows with four occupants on each side—eight in all. Others pull a jinrikisha long distances, and maintain a jog trot the while. Two or more men will carry a sedan-chair, with its occupant, from twenty-five to thirty miles in one day, weather and roads permitting.

The hottest weather does not detract greatly from their pace or distance. Of course the longer day helps some.

Perhaps the best way, albeit not necessarily the most convenient, to obtain first-hand knowledge of the mode of living of the average peripatetic Chinese, is to travel much as they do, and to subsist on a like daily ration. The writer, at times, has had to go a journey of a day or two on a meager diet of inferior rice, and dry or wet bean cake. Sometimes even this has been lacking, and not a morsel of vegetable food procurable. On one occasion we arrived at a small village well tired out, and the next stopping place was about five miles ahead. Search as we would, money could not buy more than a small bowl of salt turnips. These lasted for one meal only; the two other meals were of rice, and that alone. It is too bad there are not more kitchen gardens in those districts. In other places, vegetables in endless variety are daily sold on the streets; legumes are plentiful for a short season; fruits and nuts vary according to locality, being plentiful in some places, and scarce in others. The

fruit is often picked and eaten while still green.

Many writers have said it is hard to get out of sight of a grave in this land where ancestor worship has made its "dead men into gods; and its only gods are dead men." Another says, "The hundreds of millions of living Chinese are under the most galling subjection to the countless thousands of millions of the dead." Scourges of smallpox, bubonic and other plagues, cholera, and famine carry off large numbers annually.

Sometimes we have to stop and ask ourselves why such an apparently hardy nation should have such a high death-rate. Why are its apothecary shops so innumerable, and its 'medicine-men legion? Why are its living afraid to die, and afraid of those already dead? Demonism thrives where dirt, unhygienic diet, drugs, disease, and death run riot.

But there is life in the truths of the living gospel of Jesus Christ. And it is to bring to this great mass of perishing humanity life-giving truth that we labor and pray.

Chang-sha, China.



ANCESTRAL HALL AT CHANG-SHA



Native Medical Treatment

THOSE who have any doubt as to the need and merciful mission of the Christian doctor in heathen lands should read the following extract from the letter of Mr. Scouten, written near Kambui, East Central Africa. It is an account of a native medicine-man, trying to cure a lad and a girl of malarial fever. The writer *saw* what he recounts:—

“A hole was dug, in which were placed large banana leaves, to form a receptacle for the concoction. This hole was filled with water, part of it first being poured out on the ground beside the patients. Then the doctor took part of the intestines of a sheep, and rubbed a little of the filth from them on the foreheads and palms of the sick, and on their relatives. Then he prepared his decoction. From gourds which he carried, he poured out colored powders, and mixed them up in his improvised bucket. He seated the patients close to him, and then tied them together with a small vine around the foot of each.

“The most important item in the treatment was now produced—the stomach of the sheep which had been killed for the occasion, the flesh meanwhile roasting at a little distance, to be eaten by the medicine-man when he had finished. Through an opening made in the side of the stomach, the patients were made to suck out [part of] its fluid contents, after which the remainder was emptied into the hole, and completed the ingredients of the decoction.

“The doctor then took, in each hand,

a bunch of herbs, tied together at one end, and dipping these swabs into the mixture, put them to the mouth of the patients, reciting at the same time, in a sing-song tone of voice, ‘By this I take away all the evil effects of whatever is troubling you, the attacks of evil spirits, whatever poison you may have eaten, whatever harm has been inflicted upon you by blacksmiths [supposed to be gifted with superhuman power], whatever of evil has come to you in the path, whatever distress has been wrought upon you through your friends, whatever has been inflicted upon you by your enemies, and all the diseases with which God has afflicted you.’

“This and much more the old doctor thrice repeats, all the time dipping out to the long-suffering patients this horrible concoction, first with the bunch of herbs, and then with the foot of a kid or some other small animal, and afterward with a brush of herbs dipped in the mixture, sprinkling the ground all around them, and then brushing them down, from head to foot, and when he had finished, shaking the brush out at a little distance, with the words (referring to the various ills from which he was relieving them), ‘Those are they.’

“The final act in the ceremony was to anoint the nose and thumbs and great toes of the man, and some other spots on the body of the girl, with some kind of white paint. They were then released, and told to go and get well. Both patients were next day in a dying condition.”—*Missionary Review of the World*.



Unsigned articles are by the editor

Pure Milk Versus Cheap Milk

IT is not our intention to be alarmists. Alarm does not conduce to health, neither does undue caution, nor a constant fear that what one eats may be unhealthful or contaminated or filthy.

Nevertheless, we feel it a duty to speak in no uncertain terms regarding milk. Now we must concede that milk is a food of most excellent nutritive qualities, especially valuable for those who partake of no flesh food, and almost invaluable for infants.

But it requires vigilance on the part of the consumer in order to insure a clean, wholesome article of diet.

In the first place, many dairy cows are diseased, especially with tuberculosis; and though it is generally understood that Professor Koch considers the infection of human beings from cows an open question, the majority of physicians who have much to do with children do not so consider it, and there are some who go so far as to assert that tuberculosis comes almost entirely from the cow.

At any rate, until the weight of evidence is quite different from what it now is, it is certainly unwise and unsafe to feed a child on raw milk from a cow or cows not proved by scientific test to be free from tuberculosis.

Hardly a dairy is free from the dis-

ease. A cow may be sleek and fat, and yet upon slaughter prove to be frightfully tuberculous, so much so, at least, that her milk, if eaten raw, is a source of real danger.

Again: if there is tuberculosis in the herd, the bacilli are discharged, and form a part of the barnyard filth, more or less of which finds its way into the milk; so that even if the particular cow which furnishes milk for your baby is free from the disease, baby is not safe if other cows in the same yard have the disease.

A second source of danger not to be overlooked is the carelessness of those who handle milk. Except where dairies are properly inspected, and where a hygienic conscience has been inculcated in the dairymen, it is safe to say that the milk is anything but clean.

It costs more to produce clean milk from healthy cows. The investment is greater, and more wages must be paid for intelligent, conscientious help. Hence clean milk necessarily costs more than dirty milk. The people should be educated up to the point where they will have clean milk whatever it costs, or no milk. As long as there is a general sentiment that "milk is milk," and that "all milk must be supposed to be clean that is not proved to be dirty," people will buy the dirty milk, the dangerous milk,

in preference to healthful milk, so long as it can be obtained for a cent or two less per quart.

The District of Columbia Association for the Prevention of Tuberculosis, composed of men of more than local reputation, has unanimously voted to place itself on record as favoring the following propositions:—

1. The tuberculous cow is a source of tuberculosis among persons, not the principal source, but nevertheless a source of too much importance to be ignored. It is dangerous to use raw milk and milk products from tuberculous cows.

2. Tuberculosis is so prevalent among dairy cows that no dairy cow can safely be regarded as free from the disease unless she is proved to be so by the application of the tuberculin test.

3. All milk obtained from cows not

proved to be free from tuberculosis by the tuberculin test should be Pasteurized. All cream derived from milk of untested cows should be Pasteurized before it is used as cream or in the preparation of ice-cream or butter.

4. Raw milk which is of unquestionable purity is far preferable to Pasteurized milk.

5. Pasteurization of milk should be regarded as a temporary expedient. Consumers should demand, and producers should furnish, milk of such purity that it may be safely used in a raw condition.

6. Pasteurization in this connection means to heat the milk to not less than 140° F. and not higher than 158° F., for twenty minutes if at the lower temperature, and ten minutes if at the higher temperature.

