

LIFE & HEALTH

MARCH NUMBER



Price 10 Cents.



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.





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.

YOUR AD. HERE

Would Cost You

\$9.50

If that is too little, use a whole page at \$35. If too much, take an inch at \$2.75.

This issue of LIFE AND HEALTH is being read by nearly 200,000 progressive, cultured people who pay cash for what they buy.

That's the reason LIFE AND HEALTH brings results.

For further particulars address,

R. O. Eastman, Adv. Mgr.

Battle Creek,
Michigan

or

Washington,
D. C.

School of Correspondence



For Normal
Figures



Adjustable Expansion
Health Waist for
Stout Women

Learn outer and under garment-cutting at Home! *Genuine Tailor System*, easily mastered. Patterns cut to order. The healthful, adjustable, expansion waist and abdominal supporter combined holds up and in place *relaxed organs*, increases breathing capacity, gives a free, graceful carriage—three essentials to health and beauty. Send your order at once. Write for full particulars. Agents wanted.

Healthful Garment Co.

Takoma Park

Washington, D. C.

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

Important Announcement

Good News to all Students and Lovers of Nature and to all Interested in Education.

The Establishment of Arcadia on Unique Lines as a

GREAT NATURE STUDY INSTITUTION

(Through the aid of a philanthropist whose name is withheld by request.)

Arcadia is to be a "village" of portable buildings devoted to the various phases of natural science. The buildings are to be arranged in the form of a court covering more than a half acre of ground. There is to be an astronomical observatory, "Home" of The Agassiz Association, biological laboratories, vivaria, aquaria, Clearing House (for circulating specimens), pet houses, insectary, photograph gallery, experimental rooms, offices, lecture hall, etc. Within the court made by the surrounding buildings are to be a garden and plant beds for experimental purposes.

In brief, it is to be an epitome of the essential features of zoological park, biological laboratories and experimental horticultural grounds.

If the experiment proves a success upon two years' trial, it is promised that the entire equipment will be rebuilt in larger fireproof buildings (with more extended equipments for study and experiment). The tests of success are the co-operation and interest of naturalists of all ages in all parts of the world. Full particulars in the January number of **The Guide to Nature**, Stamford, Connecticut. Single number, 15c. Subscription for one year, \$1.50.

Edward F. Bigelow, Director of Arcadia, Stamford, Connecticut

In April **LIFE AND HEALTH** a most important article on the care of the mouth and teeth of children, by one who knows. Do not fail to read it.

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 transpiring 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

NATURO

The Closet with the Slant



For the first time considers the Water Closet as more than a convenience for stooling and meets every requirement of physiology and hygiene.

Prof. W. H. Morse says: "The ordinary closet is responsible for all too much of the mischief of ill-

health. Its use defeats some of the best plans and methods of medical treatment."

Dr. S. H. Linn writes: "It is a curious and misleading fact that the discomforts arising from constipation and rectal diseases are often most marked in other parts of the body—sympathetically complaining for the rectum."

The NATURO costs no more than the old-fashioned article, and is noiseless in operation.

Free descriptive books and testimonials on request.

The C. H. Muckenhirn Closet Company,
Detroit, Michigan

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.

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. }
D. H. KRESS, M. D. } - Associate Editors

Subscription Price \$1.00 a year
To Foreign Countries \$1.25 "

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, 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.

If questions are sent to this Office in connection with other matter, they should be written on a separate sheet addressed to the editor; otherwise they may be overlooked. The editor does not look over the business correspondence.

All questions must be accompanied by return postage. If the reply is not worth that much to the inquirer, it is not of sufficient value to take up our time in replying. We are glad to answer all reasonable questions of subscribers, but we do not wish to pay two cents each time for the privilege of doing so.

✽

The April Number

THE pure food question is now a live issue. The law is doing much to protect consumers. Labels are more honest than ever before — at least "within the memory of men now living." Some producers are doing their best to circumvent the law. One decision regarding the use of preservatives has threatened to nullify the law. But some of the manufacturers have themselves taken a stand against the use of preservatives, declaring them unnecessary, except as a means of covering up inferiority. Their statement will appear in an article by Paul Pierce.

Dr. Leadsworth will give the second of his instructive series on autointoxication.

When you write to our advertisers, please say,

Dr. Emery will furnish an article on the use of salt, which will be a source of satisfaction to many readers.

An article on the handling of milk, by an eye-witness, may not be very savory reading, but it tells some things every user of dairy products should know.

Dr. Lederer's illustrated article on the care of the mouth of children is most timely and valuable.

✽

Live Agents Wanted

A LARGE corps of salesmen and sales-ladies are already engaged in the sale of this magazine. They uniformly report good success in the work. In fact, for the actual time put in, their profits per hour are larger than those of salesmen of other literature.

Whatever their race or creed, all men and women are intensely interested in their own physical welfare,—the proper treatment of their bodies. This fact, of itself, makes easy the sale of LIFE AND HEALTH.