The Demand for the Untrained Nurse

THE September *Medical Times* has an editorial article with this caption, calling attention to the crying need existing for nurses of moderate accomplishments to work among those who have not the means to pay a trained nurse.

If, as the article says, only about ten per cent of all families have a salary aggregating two thousand dollars a year, that is, forty dollars a week, the other nine tenths, when called upon to pay twenty-five dollars a week for a nurse's services, have a burden which they are ill able to bear.

If we add to this the fact that nurses sometimes have the *caste* idea of India,—feel it beneath them to do anything outside of their professional work, and add materially to the domestic burdens of the family by their presence,—we can appreciate that the need to employ a

trained nurse by any family not moderately wealthy, is almost a financial disaster.

The law has had the effect, generally, of giving an undue advantage to the graduates of certain favored hospitals, while other hospitals and sanitariums, turning out efficient nurses, have been handicapped. It is the old Standard Oil methods applied to this profession.

We have been intimately connected with the nursing work for years, and have nothing but admiration for the spirit of self-sacrifice manifested by many following this profession; but we are not at all certain as to the wisdom of the laws requiring the registration of trained nurses. By limiting the supply of registered nurses, it is possible to create a privileged order whose presence bodes no good either to physician or patient.

Prominent physicians are viewing with much misgiving the developments following the enactment of the registration laws, and an association has been formed for the purpose of preparing for the use of physicians generally a list of nurses independent of the state registration. This association is known as the Physicians' Natural Board of Regents, with headquarters at 1717 Chestnut St., Philadelphia, Pa.

They desire to commission nurses under four classifications:—

1. Commissioned and Official Nurses: Those having completed a two-years' course or more in a general hospital or training-school.

2. Approved Nurses: Those having completed a two-years' course in a special hospital.

3. Attendant Nurses: Those engaging in nursing, after having had only a theoretical or correspondence course of instruction.

4. Provisional Nurses: Those having been engaged in nursing for a year or more, that is, the so-called practical nurse.

It is intended to publish and have on file at every county medical society, and available also to individual physicians, a National Calendar of Nurses, showing classification and credentials. Ample resources have been provided to insure the execution of these plans.

It will be seen from the foregoing that physicians see that a regular two-years' course gives, if properly used, all the fitting-up a nurse needs to work under a physician.

The Hookworm Disease

FEW are aware how prevalent this disease is in the South, especially in sandy districts. The disease is caused by a parasite which gains entrance into the body by way of the mouth or the skin. It undergoes a number of transformations, the worm stage being in the human duodenum, or small intestine, where it attaches itself to the wall, and lives at the expense of its host, discharging enormous numbers of eggs, which, however, are incapable of again becoming worms until they have left the body of the host, undergone certain changes, and again entered the same or some other person. For this reason, a person moving away from a hookworm district is not very likely to be reinfected. However, the worms are capable of living for several years; and if they are numerous, they quickly sap the vitality of the host.

Among the symptoms of hookworm

disease are anemia (manifested by paleness), listlessness, incapacity for study or perhaps actual stupidity, progressive emaciation, swelling of the abdomen, puffiness of the face, and a marked tendency to eat earth. Microscopical examination of the feces will in all cases of the disease reveal the presence of eggs.

Every case, no matter how mild and insignificant the symptoms, should be treated, in order to prevent the discharge of myriads of eggs, which may develop and infect other persons.

In an infected district shoes should invariably be worn, the food, especially ground vegetables, should be cooked, and drinking water should be filtered or boiled. There is even an opportunity for infection from the water used in washing or bathing if it comes from an infected well.

As with diphtheria and typhoid fever, so with this disease there are "carriers"

who show no signs of the disease, but who nevertheless harbor the worm, and discharge large numbers of eggs, to be a menace to others. The region of this country where the disease is most prevalent lies along the South Atlantic coast and the Gulf of Mexico.

As it is almost impossible to induce people to boil or filter water, the next best thing is to have the privy as far as possible from the well and the house. Far safer, however, is the practise of using no uncooked food which has grown on the ground, and no unboiled or unfiltered water in an infected district.

Treatment to remove the worms: take

thymol, 31 grains, at 8 A. M., 31 grains at 10 A. M., and castor-oil or other cathartic at noon. If at the end of a week eggs still show under the microscope, the dose should be repeated. Such treatment should not, however, be undertaken except under the care of a physician.

Following the expulsion of the worm or worms, treatment should be given to build up the general health of the patient.

An excellent article on "The Vampire of the South," in the October *McClures*, gives very full information regarding the hookworm disease.

Pellagra

TWO recent writers divide this disease into two groups:—

1. True pellagra, due to eating damaged corn. This disease is more or less frequent in parts of Italy, Spain, the Tyrol, Rumania, Egypt, and the United States.

2. Pseudo-pellagra, not connected with the use of corn, but due to poverty, poor nutrition, bad hygiene, alcoholism, and advanced tuberculosis.

It is said that the symptoms in both conditions are identical, and occur only among the poorest classes, who have food of an inferior quality. In true pellagra, the disease is supposed to be due to poisons produced by a fungus growth. These poisons have been extracted from

the fungus and administered to animals, producing skin changes, digestive disturbance, and paralysis, ending in death. These are characteristic symptoms of pellagra in man.

Though the belief that pellagra is due to the use of damaged corn has been handed down from a hoary past, the evidence which would place this belief on a safe scientific basis is somewhat lacking. It may yet be proved, as with malaria, yellow fever, etc., that the disease has a cause entirely different from the one usually assigned. It is to be hoped that the investigations undertaken because of the present epidemic may result in knowledge which will enable us to control the disease.





Tuberculosis Notes

THE death-rate from tuberculosis among the Chinese residents of the United States is 658.5, and among the Japanese 239 per 100,000 living, while among the white population of the country the rate is 173.

STATISTICS published by the *Imperial Gazette* show that in recent years there has been a steady decrease in the number of deaths in Germany from tuberculosis, and especially from tuberculosis of the lungs.

ACCORDING to tests made recently on seven hundred twenty-eight children from the tenement-house section of New York City, twenty-eight per cent showed signs of tuberculosis either of the joints, glands, or lungs.

ACCORDING to United States consular reports, the tuberculosis death-rate is twice as large in Syria and Turkey as it is in the United States. There is only one special hospital for this disease in the entire Ottoman empire.

BECAUSE of the alarming prevalence of tuberculosis among the city children, the Association for Investigating the Condition of the Poor in New York City will work for the establishment of open-air schools in the poor districts of New York City.

ON the basis of one hundred fifty thousand deaths yearly from tuberculosis, in the United States, there are 684,934 persons constantly sick with this disease. Allowing only \$500 as the average earnings of the working man who dies, the annual loss to the country from the ranks of labor alone is over \$114,000,000 each year.

DR. BERTILLON, the eminent French vital statistician, has shown that tuberculosis is twice as prevalent among the retail liquor dealers of France as among other shopkeepers. He attributes it to the fact that the alcohol which they handle and use all day long weakens their bodies, and thus renders them more susceptible to the disease germ.

THE Sea Breeze Home is an institution for giving vacations and fresh air to New York schoolchildren, similar to Camp Good Will, described in the September *LIFE AND HEALTH*. Of seven hundred twenty-eight of these children sent to the home as in ordinary health, twenty-eight per cent were tuberculous, as shown by the tuberculin test. There was a higher percentage of infection among the girls than among the boys.