We are personally acquainted with one bashful girl in the far-off State of California who sold in one single day, in the city of San Jose, two hundred thirty copies of this magazine. And they were all sold on the street. This is, so far as we know, the largest day's sale of any of our ten-cent magazines.

If you are unknown to the publishers, kindly send satisfactory references with your request for an agent's outfit. For confidential terms to salesmen, and commission on yearly subscriptions, apply to Department of Circulation, Life and Health, Takoma Park, Washington, D. C.

Ethan A. Brown, Nut Food Specialist

Des Moines, Iowa

Who has made Nut and Cereal foods for "Our People" for years, has lately developed several *new ones* of exceptional merit. "Ban-nana Nuts" and "Ban-nana Cereal," the latter to be used as "tea" or "coffee." Harmless, Nutritious, Delicious. Samples cheerfully sent free. 8 gallons Wesson's Cooking Oil, \$5.75. 51 gallons, 55 cents a gallon. No. 1 Spanish shelled peanuts, :30 pound bag, 7½ cents per pound.

"I saw your 'ad.' in LIFE AND HEALTH."

CONTENTS

GENERAL ARTICLES

Alcohol and the Human Body, <i>A. J. Hetherington, M. D.</i>	135
Self-Poisoning — An Interesting Case, <i>J. R. Leadsworth, B. S., M. D.</i> ..	138
Cancer: Its Cause and Rational Treatment, <i>D. H. Kress, M. D.</i>	140
Solid Shortenings, <i>O. C. Godsmark, D. D. S., M. D.</i>	144
Counting the Cost, <i>J. E. Froom, M. D.</i>	146
Cooking Lesson, No. 4, Soups, <i>Geo. E. Cornforth</i>	148
Outer Garments for Stopt Women, <i>Lauretta Kress, M. D.</i>	151

RATIONAL TREATMENT IN THE HOME

Home Treatments for Common Diseases, No. 1, <i>W. A. George, M. D.</i> ..	153
Therapeutic Hints, <i>G. H. Heald, M. D.</i>	155

HOME ACRE

Planning a Home, <i>Mrs. Stella Ridgway</i>	157
---	-----

CURRENT COMMENT

Cancer a Dietetic Disease — The Effects of Light Alcoholic Liquors on German Schoolchildren — School Gardens — "Good Living" — Value of Flavors.	158
--	-----

ABSTRACTS

Some Results of Inefficient Care of the Teeth — Difficulties of Early Recognition of Tuberculosis, and Suggestions as to the Remedy — Tuberculosis and the Child.	163
---	-----

THE MEDICAL FORUM

Physicians and the Anti-Rum Crusade — Physicians and the Emmanuel Movement — Weight and Mortality — Cancer.	168
---	-----

THE MEDICAL MISSIONARY AT WORK

Medical Missionary Work in India — From Oregon to Korea — Argentina — A Drunkard Reclaimed — A Village Dispensary in Palestine.	172
---	-----

EDITORIAL

Catastrophies — Mental Astigmatism — Faulty Education and Insanity — Absurdity in Medical Research.	178
---	-----

CHATS WITH OUR READERS

	182
--	-----

NEWS NOTES

	184
--	-----

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, Tutulla, 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.





Copyright, Underwood, New York City

TAORMINA

Ruins of Taormina, Sicily. Mount Ætna in the distance



"Something better is the law of all true living"

Vol. XXIV Takoma Park Station, Washington, D. C., March, 1909 No. 3

Alcohol and the Human Body

A. J. Heltherington, M. D.

Superintendent Graysville (Tenn.) Sanitarium

ALCOHOL is not a food, but a product of decay. When yeast-cells find lodgment in substances containing sugar, and the proper influences of heat and moisture are present, fermentation results, and alcohol is produced. Alcohol is an anti-septic, and will therefore destroy germs and preserve meat. But this is no argument for its use to preserve the life of human beings. There is a vast difference between living and dead flesh. If a plant is placed in a vessel of water, it may thrive and grow; but put just a little alcohol in the water, and the plant will soon die. An ameba shrivels up and dies when surrounded with a very dilute solution of alcohol. These are proofs that alcohol is a life destroyer. Alcohol is not a preserver of human life; instead, it shrivels

up the vital protoplasm of all the tissues; it opens the gates for germs to enter the body and establishes disease; in other words, it invariably operates for destruction and death.

ALCOHOL

- Even when dilute, paralyzes cell activity.
- Cripples the oxygen-carriers of the body — the red blood-cells.
- Benumbs the body defenders — the white cells.
- (Alcoholics go quickly when attacked with germ diseases.)
- Diminishes all the vital processes.
- Even in small doses, gradually hardens the liver and renders it useless.
- Causes degeneration of the blood-vessels, and hastens old age.
- Causes fatty degeneration of the muscles and heart.
- The use of stimulating beverages, hot foods, and irritating dishes in the home may create an appetite for alcohol.