LETTERS and mail-bags are frequent carriers of tuberculosis. According to testimony recently given before the postal commissioner of the British empire, during the last twenty years eighty per cent of the deaths among letter sorters had been due to consumption, contracted by the men after they entered the service.

PROF. KARL PEARSON'S theory that the first-born children of a marriage are more likely to fall victims to consumption than the latter-born offspring has been freshly tested. An investigation of twenty-five hundred families shows that in normal families the fourth, fifth, and sixth children are more liable to die of tuberculosis, than are the first, second, or third.

THAT poverty is a friend to consumption is demonstrated by some recent German statistics, which show that of 10,000 well-to-do persons, 40 annually die of consumption; of the same number only moderately well-to-do, 66; of the same number really poor, 77; and of paupers, 97. According to John Burns, the famous English labor leader, 90 per cent of the consumptives in London receive charitable relief in their homes.

OF forty-three State legislatures that have been in session since Jan. 1, 1909, twenty-eight have passed laws pertaining to tuberculosis, and eight others have considered such legislation. Out of 101 laws relating to the prevention or treatment of human tuberculosis which were considered, 64 were passed. Of these, fourteen were in reference to building new State institutions. Five States passed laws giving their county officers power to erect tuberculosis sanatoria. Seven States—Maine, Connecticut, Rhode Island, New Jersey, Michigan, Iowa, and Kansas—have passed laws providing for the strict reporting and registration of tuberculosis. Such laws are now in force in eleven States and the District of Columbia. Five States—Maine, New Jersey, Pennsylvania, Kansas, and Connecticut—have passed laws prohibiting promiscuous spitting in public places. Ten States have appropriated nearly \$100,000 for education of the public about tuberculosis. Altogether, over \$4,000,000 has been appropriated for the suppression of consumption by State legislatures, in addition to nearly \$1,000,000 devoted by Congress to the maintenance of three national sanatoria for the care of tuberculosis patients.



International Medical Congress.—Four thousand members, from many countries, attended the congress, which opened at Budapest, August 28.

Queer, Isn't It?—A scientist is authority for the statement that the eight hundred men employed in the Paris sewers have average health, and that no other eight hundred men in Paris are so free from infectious diseases.

The Benzoate Men Victorious.—At the Denver Pure Food Convention the question of the injuriousness of sodium benzoate was thrashed out, with the result that a vote was passed sustaining the action of the referee board.

Osteopaths Can Not Sign Death Certificates.—The contention of the New York City health department that osteopathic practitioners have no legal right to sign death certificates in that city has been sustained in the New York supreme court.

Free Hides and Anthrax.—A veterinarian has objected to the removal of duty from hides, for the reason that it will greatly increase the importation of foreign hides, and in proportion increase the liability to transfer the anthrax scourge to this country.

Instruction in First Aid.—Beginning with the employees of the large steel mills, the National Red Cross is planning to give instruction in first aid to the injured, on a large scale. With the aid of local physicians, it is planned to carry this work into every important city.

Sterilization of Criminals.—The idea is growing that habitual criminals should not be permitted to transmit their degenerate characters to posterity. Already Indiana has successfully sterilized more than four hundred criminals. The idea is repulsive to some, but it has a sound basis.

Infantile Paralysis Epidemic.—In one Brooklyn district this disease (anterior poliomyelitis) is epidemic, hundreds of children having been attacked. There was a similar outbreak in New York two years ago, when there were perhaps from fifteen hundred to two thousand cases.

More Pure Milk.—The New York Milk Commission plan the expenditure of nearly fifty-six thousand dollars the coming year, supplying pure milk to tenement mothers, and educating them in the proper care of their infants.

New Jersey and Mosquitoes.—At a cost of five dollars an acre, New Jersey has drained some ten thousand acres of marshland, ridding it of salt-water mosquitoes. Where formerly the principal crop was obnoxious insects, there is now raised an excellent crop of marsh hay.

Magnesium Sulphate in Tetanus.—A boy with lockjaw had been unsuccessfully treated for ten days with chloral and morphin, then with serum, but grew worse. On the twelfth day an intraspinal injection was made of 2 c. c. of a twenty-five-per-cent solution of magnesium sulphate, and 3 c. c. in the morning. The boy got well.

Physical Education Under State Contract. It is said that the Australian government has appropriated one hundred twenty thousand dollars for the establishment of a system whereby every child shall have thorough physical training and medical supervision at state expense. The intention is to make of the boys able-bodied men, and to fit the girls for the duties of motherhood.

The National Medical Association.—The latter part of August there was held in Boston the annual session of the National Medical Association. This association consists of colored physicians, and corresponds to the American Medical Association among the white physicians. Among topics that received special attention was tuberculosis, its diagnosis, relief, and prevention.

Can the Chemist Create Life?—A professor in the University of California, who has been working diligently for years to prove the affirmative, still believes that in chemistry is to be found an explanation of all vital phenomena. He does not hesitate to assert that there is no inherent impossibility in creating life in a mass of inert organic matter by means of chemical processes. But, professor, we prefer to wait until we see it accomplished.

Anthrax.—This disease is epidemic (or shall I say epizootic?) in New York and Wisconsin dairies. Shipment of milk, of course, is forbidden, and cows are quarantined as soon as suspected.

Early Treatment of Insanity.—A British royal commission on the care and control of the feeble-minded has recently made a report urgently recommending that insanity in its early stages be given more attention than has been hitherto customary. They suggest the utilization of buildings other than the regular insane hospitals for the care of these incipient cases.

The Physicians' Board of Regents.—This organization, formed for the purpose of protecting patients and physicians from the domination of the registered nurse, has established headquarters at 1717 Chestnut St., Philadelphia. The official organ is the *Guide Book*. Official lists of all qualified nurses, in four grades, will be prepared and furnished for the inspection of all physicians in the United States.

Playing With Sand.—The *Lancet*, commenting on the very natural and healthful amusement of playing in the sand at the seashore, suggests that there is some danger of infection in a sand-box where the sand is used by numbers of children, perhaps for weeks without changing. The suggestion is made that it might be better to keep the sand damp and free from dust. Possibly. But we think a sand-box with a sunny exposure will not have very many infections to its credit.

Rivals Sodom.—Dr. T. A. MacNicholl, before the Atlantic City meeting of the American Medical Association, asserted that conditions in New York City rival Sodom. Of 30,000 schoolchildren examined in that city, 17,700, or fifty-nine per cent, drink alcohol in some form; 11,100, or thirty-seven per cent, drink daily from one to five glasses of beer; 6,300, or twenty-one per cent, drink wine or spirits; 13,800, or forty-six per cent, are backward in their studies. Some are inclined to believe this report very much exaggerated. We hope it is.

New Theory Regarding Constipation.—A physician has observed in his constipated patients an abnormal absorptive power of the lower bowel. This he found to be overcome by the use of oil, but after a time oil becomes rancid and acts as an irritant. Afterward he used paraffin, a mixture of hard and soft, having a melting point just about body temperature (38° C). Using this as an injection, 200 c. c., he has excellent results. Of forty-six cases where he used it in the evening, he had good movements in forty-four cases in the morning. Why not use vaselin or petrolatum?

Traffic in Old Horses.—The London *Lancet* protests against the traffic in "decrepit horses, which, to the discredit of this country [England], is carried on from London and sundry parts to the North Sea." The wretched animals, we are told, are shipped to ports in Belgium and Holland to be converted into food for the poor, "and possibly for other classes as well, for we do not know the ingredients of all the *delicatessen* in the market."