There is but one source from which the body derives its energy. This comes from the union of food elements with oxygen in the tissues. And it is only through the medium of the circulation that this wonderful energizing power is made possible. How important, then, that a perfect circulation be maintained in order to preserve the body

functions in a high degree of health. Alcohol cripples the red blood-corpuscles, and deprives them of much of their oxygen-carrying power. It benumbs the wonderful white blood-cells, and causes them to shrivel up and lose the power to do their work. They can not attack

and destroy germs; they can not repair broken bones; they can not heal the injuries. This explains why those who use liquor die so quickly when attacked with pneumonia or other germ diseases, and why they do not recover after surgical operations nearly so rapidly as do total abstainers. It also makes plain why the broken bones of the toper are so slowly repaired.

When alcohol enters the system, a sensation of numbness and burning is experienced. It works havoc in the stomach. It irritates the glands, and retards the manufacture of digestive juices. It diminishes the muscular contraction of the stomach walls on the food. Some of the alcohol is carried through the portal vein to the liver, where it uses up the oxygen needed by the liver cells for their vital operations. The liver eventually shrivels up and hardens. Thus the condition called hobnailed liver is produced. The paralysis of the vasoconstrictor nerves allows the blood-vessels of the stomach to dilate, and the mucous lining becomes engorged and inflamed. Dyspepsia and cancer of the stomach are common among habitual users of intoxicants. Paralysis of the vasoconstrictor nerves

likewise causes the minute blood-vessels of the nose to dilate, producing the "rum blossom" nose. This same effect is produced in blood-vessels all over the body. It even shows in the eyes. Before long the muscle coat of the arteries changes to fat, and the connective-tissue coat is filled with calcareous or chalky deposits. In this condition they easily rupture under any undue pressure from the blood-stream passing through them.

The albuminous constituent of the muscle fibers is attacked and changed into fat. This is called fatty degeneration. The muscle of the heart itself undergoes this fatty degeneration. Who has not observed that the man who drives the beer wagon is generally very corpulent? He is corpulent, but not strong. Strength is a property of sound muscle-fibers, but not of fat. When the muscles are largely changed to fat, the body has no endurance or strength. It is not uncommon to hear of such persons falling dead very suddenly after running to a



Copyright, 1909, Press Publishing Co., New York

WATER FRONT, MESSINA, SICILY
Showing some effects of the recent earthquake

fire or performing some task requiring an undue amount of strength. Either the fatty heart ruptures as a result of the sudden exertion placed upon it, or a degenerated blood-vessel in the brain breaks, and death from apoplexy is the result.

There is no part of the body that is exempt from the destroying influences of alcohol. Its habitual use causes every organ to lose its activity and usefulness, and slowly but surely it drives life out of the body. Statistics show that users of alcohol do not as a rule live out the allotted life of man.

Laws and legislation to lessen or prevent crime and drunkenness and to limit the sale of intoxicating liquors are well enough; but they do not reach the bottom of the matter. There is another consideration to this question, which is worthy of careful thought. No one becomes a drunkard as a matter of choice. The child is not born with an appetite for liquor. Those who become enslaved to intoxicants, and, under their influence, commit crimes and murders, and finally hang on the gallows or fill drunkards' graves, are, in many instances, filling just the place in life for which they were especially trained and educated while around the home table.

No child would drink such a liquid as coffee, which contains the bitter alkaloid caffeine, unless it were educated to

do so, and influenced by the example of its elders. The nauseating, bitter taste of the alkaloid must be disguised with sugar and milk before the delicate taste of the child will permit the fluid to pass



Copyright, Underwood, New York City

“CHURCH OF THE SOULS IN PURGATORY”

Messina, Sicily. Thousands lost their lives in this city in the earthquake

its lips. Then by degrees the sugar and milk may be diminished until the taste may finally tolerate the clear drug. For a lack of knowledge of these basic fundamental physiologic principles, many a fond and loving parent is placing daily before the developing child flesh foods, tea, coffee, condiments, and spices, all of which combine to undermine health, create abnormal appetite, and stimulate

(Continued on page 167)



Self-Poisoning—An Interesting Case

J. R. Leadsworth, B. S., M. D.

Physician, Loma Linda Sanitarium

IT has not been many years since the subject of auto-intoxication, or self-poisoning, was first agitated as a causative factor in the production of disease. Whether the frequency of its occurrence to-day is due to more scientific methods of diagnosis, or whether it is one of the "new things" peculiar to the twentieth century, we shall not attempt to say, but that retained body excretions are responsible for many serious maladies, we feel assured. A recent case, taken from our records, will illustrate:—

Mr. —, aged seventy-six years, had always been well and strong until six months previously, when he became less active than usual, and one night was suddenly awakened by a sense of weight and pressure in the head, followed by unconsciousness; after this there was loss of speech, with paralysis of one side of the body. With only slight improvement in speech, this condition remained about the same until he was under treatment a few weeks, when improvement began, and continued until scarcely a trace of the former disability was noticed by the patient.

Treatment consisted of electric-light baths, packs, and other eliminative measures. Free water-drinking was encouraged, the bowels were kept active, and every means was taken to keep up a vigorous bodycleaning.