Ground-Squirrels and Bubonic Plague.—The United States Public Health and Marine Hospital Service physicians, having that topic under investigation, have reported definitely that the ground-squirrel is an important means of transmitting plague; that some cases of human plague have been actually traced to this source; that plague has been demonstrated in a large number of squirrels in one county in California. An effort will, of course, be made to exterminate the squirrels.

How Infection Is Carried.—Dr. Benedict, of the New York health department, writing to the *Medical Record*, says: "In the light of experience, I am of the opinion that the danger of transmission of scarlet fever, measles, and diphtheria in the schoolchildren, is not in the clothing worn by well children from infected families, but rather in the fact that initial symptoms of these diseases are often overlooked, and that the children supposedly well attend school when first attacked, and thus transmit disease."

Indifference Regarding Public Health.—At the meeting of the British Medical Association, Dr. Edward Magennis, of Dublin, read a paper on the "Duties of the School Medical Officer," in which he deplored the indifference of the public to health topics, and stated his opinion that more attention is paid to the health of cattle than of human beings. Same here. Congress will vote thousands to save hogs where it will not give a dollar to save babies. Hogs represent dollars, and dollars appeal to congressmen.

Milk Conditions in Paris.—M. Martel, chief of the sanitary service of Paris, states that the mixed milk coming from the country has no sanitary guaranty whatever. In the surrounding dairies, the feeding of animals is not well understood, and the milk is consequently inferior. In the neighborhood of the distilleries, large quantities of the "mash" is fed to the cows, increasing the output of milk at the expense of its quality. Sometimes cows receive no other drink than this "mash." Tuberculosis is especially prevalent among the cows fed on distillery slops. The repulsive smell around the dairies and the dirty state of the hind quarters of the cattle, indicate that the milk must be anything but ideal.

The Early Bird and the Worm.—It is said that there is more dust in city air in the early morning than at any other time, and that the early riser takes more dust into his lungs than the person who sleeps until noon.

Congress for the Care of Infants.—In June there convened in Dresden, Germany, the first German congress for the care of infants. Three main topics were considered: Infant mortality and infant hygiene; maternity homes for reducing infantile mortality; encouragement of lactation or nursing, on the part of mothers.

Typhoid Fever Due to Shell-Fish.—A recent issue of the London *Lancet* has an editorial article calling attention to a paper by Dr. Mair, showing that the marked prevalence of typhoid fever in Belfast is due to the consumption of infected shell-fish, and making the comment that Dr. Mair had thoroughly established his position with regard to the Belfast epidemic.

Diet in Insanity.—Frederick T. Horsford, physician of New Jersey State Hospital, in a paper recently read before a medical club, stated his opinion that a proper moderation in the quantity of food eaten, especially proteid food, is of great importance in the limitation of mental disease. He believes another important means of preventing insanity in the young is to prevent, by proper education, the formation of the alcohol and tobacco habits.

Poisonous Fish.—Recently seventy men on a French battle-ship stationed in Chinese waters were seriously poisoned, one of them fatally, as the result of eating a kind of fish native in those waters. The attack followed within a few hours after the fish had been eaten, and was violent. There was no evidence of the presence of decomposition or of bacterial poison. It was learned afterward that the natives, in using this particular fish, which is especially tender, subjected it to prolonged cooking, and removed certain parts.

Effect of Increased Tax on Rectified Spirits.—The government of Great Britain proposes to increase the tax on rectified spirits. This, the *Lancet* believes, will work a hardship on hospitals and on physicians who supply their own medicines. The suggestion is made that the physicians should reduce to a minimum the use of alcoholic preparations and drugs; and there is no room to doubt that many of the tinctures and other spirituous preparations of the British pharmacopœia contain substantially more alcohol than is for any purpose necessary. The fact is, advanced physicians are learning that they can do entirely without the use of alcohol. The tax may serve to educate a few more.

White Rice a Cause of Beriberi.—Strong evidence has been presented that the disease beriberi is caused, not by an infection, but by the consumption of "uncured" or "white" rice. Those who live under identical conditions, but who eat parboiled rice, do not contract the disease, and in cases where the disease is contracted, a change from "white" to parboiled rice causes a cessation of fresh attacks. It has been thought by some that beriberi is due to diet lacking in proteids. This evidence would indicate that the lack of proteid is only a contributing cause of the disease. One conclusion reached by the recent observers is that "the outbreak of beriberi can not be attributed to deficiency in the diet used, either in respect of proteids, fats, carbohydrates, or salts."

Appendicitis Operations.—At the International Medical Congress there was a tilt of swords between conservative Europeans and "progressive" Americans regarding the value of early operations in appendicitis. Sonnenburg, of Berlin, contended that operation is seldom called for, at least not so frequently as American surgeons would have us believe, ("just think of the fat fees!") and reported three hundred cases of acute appendicitis where the diagnosis was certain, recovery taking place without operation in every case. He asserted that early operation in appendicitis is not essential, and that the after-condition of the patient is better when the conservative plan has been followed. Naturally, the American champions of radical measures emphasized the importance of an early operation, bringing forward statistics to show that the recovery is better after early operation than where it is delayed or omitted.

Prevalence of Pellagra.—There is considerable concern in some quarters, especially in the South, regarding the increasing prevalence of pellagra, a disease which was until recently supposed to be rare on this continent. It seems that the disease has been treated for eczema or other skin disease. On the theory that the disease is caused by eating musty corn, an effort is being made in Mississippi to enforce the inspection of all corn brought into the State. In Alabama recently there was reported an outbreak in one county, with five deaths, three dying, and five under observation. In another county one hundred cases were reported. An outbreak of some seventy-five cases in the State hospital at Peoria, Ill., has called Captain Seiler, of the army medical corps, to that place to investigate the disease. The marine hospital service, because of the great increase in the incidence of the disease, has begun the publication of a weekly bulletin on pellagra. Fourteen cases have developed in the Baptist Orphanage, Nashville, Tenn.

Diphtheria Carriers in the Schools.—A recent examination of about four thousand public-school children in the vicinity of Boston, Mass., revealed diphtheria bacilli in the throats of 1.3 % of the pupils, there being no symptoms present to indicate the presence of the disease. The question still remains, Are these diphtheria bacilli capable of transmitting the disease, or are they so attenuated as to be practically harmless?

Diphtheria Carriers.—At the recent meeting of the British Medical Association, the topic of Latent Infections of the Diphtheria Bacillus was considered. Dr. Watson Williams mentioned three classes of diphtheria carriers: (1) Patients with none of the usual diphtheria symptoms, but who are anemic, with rapid pulse, and perhaps some catarrh, redness of the throat, running ears, and the like; (2) patients having characteristic diphtheritic throats, but having no general symptoms of ill health; (3) persons apparently in good health, and having no noticeable throat trouble. In all three classes the diphtheria bacillus has been identified, and there is evidence that the disease has been transmitted from all three classes of cases. Dr. Clark, health officer of Leeds, believes it is important, when diphtheria occurs in a family, that

cultures be made from the throat (and nose?) of every member of the family, and that those showing the presence of the bacilli should be isolated. Though this would necessitate increased work at first, it would so limit the spread of the disease that in the end it would lead to less work.

National Conference of Pellagra.—Under the auspices of the South Carolina State board of health, a national conference on pellagra will be held in Columbia, S. C., November 3 and 4. Pellagra has been reported so far in seventeen States, possibly having been present for a shorter or longer period, but not recognized.

Medical Sectarianism Passing.—There seems to be a tendency to do away with old sectarian landmarks, and to unite all medical men in one profession. Medical societies are not so straight-laced as formerly, and there is more disposition to counsel between men of different schools. An old Chicago eclectic school has given up its sectarian name and teaching. A homeopathic college in Baltimore, and one in Denver, have done likewise. Homeopathy is practically abolished in the University of Minnesota, and an old St. Louis homeopathic school has closed its doors.

An hygienic condition of the mouth can best be attained by
the systematic use of

LISTERINE

Many persons who have regularly employed Listerine since it was first introduced, have satisfactorily demonstrated the truth of this statement.

The success of Listerine in this special field of personal prophylaxis has caused it to be more generally substituted and imitated than any similar preparation; the usual argument of the substitutor is: "it's something like Listerine."

Listerine is supplied in 14-ounce, 7-ounce, 3-ounce, and more recently, in 1-ounce bottles, that a knowledge of its desirable qualities may be obtained at the minimum of expense, 15 cents.

Be assured of the genuine by purchasing an original package.

A brief treatise upon the care of the teeth, together with a booklet descriptive of Listerine, may be had upon application to the manufacturers,
Lambert Pharmacal Company, St. Louis, Missouri,
but the best advertisement of Listerine is—

Listerine.

GOOD PIANO TUNERS
Earn \$5 to \$15 per day

We will teach you Piano Tuning, Voicing, Regulating and Repairing, quickly by personal correspondence. New Tune-a-Phone Method. Mechanical aids. Diploma recognized by highest authorities. School chartered by the State. Write for free illustrated catalogue. Niles Bryant School of Piano Tuning, 44 Music Hall, Battle Creek, Mich.



Will Make a First-Class Bookkeeper of You



in six weeks for \$3, or Return Money; distance and experience immaterial; 117 Positions, too, everywhere, free; 9,615 testimonials! Placed pupil February 24, at \$45 weekly; perhaps we can place you, too! Save this and write.

J. H. Goodwin, Expert Accountant
 Room 763, 1,215 Broadway, - New York City.

National Institute of Garment Cutting and Making. Every detail of this art personally taught by experts. We also teach by correspondence. Agents wanted.

HEALTHFUL GARMENT CO.

Takoma Park, - Washington, D. C.
 Eva K. Cogshall, Sec.



WHY NOT BE AN ARTIST?

Our graduates are filling High Salaried Positions. Good artists and upwards, in easy fascinating work. Our courses of Personal Home Instruction by correspondence, are complete, practical. Eleven years' successful teaching. Expert instructors. Positions guaranteed competent workers. Write for Handsome Art Book, Free.

SCHOOL OF APPLIED ART (Founded 1898.)
 T 406 Gallery Fine Arts, Battle Creek, Mich.

WANTED

A good man or woman in every town to sell our Five-Slice Wire Cone Toasters, for gas and other vapor stoves. This upright Toaster is a perfect device, and will sell at sight. Will send one by express, prepaid, for 50 cents. Send for sample and catalogue of other fast-selling articles.

HARKINS & WILLIS, 547 Elizabeth St., Ann Arbor, Mich

HYGIENIC COOKING OIL

The Shortening Used By Our People

A Choice Salad Oil

A perfect vegetable food fat, that keeps indefinitely. Always sweet and wholesome, never rancid. Guaranteed under the Pure Food Laws. Shipped in crated cans direct from the refinery to your station. 5 gallon can, \$3.50; two 5-gallon cans in one crate, \$6.75. 8 one-gallon cans in one crate, \$6.15. In 1-2 barrel (about 32 gallons), 60 cents per gallon. Cash with order. Send stamp for cook booklet and circulars. Shipped from Louisville, Ky. Address,

DR. O. C. GODSMARK,
 Chattanooga - Tennessee.

These trade-mark crescent lines on every package

CRESO FLOUR DIET FOR DYSPEPTICS

And Cases of KIDNEY AND LIVER TROUBLES AND OBESITY

Makes delicious foods for everybody. Unlike other goods. Ask physicians. For boot or sample, write

FARWELL & RHINES, WATERTOWN, N. Y., U. S. A.

DON'T READ AT RANDOM

Read This Course

THE GREEK VIEW OF LIFE, by G. Lowes Dickinson, Cambridge	\$1.00
SOCIAL LIFE AT ROME, by William Warde Fowler, Oxford	2.00
THE HOMERIC STORIES (Translation of Iliad and Odyssey, illustrated)	1.25
THE FRIENDLY STARS, by Martha Evans Martin	1.25
THE CHAUTAUQUAN Magazine (Monthly—illustrated. Membership included if desired.) Containing: "Woman in the Progress of Civilization" (George Willis Cooke); "A Reading Journey Through Egypt" (Prof. James Henry Breasted); "Historic Types of Architecture" (Prof. Lewis Frederick Pilcher), and much additional material of general interest for voluntary reading	2.00

Total \$7.50
 All four books and the Magazine to one address (cash with order) \$5.00

"Easy for Anybody, Worth While for Everybody"

If in doubt, send stamp for hand-book of testimonials.
 Address Chautauqua Institution, Chautauqua, New York.

GET THE CHAUTAUQUA IDEA

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

VIBRATION IS LIFE!

Read What Others Say

Here are a few of the hundreds of unsolicited testimonials from people who have used the White Cross Electric Vibrator and know what it has done. It will do the same for you.

PARALYSIS TREATED BY VIBRATION

Upon the request of my sister, who urged me to use her great Electric Vibrator on my son when I was thoroughly hopeless of his cure from physicians' treatment, I write you this recommendation. My son is 16 years old, and eight months ago became paralyzed from the after-effects of diphtheria. He was so badly afflicted that his arms and limbs were twisted out of shape and was confined, all doubled up, in his bed. Medicine and attention did no good, and I had become discouraged in all ways. After treating first his spine at the base and then his limbs with your vibrator he felt such relief that I kept up the treatment regularly, with the result that we soon had him around in a wheel chair. Next he was going around on crutches, and now, after three months' treatment, he is going around with a cane and will soon be entirely cured.

3122 Indiana Ave., Chicago.

MRS. C. KNIGHT.

WHAT A DOCTOR SAYS

I have received your Vibrator, and to say that I am well pleased with it is not enough. I wish I could tell every physician just how bad he needs one in his office. I am sure he would not hesitate to place his order for one at once.

Longmont, Colo.

DR. W. H. EASTER.

VIBRATOR BEST FOR RHEUMATISM

My husband uses your vibrator for rheumatism and says he never had anything so good in all his experience. I would not be without it myself, as I find it is good to relieve stomach pains, back ache, and besides I continually use it for face massage. I need to go down town for that, while now I save the money and the time, besides being comfortable in my own home.

MRS. S. H. BROWN,

2935 Varion Ave., Chicago, Ill.

Here is a Picture of the wonderful WHITE CROSS ELECTRIC VIBRATOR, the only vibrator in the world which combines the three great forces of Vibration, Galvanic and Faradic Electricity. This is the very same machine which has cured thousands of cases which had been given up by the best physicians as incurable. Read the letters above, then send the free coupon at once.

The secret of the ages has been discovered in *Vibration*.

Great scientists tell us that we owe not only our health but even our very life to this wonderful force.

Vibration gives life and vigor, strength and joy to everyone.

Vibration is the most marvelous curative agent known. It is the remedy provided by Nature for all illness and disease. It cures like magic. Simple, sure and inexpensive—it banishes drugs and doctors forever.

The White Cross Electric Vibrator On Free Trial!

This wonderful instrument gives you the three greatest natural curative forces in the world—Vibration, Faradic and Galvanic electricity.