About Thanksgiving this patient went away to visit friends, and quite naturally took advantage of the time and the place to eat more liberally than he had

been permitted to while under treatment. We have frequently sat down to partake of a Thanksgiving repast where the turkey had as much reason to be thankful as the specially invited guests, but with this patient it was not so. Doubtless there were some odds and

Autointoxication is a recently recognized affection.

An attack of apoplexy following "free" living is—

Relieved by diet and eliminative treatment.

A relapse occurs as a result of Thanksgiving indulgence.

The patient's system is found to be saturated with poisons

A thorough eliminative treatment again gives relief.

The lesson.

ends of the feast to be gotten rid of the next day. The patient does not remember, and the other guests were probably sworn not to "peep." But that night he was again visited by a second stroke of paralysis. This attack was fully as severe as the first, affecting the speech and the whole right side, causing complete loss of function.

Within a few days this patient again came under treatment, and it was noticed that the breath was very foul, and

the skin seemed to give off the same offensive odor, indicating that in the few days of surfeiting the whole system had become saturated with body poisons. Vigorous eliminative treatment was again instituted. The bowels were unloaded of large quantities of material in various stages of decomposition. Two or three charcoal tablets were given every hour, to oxidize any deleterious gases that might have escaped elimination. I have found that after using measures to empty thoroughly the alimentary canal, charcoal is one of the most valuable substances known to purify and sweeten it.

By condensing offensive and injurious gases and bringing them into intimate contact with condensed oxygen, charcoal acts as an energetic disinfectant. The fetid products of animal and vegetable

decay are not only gathered in, but are actually burned up. A dead animal may be buried under a thin covering of charcoal (which is capable of absorbing one hundred seventy times its own volume of dry ammonia), and waste away without giving off any offensive odor.

Within twenty-four hours after this vigorous disinfecting process was well under way, our patient was up and around, with speech and reasoning power up to normal, while the arm and leg retained only slight functional loss.

This case illustrates the wonderful recuperative powers with which the Creator has endowed our bodies. How much better would it be to present them a living sacrifice, refusing to partake of things that defile and poison, and thus conserve the body energies for long life and strength of days.



Copyright, Underwood, New York City

These pictures show both sides of the strait of Messina, from Sicily, looking toward Italy. The picture on the left is of Messina harbor and strait, with the Italian coast in the distance. The picture on the right is from "Charybdis to Scylla;" i. e., from Faro Point, Sicily, across the strait to the mainland. The pictures are in approximately the right relation. The most terrific force of the earthquake probably manifested itself under this strait.

Cancer: Its Cause and Rational Treatment

D. H. Kress, M. D.

Superintendent Washington (D. C.) Sanitarium



THE predisposing cause of cancer is probably a vitiated blood stream, resulting from the absorption of highly toxic impurities produced most frequently from the putrefaction of flesh foods and other easily decomposable products in the alimentary canal. Any habit, however, which tends to lower the vitality of the tissue, possibly acts as a predisposing cause. The excessive use of salt, beer, tea, coffee, and tobacco, and the breathing of impure air, may act as contributing causes of the disease. The free use of animal fats and the liberal use of butter or sugar also favor fermentation, and the development of products, which, when absorbed, lower the vitality of the tissues. It has been observed that cancer does not always affect the weakling or the ill-fed. Its victims are among the high livers, the overfed and well-nourished, those who have an abundance of flesh, and appear robust.

Cancer Among Cattle

Dr. S. G. Burkholder, V. G., inspector of meat in the Veterinary College of Chicago, in a paper on the subject of meat inspection, called attention to the frequency with which cancer occurs in the lower animals, and pointed to the probability that this is one of the sources of the increase of the disease among men. In cutting up meat, butchers frequently encounter internal cancerous tumors; these they remove, but the remainder of the carcass is sold to an unsuspecting public. All the flesh of such an animal is diseased, and the

whole body is affected by the poison produced by the parasite. By the use of infected meat the disease may be directly communicated to man, and those who, through improper habits, fill their tissues with impurities, naturally fall victims to it. Cancer parasites may adhere to raw vegetables, and thus gain an entrance into the body, but cancerous meat is probably the chief source of infection.

Cancer in Fish

Cancer has been found in fish. M. Crettiaz, inspector of rivers and forests, at Thonon-Les-Hains, France, a few years ago received a consignment of salmon eggs from Germany. A few months after they were hatched, he found that many of these small fish had a swelling about the gills, which increased till they died of suffocation. In the same tank were trout of French origin, which later developed the same tumors. Dr. Jabonlay, of Lyons, made a microscopic examination, and found that the tumors were of a cancerous nature. Epidemic diseases among fish, resulting in the death of large numbers, are common.

Cancer not Hereditary

When it runs in families, it must not be regarded as a family disease; it can always be traced to bad family habits. It is not the cancer parasite that is transmitted from parents to children, but an inferior organism. Children not only inherit inferior tissue from cancerous parents, but their environment leads them to form the habits which are responsible for the inferior tissue. As a rule,

they eat the same infected food as did the parents; and as a result they are stricken with the same disease.

Women More Liable than Men

Sex is also somewhat concerned in the

Exciting Causes — Injury or Local Irritation

Cancerous growths usually make their appearance at a point that has been subjected to local irritation or injury. Cancer of the lip or mouth is common, but is almost wholly confined to men. It is chiefly caused by the local irritation produced by the pipe, or by the lowered vitality of the mucous membrane, resulting from the continued application of nicotin from the cigar.

Cancer of the breast is wholly confined to women. Stiff corsets may act as an exciting cause by keeping up constant pressure and irritation.

Cancer of the stomach and liver is common among both men and women, and is due to local irritation produced by errors in diet. Pepper, mustard, and pickles, when eaten freely, act as local irritants. The free use of sugar, jellies, greasy foods, and soft, starchy foods, favors fermentation and the formation of products



Copyright, Underwood, New York City

CROWDED STREET IN REGGIO, ITALY

Of a population of some 44,000, nearly all were killed in the recent earthquake. Disastrous earthquakes visited Reggio in B. C. 91, and in A. D. 1783 and 1894

occurrence of cancer. Cancer is almost twice as frequent in women as in men. This is due to the fact that in females the breast and womb are very susceptible to the disease. In about seventy per cent of the cases of cancer in women, the breast or womb is attacked. In men the mouth and stomach are most frequently involved, these two regions being affected in fifty out of every one hundred cases.

which also irritate the mucous membrane. But local irritation acts only as an exciting cause in producing the disease in a subject in whom a predisposition to the disease exists, and in whom the cancer parasites already reside. No matter whether the person is lean or fat, feeble or robust, all that is needed is inferior tissue, local irritation, and the parasite, in order to produce cancer.

Treatment — Surgery Alone Not a Success

Surgery is usually resorted to in cases of cancer. In the removal of superficial cancers the knife, escharotics, or plasters may be employed. The ultimate results

state, and not merely the part in which the disease is manifest; for this reason prolongation of life could hardly be looked for, even though the local growth should be successfully removed, unless the general condition of the patient could at the same time be improved.

Dr. Mayo, in his outline of pathology, wrote: "After amputation of a cancerous breast under the most favorable circumstances, I believe that in ninety-nine cases out of a hundred the disease returns."

Unfortunately, as a rule, those having cancer do not have an early diagnosis. They allow it to develop to an almost incurable stage before calling upon a surgeon, and those who have undergone an operation usually continue the same diet as before the operation. If their previous habits were responsible for the disease, it would be folly to expect eradication of the disease without a reform in those habits. There can be no doubt that



Copyright, Underwood, New York City

CATHEDRAL AND ELEPHANT FOUNTAIN Catania, Sicily, stricken by the earthquake

from these measures are not too promising. Sir James Paget, a most distinguished surgeon, in speaking of operations as a cure for cancer, once said: "I am not aware of a single case of recovery; and as to the influence of an operation in prolonging life, I believe the removal of the local disease makes no material difference in the average duration of life." The entire body of a cancerous subject is in a degenerate

in such cases the removal of the local growth may even intensify the disease. Observing this, Dr. Macfarlin, professor of Medicine in the University of Glasgow, wrote: "The operation never arrests, but uniformly accelerates, the progress of the disease." By a thorough reformation of the habits of life, or by a removal of the predisposing causes of the disease, there is no reason why a recovery may not be expected, even

though the cancer parasite should still be present in the system.

Rational Diet

I am convinced that in order to avoid the occurrence of cancer, or to rid the system of the disease after it exists, it is necessary to abandon flesh as an article of food. Cheese, butter, sugar, and other foods which readily decay or ferment in the alimentary tract, and thus produce irritants, which, when absorbed, tend to give rise to inflammatory processes in the tissues of the body, must be guarded against, since this would but add fuel to the fire. Well-baked breads, corn flakes, puffed rice, zwieback, and unfermented breads may be used. Fresh fruits, as pineapples, grape-fruit, oranges, apples, grapes, peaches, etc., should be freely used. Cooked vegetables readily ferment, and should therefore not be used freely, if at all. Raw vegetables, as celery, lettuce, cabbage, etc., may be used when desired, not because of their nutritive value, but because they aid in keeping the alimentary canal sterile, and prevent the formation of irritants. Ripe olives and olive oil should be substituted for butter and other animal fats. Figs and persimmons may take the place of sugar, if sweets are desired. Salt should be used sparingly, if at all. Indigestible and irritating foods, as pepper, mustard, and

spices, must be given up. The diet outlined, in connection with open-air life, will allay inflammation, and cleanse the tissues from impurities, and thus aid in starving the cancer parasite; for the parasite can thrive only on impure and in-