We want to prove to you at our expense what the great White Cross Electric Vibrator will do for you. We want you to actually feel its invigorating, health-giving thrill coursing through your own body. We want you to see for yourself how quickly it removes pains and aches—how marvelously it cures. We take all the risk.



Relieves These Diseases

Rheumatism, Headache, Backache, Constipation, Kidney Disease, Lumbago, Catarrh, Scalp Diseases, Skin Diseases, Deafness, Weak Eyes, General Debility, Nervousness.

A Vibrating Chair Free

With the White Cross Vibrator you can make a perfect vibrating chair out of any chair. A chair which will give you the same results as the kind used in the biggest hospitals and sanitariums. You cannot do this with any other vibrator in the world. **Swedish Movement** right in your own home. You can give yourself the very same treatments for which specialists and sanitariums charge from \$2.00 to \$3.00 each. The nervous, irritable, worn-out man or woman will obtain quicker and more permanent benefit from a few minutes each day in the vibrating chair than from hundreds of dollars worth of medicines.

This Valuable Book, "Health and Beauty," NOW SENT FREE

This wonderful book describes the human body in health and disease so plainly and clearly that anyone can understand. It tells how to get healthy and beautiful and how to keep so. This book tells you what vibration will do for you and how you can get the **White Cross Electric Vibrator** sent right to your home for an actual free trial.



SIGN this COUPON

Get this valuable free book at once. No matter how healthy you may be now, the time will come when you will need this book badly. It may save your life or the life of some of your loved ones. Learn all about our offer—the most astounding and generous offer ever made. Don't wait. Don't delay. Sign the coupon NOW!

LINDSTROM SMITH CO.,
253 LaSalle Street,
Dept. 3008,
CHICAGO,
ILL.

LINDSTROM SMITH CO.,
253 LaSalle St.,
Dept 3008,
CHICAGO, ILL.

Without obligations on the please send me free your special reduced price offer, free Book on Health and Beauty, treatment of disease by vibration and electricity, and complete catalog.

Name

Address

SIGN THIS COUPON AND MAIL TODAY



ANNETTE KELLERMAN

Is Teaching Women How to Acquire Health and a Beautiful Figure

Nearly every woman in this country knows Miss Kellerman by reputation—thousands have seen her perform at leading vaudevilles.

And it is doubtful if there is a single woman who has either seen or heard of Miss Kellerman who has failed to envy her her superb health and wonderful development.

This very fact is responsible for the **Annette Kellerman Correspondence School of Health and Physical Development.**

Miss Kellerman contends that any woman can possess good health and comeliness of form provided that she will take the necessary steps to acquire them. And so she has organized a school to teach this very thing—to make it possible for every woman in America to know how to secure a graceful, well-proportioned figure and abundant health.

Miss Kellerman teaches, in a series of ten practical lessons, the methods which have enabled her to become the most physically perfect woman in the world.

The Lessons are plain, simple, and direct, and can be practised by any woman no matter what her condition in life is, or what the circumstances that surround her. They are equally beneficial to the schoolgirl, the business woman, the matron, or the grandmother.



Annette Kellerman

Miss Kellerman's course makes for endurance, physical development, and beauty—the three qualities most needed and desired by women.

PERSONAL ATTENTION IS GIVEN TO ALL COMMUNICATIONS BY MISS KELLERMAN HERSELF. THE TERMS ARE WITHIN REACH OF ALL.

In order that you may know just what Miss Kellerman accomplishes in her course of lessons, she has prepared a little illustrated booklet which she wants to send you, free of all cost, provided you are interested in bettering your health or personal appearance. A POSTAL-CARD WILL BRING IT.

The Annette Kellerman Health and Physical Development School of Correspondence for Women
1133 Broadway, 606B, New York City

MUSIC LESSONS FREE

"Wish I had known of you before."

Booklet and free tuition offer sent free. Address

U. S. SCHOOL OF MUSIC, Box 339, 225 Fifth Ave., New York City.

in your own Home for Piano, Organ, Violin, Guitar, Banjo, Cornet, Sight Singing, or Mandolin. One lesson weekly. Beginners or advanced pupils. Your only expense is for postage and music, which averages about 2 cents a day. Established 1898. Thousands of people all over the world write,

Deep Breathing vs. Physical Exercise

The principal aim of every system of physical exercise is to strengthen the vital organism—the heart, lungs, stomach, liver, etc.—but few have the time and vital force to accomplish this result in such an indirect manner. My system of

BREATHING GYMNASTICS

directly exercises, kneads and massages the vital organs, thus enabling the weakest woman to derive as much benefit from exercise as the strongest man. It strikes at the seat of all weakness and disease—the BLOOD.

Fifteen minutes devoted daily to proper breathing gymnastics will make one immune to colds, catarrh, pneumonia, and consumption, and build up a robust physique.

Send for my 32 page booklet, "Breathing for Health, Strength, and Endurance." It's free.

I also publish a 64-page book on the subject, "Lung and Muscle Culture." It is fully illustrated, showing the correct and incorrect method of breathing; also contains hundreds of other valuable hints on breathing and exercise. Price 10 cents. Address

PAUL VON BOECKMANN, Respiratory Specialist

1411 Terminal Bldg., 103 Park Ave., New York



TIZ—For Sore Feet

Cures Tired, Aching, Swollen, Smelling, Sweaty Feet, Corns, Callouses and Bunions, Ingrowing Nails, Frostbites and Chilblains.

At last! here is instant relief and a lasting, permanent remedy for sore feet. No matter what ails your feet or what under the sun you've tried without getting relief, just use TIZ.

Powders and other remedies merely clog up the pores. TIZ cleans them out and keeps them clean. It works right off. You will feel better the very first time it's used. Use it a week and you can forget you ever had sore feet. **Smaller shoes can be worn** because TIZ puts and keeps your feet in perfect condition. Send 25c in stamps for box or buy of your druggist. Money-back guarantee.

W L DODGE & CO., 414 Dodge Bldg., CHICAGO



TOBACCO KILLS!

Thousands die premature deaths as a result of the insidious habit of tobacco using. Read the pamphlet, "Tobacco Using," by Dr. G. H. Heald, a clear, convincing treatise, which compels consideration from the most inveterate user. Single copy, post-paid to any address, for 4 cts. in stamps; 10 for 15 cts.

Review and Herald Pub. Assn.
Takoma Park, Washington, D. C.

Our New Illustrated Folder



shows at a glance what the FARLIN VENTILATED WINDOW TENT is, and what it does.

There is no other window tent as good. In point of convenience and adjustability the FARLIN tent is away ahead of anything ever before invented. Original adjustments on which patents are now pending, make it entirely different from any other.

This tent is sold under a positive guaranty. Send it back any time within ten days after you begin using it, and your money will be refunded. *No tents returned yet.*

Send for the new illustrated folder. *It's free.*

Battle Creek Tent and Awning Works

2 Spring Street,

Battle Creek, Mich.

Get Back to Nature!



The best physicians will tell you that
The Natural Diet is the Only Diet

for mankind. Send for our booklet. It will tell you all about it.

We will send you, postage prepaid, our Guide Book, also samples and price-list of our *Nuts and Nut Preparations*, upon receipt of 25 cents; or samples of all three kinds of "Corona Health Food," for 15 cents.

For \$1.00 we will send you the following combination: 1-4 lb. each Pecans, Walnuts, Filberts, and Pignolias; 1-2 lb. Nut Marmalade, 1-2 lb. Nut Butter; express prepaid.

The KOERBER NUT MEAT CO.
Dept. L. 169 Reade St., New York City

BE ALIVE

All live people who are ruptured should read this ad. carefully. There is only one *really* scientific truss on the market. Other so-called "trusses" are mere clamps. Our *Huston Automatic Truss* applies slight pressure to the *hernia only*, allowing perfect freedom of motion to the body.

Farmers wear it successfully while working in the harvest-field; trapeze performers while giving exhibitions. Surely YOU also could wear it with comfort and satisfaction. You will do yourself an injustice unless you give a fair trial to our

Huston Automatic Truss



HUSTON BROS Chicago

FRONT VIEW

Patented
Sept. 7, 1897

Of course we can not convince you of the truthfulness of our claims unless you are willing to test them. Are you willing to give us a chance? Will you write to us to-day?

Easily adjusted. May be worn night and day. Weighs only a few ounces. Sold on a positive guarantee. Price, \$5.50.

Send size around body in line with rupture. Once adjusted, this truss can not be displaced by any motion of the body. Correspondence solicited.

A Few Good Agents Wanted

HUSTON BROTHERS

Makers of Trusses, Abdominal Supporters, Deformity Apparatus, etc.
35 Randolph Street, CHICAGO, ILL.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

GET THIS \$1200.00 NEXT MONTH!

WHAT A BLESSING TO ALWAYS HAVE MONEY IN ABUNDANCE.

You can, it's easy. **Hundreds Getting Rich the "New Way."** Said to be world's greatest and surest money maker. One man actually made **\$1281.00 IN ONE MONTH, \$51.50 IN 15 MINUTES, \$800 IN 8 DAYS.** Not a fairy tale, fake or humbug, but absolutely true—sworn statement. New, wonderful discovery. Causing great enthusiasm. Readers, listen, see, read how this invention has made, is making thousands of dollars for others:

Does \$1200 Monthly "My sales \$1281.00 one month, \$1118.00 another. Best thing ever sold. Not one complaint from 2000 customers." **SWORN STATEMENT BY INTEREST YOU?** M. G. STONEMAN, MONT.

"**SOLD \$2212.00 IN 2 WEEKS.** Not one dissatisfied user," writes Korstad & Mercer, Minn. "My sales **\$1680.00 IN 73 DAYS,**" writes C. D. Rasp, Wis. "Canvassed **60 PEOPLE—GOT 55 ORDERS.** Sold \$320.00 in 16 days," writes W. H. Reese, Pa. "Enclosed order for **\$115.00 FIRST DAY'S WORK.** Best thing I ever worked," writes L. H. Langley, N. D. "Everybody thinks apparatus finest thing. Sold **15 one afternoon,**" writes Miss Eva Edwards, Nev., after ordering 73. "I averaged **\$164.25 WEEKLY** for three months, undoubtedly best line on market," writes J. W. Beem, Kas. "Finest seller I ever saw, catches the eye. Don't want anything better. **SELL 8 OUT OF 10 HOUSES,**" writes Wm. Maroney, Okla. "A man that can't sell your outfit couldn't sell bread in a famine, send 48 more," writes J. B. Cashman, Minn. "I make **\$100 DAILY,**" writes J. Sevegne, N. Y.

HUNDREDS, MEN AND WOMEN TELL OF WONDERFUL SUCCESS equipping town and farm homes with Allen's Portable Bath Apparatus. **50,000** already sold. Acknowledged best thing ever happened for humanity. Nothing like it. Gives every home a modern bath room for only **\$5.00.** Think of it! Costs nothing to operate. Used wherever water in any form exists. So energizes water that 1 gallon does more than tub full old way. Gives cleansing, friction, massage, shower baths all together or separately. Cleanses almost automatically. Makes bathing 5 minute operation. Only clean, running water touches body—no immersion. No tubs, buckets, bowls, wash-rags or sponges—no plumbing. Insures cleanliness without drudgery—prolongs life—prevents disease. Small but mighty—carried in grip. Endorsed by famous Battle Creek sanitarium and other celebrated authorities. Most popular, easiest, quickest, surest selling household article going.

Let us give you an appointment worth \$40.00 to \$60.00 weekly freedom from drudgery, long hours, wage earning, bossism, job hunting. We want more **AGENTS, SALESMEN, MANAGERS,** either sex, at home or traveling, all or spare time to fill orders, appoint, supply, control sub-agents. Hustlers getting rich. **EXPERIENCE UNNECESSARY.** Simply supply enormous demand already made—that's all. Every customer anxious to boost your business. No easier, quicker, certain way to make money. Exciting business—big profits—popular goods, guaranteed by an old reliable **\$50,000.00 house—no competition—exclusive territory—co-operation and assistance.** **CREDIT GIVEN—SEND NO MONEY**—only your name and address on a postal card today for world's greatest agency offer, valuable booklets, credit plan, proofs of phenomenal success—**ALL FREE, COSTS NOTHING TO INVESTIGATE. MEET US THAT FAR ANYHOW.**

THE ALLEN MFG. CO., 1894 ALLEN BLDG., TOLEDO OHIO.



"SEE IT ENERGIZE."

Sec. view Comb, Portable and Bathroom Outfit.

Stop that Cold

For it is the Forerunner of Consumption



The Perfection Pocket Inhaler is ever ready for use. It is effective in the treatment of Asthma, Hay Fever, and acute attacks of Colds, Coughs, Catarrh, both moist and dry, Bronchitis, soreness in the Chest, and affections of Nose, Throat, Lungs, and Ears.



Special formulas of medicine for treating the above-named maladies.

50 cts. per bottle, post-paid. Can be used in other inhalers, vaporizers, and nebulizers.

Enclose money-order for \$1, and we will forward to you by mail, post-paid, one inhaler, with medicine for six weeks' treatment. When ordering medicine, specify the disease you want it for. (Mention Life and Health.)

If you are not satisfied with the Inhaler after ten days' trial, return it in good condition, and we will return your money.

BATTLE CREEK INHALER CO.

R. F. D. No. 6

Bellevue, Mich.



Midget Massage Vibrator

Here is the most scientific massage machine ever placed before the American people, and the price is within the reach of all.

We guarantee every machine to last a life time, and we want every reader of this magazine to act as our agent. Now, as an inducement for you to do so, we will send you one regular \$5.00 machine for just half price, or, we will send you three for \$6.00. Don't let this opportunity pass. This is a straight business proposition to you. **ORDER TO-DAY.**

RADIODESCENT LAMP CO.

305 South, - KALAMAZOO, MICH.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

Health and Increased Strength



Follow from a course of **Physical Culture**. I trained **Rolandow**, the only man **Sandow** refused to meet in competition. All other professional strong men were trained along my lines. My system is the only one which guarantees results. I have a special mail course in **Physical Culture** from which you can acquire a muscular and athletic form exhibiting the finest proportions of manly beauty.

Also trained through my mail course.

I have the best-equipped gymnasium in New York. Classes are now forming at moderate terms. Individual instruction.

I GUARANTEE

to reduce your weight from 15 to 20 pounds a month, where necessary, by a special course of treatment. Send waist measurement.

SPECIAL MAIL COURSE

I have a perfect course of Physical Instruction by mail, which is the result of many years' personal experience in training. The course which I send is the identical one used in training **Rolandow**, and which made him the strongest man in the world to-day.

My Guarantee { With my system of instruction I guarantee to increase your weight, double your strength, and perfect your muscular development.

My course is an individual one, suitable to each pupil's requirements. I have never had a dissatisfied pupil. Enclose two-cent stamp to learn full particulars.