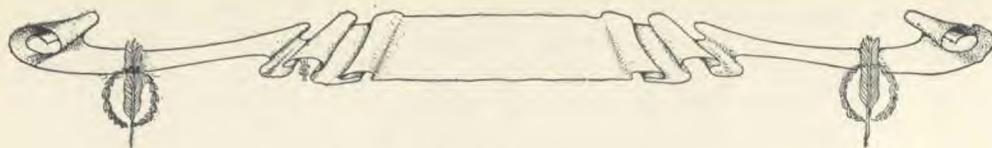


Copyright, Underwood, New York City

FOUNTAIN MOSCHETTI, CANTANIA, SICILY
Railway station in the background

flamed tissue. We have here the reason why Sir James Paget advised a cancer patient "to try to starve herself." If the patient has an abundance of flesh, and many cancer subjects do have, a complete fast for one week, or even two weeks, will be found beneficial. During this time a half glass of pure distilled or soft water should be taken at intervals of one-half hour. At the end of the fast

(Continued on page 181)



Solid Shortenings

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

WITHIN the past few years there have been placed on the market a number of brands of solid shortenings; that is, shortening prepared in so solid a form that it retains its solidity, even in the warmest weather, and also resembles lard, both in appearance and in the manner in which it is used. This makes a very convenient article of commerce, as it can be shipped in cans and buckets, and sold from the stores with little or no loss in handling.

The general impression among consumers is that these shortenings are almost, if not entirely, of vegetable origin, and therefore free from the constant danger of disease attending the use of shortenings prepared from the fat of animals. The sellers of these products seem to have succeeded well in implanting this belief among the people; in fact, the merchants and drummers who handle these goods often affirm, and they are honest in doing so, that such and such a brand of shortening is guaranteed to contain no animal fat.

Desiring to obtain, if possible, just such a shortening,—one made entirely of vegetable fats that would retain its solid form in warm weather, without being

chemically “doctored,”—we made a thorough investigation of the matter. If a vegetable fat could be obtained that was a perfect food fat, free from chemicals, and that would remain solid in the heat of summer, that was what our people wanted.

We learned this: there are but two vegetable fats, known to commerce, that are at all usable as shortening, and will remain solid in warm weather. These

are, first, the stearin derived from the cottonseed, one of the by-products in the manufacture of cottonseed oil, and, second, cocoa-butter. The former, which is a very cheap offal from the cotton industry, does not contain enough of the oil,

or fat, to make it desirable as a food element; in other words, it will not fry well enough or shorten well enough to make it usable in its solid form. Consequently it is purchased in large quantities, mixed with just enough oil, either animal or vegetable, to make it usable in the kitchen, and is then sold at a good price as a purely vegetable, hygienic food fat. There is one special brand, so well known that its name is almost a household word, that we know

“Vegetable” solid shortenings a recent industry.

Such fats would be very desirable.

Only two available vegetable fats solid in warm weather.

Cocoa-butter is too expensive—eight dollars a gallon.

Cottonseed stearin alone is not desirable shortening.

Hence it is mixed with fat from the slaughter-house.

The undesirability of such products.

to be prepared in just this way. It is not poisonous, it may not be especially injurious, but we do know that it is not a proper food fat to put into the system.

The second vegetable fat known to commerce that will remain solid at a temperature of 70° F., or higher, is cocoa-butter. The one thing that has kept this from coming upon our tables as a food fat is the price, which usually runs from five dollars to eight dollars a gallon, so we need have no fears from that direction.

We are frequently asked if the solid shortenings commonly sold upon the markets can be properly considered health foods. We unhesitatingly answer, No. We do not wish to be personal, nor do we wish to enter into the processes of manufacture, or the sources from which the fats are obtained that supply this branch of the foods; but we will say that any known shortening that will remain solid in the summer may well be considered as composed largely of animal fat, no matter what the name indicates, or what is claimed for it. The worst of it is, this great bulk of fat is obtained from the immense slaughter-houses, with which the government had such a time one year ago, and; further, this fat is usually not produced from the most cleanly parts of the more healthy animals.

We trust that none of our readers will understand us to say that a single ounce of the solid shortening now found upon the market was made according to the following formula; but we do know

that tons of it have, in the past, been made and sold in just the manner stated below. This, we are informed by responsible persons who were formerly engaged in that work, was the method then used; how it is made now we are not here to say:—

All the scraps of flesh containing any fat whatever, no matter how far that flesh has progressed in the process of decomposition, or how diseased the animal from which it had been taken, or whether the animal reached the yards dead or alive,—it was all the same. The flesh was placed in immense vats and thoroughly boiled, then strained, washed, and again brought to the boiling-point. While at this temperature, it was allowed to drip slowly into large tanks of ice-water containing a certain per cent of blue vitrol. The result was a beautiful, snowy white, tothsome (?) article, ready to be placed upon the market and sold under the most tempting names.

It is best to know what we are eating, and not trust merely to the name; for even if we do have government inspectors, they do not always attend to their business as they should. Besides, many might reason that the boiling of the scraps, as described above, would destroy the disease germs. Suppose it would— who wants to fill his system with the remains of these germs? Besides, the ptomaines, or poisons secreted by them, are just the same, and we can not expect the best of health if we subsist upon such questionable food products.

Chattanooga, Tenn.





Counting the Cost

J. E. Froom, M. D.

THE liquor traffic, like many other evils, presents enough apparent attractions to influence many persons to engage in it, who, if they counted the entire cost, would not be fascinated by the large and easy returns claimed for the different phases of the traffic.

Even the Opium Business Defended Because of Its Profits

In counting the cost of the opium business, there is something infinitely more weighty to consider than the mere fact that thousands of India's poor people have come to depend entirely on the cultivation of the poppy for their living. The mental, moral, and physical blight which attends the business, presents an expense side to the account which many champions of the opium trade do not or can not comprehend. Thousands of struggling Hindus have their petty earnings so close to their vision that they know nothing of the helpful, honorable existence which can never be theirs while they continue in a business which is bad, and only bad. With their eyes thus blinded, they would doubtless consider any reformer cruel or insane who would recommend abolishing the opium business.

It is not my intention to place a financial statement in parallel columns; for it has already been demonstrated that we do not get adequate returns of all that should be charged to the liquor traffic.

But let us consider the effect of such stimulants upon the health of those who indulge in them.

Alcohol and Pneumonia

Pneumonia is one of the most fatal of acute diseases. Authorities agree that not only does the drinker stand a poor chance to recover from pneumonia, but alcoholism is given as the greatest predisposing cause of pneumonia. The influence of alcohol on the circulation favors

congestion of the lungs, and when congestion has made it very difficult for the heart to force blood through the obstructed lungs, the drinker, even though he be a moderate drinker, has a heart weakened by overstimulation, and as a result thousands of men in the prime

of life are laid in untimely graves.

Epilepsy Caused by Alcohol

In this most distressing disease, from which so few recover, parental intemperance is a well-known hereditary cause. Some authorities report over fifty per cent of their cases due to intemperance.

Insanity

Insanity is increasing at so alarming a rate as to call for the most serious consideration. Great Britain alone reports twenty thousand new cases in one year. The increase of insanity is equally great in the United States. High nervous tension maintained by the desperate use of stimulants is largely responsible for these

Alcoholism is the greatest predisposing cause of pneumonia.

The drinker stands a poor chance to recover from pneumonia.

Alcoholism in parents causes epilepsy in children.

Alcohol is the most common cause of insanity.

Alcohol greatly increases the frequency and mortality of sunstroke.

The alcohol habit renders an attack of yellow fever exceedingly grave.

nervous wrecks. Dr. Clouston's book on mental diseases says that "alcohol is the most common known cause of insanity."

Sunstroke

It would be no more than fair, in reporting the many cases of sunstroke, to give as the true cause, "the excessive use of cold drinks which were really hot." These drinks disturb the circulation, induce congestion of the brain, and interfere with the normal radiation of body heat.

Yellow Fever

During the epidemic of yellow fever in the South, when called to see new cases, one of the first questions usually asked by the physician was, "Is the patient temperate in his habits?" If so, he had a better chance of recovery than statistics would indicate. Whereas, a patient with a record for using intoxicants, was usually found without vital force sufficient to help him through the crisis.

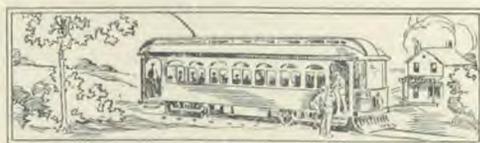
The list of such diseases could be extended further, but these few can serve well to illustrate the facts. These considerations alone would seem more than enough to deter any one from encouraging a business which is sure to work ruin with its devotees; but if weightier reasons are needed, I wish that the sufferings of undemonstrative women, the wives, daughters, and mothers of drinking men, and the condition under which thousands of their children are born and spend their early years, might pass in review before those who think the liquor

traffic should be defended. Think of the drunkard's wife trying to teach morality in her family. Can you imagine how she can lead her group of small children to respect father when, from the time their little eyes and ears began to receive impressions, father's wakeful hours at home have been marked by rudeness, cursings, threats, and other unspeakable things? Such a father may be a good fellow among his associates, but if so, the more sure is his family to be submitted to brutality when he tardily arrives at home.

Prenatal Influence Upon Children

"Every child has a right to be well born," but think of the prenatal influence upon children conceived under such conditions. They can not be given a glad welcome into the world. Like Guiteau, the murderer of President Garfield, who survived his mother's unsuccessful attempts to dispose of him before he was born, they are born unwanted, resentful, and vicious.

Are we really counting the cost when we talk much about revenue, when we point complacently to our public buildings, our reform schools, asylums, houses of correction, and other agencies for controlling evil, when most of our cities contain large and densely populated areas that are every bit as dangerous as would be schools of anarchy? These districts produce swarms of children as likely to reach the criminal stage as the waters of Niagara are to reach the whirlpool.





Cooking Lessons — No. 4

George E. Cornforth



Soups

WHEN soup is spoken of, a preparation made from meat and bones is usually thought of, but we wish to tell about soups which are not made from meat, and also to show why such soups are superior to meat soups.