PROF. H. W. TITUS

Titus Building, 156 East E 23d St., New York

HOTEL CUMBERLAND NEW YORK

BROADWAY AT 54TH STREET

Near 50th St. Subway Station, 53d St. Elevated and all Surface Lines.

Near Depots, Shops and Central Park

New and Fireproof

Strictly First Class Rates Reasonable

\$2.50 With Bath, and Up

All Hardwood Floors and Oriental Rugs.

Ten Minutes' Walk to 20 Theaters.

Excellent Restaurant; Prices Moderate.

Send for Booklet.

HARRY P. STIMSON, Formerly with Hotel Imperial
R. J. BINGHAM, Formerly with Hotel Woodward

Only New York Hotel window-screened throughout.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."



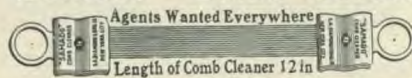
American women are just finding out that they may serve on their tables **ANY DAY IN THE YEAR** a tropical fruit in its fullest perfection—

Hawaiian Pineapple

Hawaii is the world's pineapple garden. The fruit grown there has a size, tenderness and flavor which cannot be duplicated elsewhere. This luscious pineapple is canned in Hawaii by the most approved sanitary methods and sent to our home tables in its full deliciousness. Send for booklet.

HAWAIIAN PINEAPPLE GROWERS' ASSOCIATION
Tribune Building, New York

Buy Direct from Manufacturers "Samado" Comb Cleaner



The "SAMADO" Comb Cleaner is a household necessity. Saves your hair, prevents dandruff and baldness. Made of polished steel, the threads rake out every particle of dirt and dandruff in the comb, keeping it clean, sanitary, and germ-free. We will send one **Sample outfit post-paid for 25 cents**. Agents find it big seller. Write us for particulars and catalogue of our celebrated "**Triplex**" Ladies' Hand Bag (4 bags in one) and other new patented articles.

S. O. DIAMOND & BRO. CO., MFRS.
35 West 21st Street, - - - New York, N. Y.



The ALLEN Health Tent Ventilation EQUALS Out-of-Doors

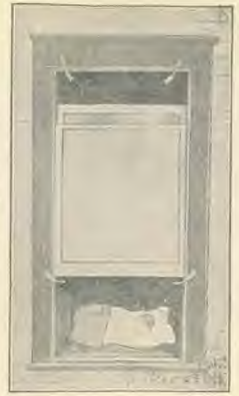
It takes away none of the comforts and privacy of the bedroom and receives ventilation from both the top and bottom of the window. It furnishes an improved method of sleep and rest throughout all seasons and all sorts of weather. Much proofs at hand, and a trial will convince any one of this "BETTER WAY" of receiving all the benefits of

FRESH AIR IN MOTION

for sick or well. Our five-years' experience in indoor tent construction should count as a factor in the purchase of a tent. **WRITE** for FREE literature, giving fullest descriptions, prices, etc.

INDOOR WINDOW TENT COMPANY
1307 So. Adams St., Peoria, Ill.

Sold also through the Sanitary Department of the Committee of One Hundred on National Health, Title Guarantee & Trust Co., 176 Broadway, New York City.



AMONG THE MOUNTAINS Of Tennessee

THE GRAYSVILLE SANITARIUM

Healthful climate, delightful surroundings the year round, bracing mountain air and pure spring water. Unusual natural advantages are combined with a thorough health régime under the oversight of experienced physicians and attendants.

Treatments include Electricity in all forms, Massage, Swedish Movements, Hydriatic treatments, and the general line of Sanitarium measures.

Surgery when required.

Regulated dietary. Send for catalogue.

Graysville Sanitarium, - Graysville, Tenn.



NASHVILLE S. D. A. SANITARIUM, Nashville Tenn.

Phone Main 1826

Most beautifully situated in the country, only three miles from the center of the "Athens of the South."

The best-equipped sanitarium of its kind in the Southern States.

All modern conveniences necessary for the care and treatment of medical, surgical, and obstetrical cases.

Special attention given to the use of physiological therapeutics, including all forms of Hydrotherapy, Electricity, Massage, Mechanical and Manual Swedish Movements, Physical Culture, and carefully regulated dietary.

Patients are trained back to health by nature's simplest and most effectual measures, and then taught how to keep well.

Write for further information.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

Washington S. D. A. Sanitarium



A most attractive health resort, beautiful for situation, located only seven miles from the nation's Capital at an elevation of over 300 feet. The climate is excellent the year round. No mosquitos or other pests. Open-air life may be enjoyed without molestation. The well-known sanitarium methods employed in restoring the sick to health. Baths, Massage, Electricity, Diets, etc.

Address

WASHINGTON SANITARIUM

Phone 127 Takoma

Takoma Park, Washington, D. C.

THE FLORIDA (S. D. A.) SANITARIUM



In the Heart of the State of Florida, which State is becoming so popular as a winter tourist resort, is located the above Sanitarium, on the main line of the Atlantic Coast Line Railway, $\frac{1}{2}$ mile from station, and two miles from the beautiful, growing tourist center of Orlando. At this institution is combined semitropical climate, fruits, and scenery, hygienic dietary, the same system of rational treatment as employed by the Battle Creek (Mich.) Sanitarium, and bathing and basking in the large lake on the premises. Experienced physicians and competent nurses are constantly in attendance. No offensive or contagious cases received. Rates \$10 to \$20 per week. Write for descriptive booklet. Address,

THE FLORIDA SANITARIUM, Drawer 28, Orlando, Florida.

When you write to our advertisers, please say: "I saw your ad. in LIFE AND HEALTH."

The GLENDALE SANITARIUM

S. D. A.



Glendale, Los Angeles, Cal.

City Offices, Broadway Central Bldg., Los Angeles

Beautifully situated at GLENDALE, a few minutes' ride by electric cars from the heart of LOS ANGELES. The buildings are modern and fitted with every convenience. The climate of Glendale is delightful all the year round. Here, days of cloudless skies come and go; summer glides into winter without perceptible effort. The startling changes, so dreaded in the East, are absent.

THE PLEASANT WINTER is heralded by beautiful green on hillside and plain; flowers abound unharmed; even delicate hot-house plants of the East, burdened with blossoms, abound in the open. The methods as to diet and treatment are the same as those which gave Battle Creek world-wide fame. Write for illustrated Souvenir E.

PARADISE VALLEY SANITARIUM

S. D. A.

National City, California

A well-equipped, well-regulated, medical and surgical establishment within easy access of San Diego, conducted upon rational principles and enjoying an ideal climate all the year round. This is just the place for the invalid, convalescent, and overworked, or any contemplating spending a week, month, or season in a true health resort. Two hundred and fifty clear days in the year. Write for illustrated catalogue, P. 12, containing rates and full information.



LOMA LINDA SANITARIUM

S. D. A.

Loma Linda, California

Loma Linda are words taken from the tongue of the people who first discovered and settled in this valley many years ago — the Spaniards — and mean "Hill Beautiful." It is an imposing elevation near the center of the far-famed San Bernardino Valley, rising about one hundred and fifty feet above the surrounding valley, which gives an altitude of some thirteen hundred feet. It is sixty-two miles east of Los Angeles on the main line of the Southern Pacific Railroad, four miles west of Redlands, and five miles from San Bernardino.

From October to June, Loma Linda is conceded by the most famous travelers of Europe and America to have one of the most delightful climates on the globe.

Send for our descriptive pamphlet, giving twelve beautiful colored views.