Contrary to the prevailing idea, meat soups contain very little nourishment. For the sake of comparison, we will give the food value of a few liquid foods, the figures being based upon tables of food values issued by the United States government: —

	Food units per ounce
Beef soup	8.0
Beef juice	7.5
Milk	20.6
Pea soup	25.9
Bean soup	25.1
Apples	18.4

Pea soup and bean soup, having this nutritive value, are made from peas or beans and water, one pound of peas or beans making two quarts of soup.

Thus it will be seen that all common liquid foods are more nutritious than meat soups, broths, or extracts. Even apples, which we think are valuable mostly for their flavor, and not for their nourishing qualities, are more than twice as nutritious as meat soup. Yes, even apple juice, which we commonly think of as merely flavored water, is more nutritious than beef tea.

But there are reasons, other than their greater nutritive value, why soups made from vegetable foods are superior to meat stock soups.

Every time an animal contracts a muscle, waste products are produced in its

body. These waste products are always in the tissues, in the process of elimination. They are in the flesh after the animal is killed, and these substances, which would have been carried off by the excretory organs if the animal had lived long enough, are dissolved in the water in making meat soups. The fiber is the nutritious part of the meat, and very little of that can be dissolved in water by boiling. After soup or broth has been made from meat, the meat remains very nearly as nutritious as it was before the soup was made from it. It has simply lost some of its flavor, and this flavor is due to the waste products in the meat. When we eat such soups, we are taking into our bodies the very substances which our bodies are constantly trying to get rid of.

The exact opposite of this is true of vegetable soups, as we shall see. These facts may explain the superior powers of endurance possessed by vegetarians, which is being proved in many ways. Fatigue is caused by the temporary accumulation of poisons in the system; and if the system has to get rid only of the poisons produced within itself, it will not become fatigued as soon as when it must also eliminate poisons taken in from external sources.

There is a class of food substances which we have not mentioned thus far — the mineral elements; and while their value to the body can not be measured in food units, they are just as necessary as the three food elements which have been mentioned. They are necessary for the

building of bones and nerves; and the mineral salts found in vegetables—underground vegetables, and especially green vegetables—are the substances which keep the blood alkaline. Vegetables, being largely composed of cellulose, or woody fiber, and of low nutritive value in starches, fats, and carbohydrates, owe their value as foods largely to the minerals they contain.

When the blood becomes acid by the accumulation of waste products in the body, the power to fight disease germs is lessened; but when the blood is alkaline, it is best able to do these two things, and the salts contained in vegetables are,

in the body. This kind of vegetable broth may be made as follows:—

Vegetable Broth

- 1 pint finely chopped celery
- 1 pint finely chopped carrots
- $\frac{1}{2}$ pint finely chopped turnips
- $\frac{1}{2}$ pint finely chopped onions
- $\frac{1}{2}$ pint tomatoes
- 4 sprigs parsley
- $1\frac{1}{4}$ quarts cold water

Put the vegetables to cook in cold water, and heat them gradually, till just below the boiling-point, but do not boil.

Keep the vegetables just below the boiling-point for four hours, then drain off the water.

This broth may be served simply with the addition of salt, or cream may be added, which will increase both its palatability and its nutritive value.



Photograph, Saunders, Melrose, Mass.

SOUP WITH ROLLS

as we have said, the substances which keep the blood alkaline.

We know that when sailors go on a long sea voyage, and live upon salt meats with no vegetables, they get scurvy. People may get scurvy at home by living upon the same kind of diet. The salts in vegetables, when freely eaten, prevent this condition, and these salts are obtained from vegetables in the making of vegetable soups. Experiments have been made to determine the value of vegetable broths in the treatment of disease, and cases of consumption have been cured by giving the patients large quantities of concentrated vegetable broths. The blood was thus kept in such a good condition that disease germs could not live

When vegetables, such as turnips and cabbage, are boiled, the odor "goes all over the house." That shows that something is being given off. But we do not wish to lose anything that is in the vegetables; therefore we do not allow them to boil.

The vegetables will be found to be nearly tasteless. Their goodness has been dissolved into the water, and by drinking this vegetable broth we get that which is valuable to the body from a large amount of vegetables, without burdening the digestive organs to get rid of the cellulose of which they are largely composed.

This recipe is only an example. Other combinations of vegetables may be used, adding to them an equal bulk of cold

water, and proceeding according to the directions for this recipe.

This is one kind of vegetable soup. A large variety of soups of another kind — cream soups — may be made by using milk or cream, or both, with various green vegetables; for example:—

Cream Corn Soup

Rub one can of corn, or an equal amount of cooked green corn cut from the cob, through a colander. Add $1\frac{1}{2}$ quarts of milk, part cream if desired. Heat to boiling in a double boiler. Thicken with two tablespoonfuls of flour, stirred smooth with a little cold milk. Add salt to taste.

Similar soups may be made from other vegetables, such as green peas, lettuce, spinach, string-beans, cauliflower, etc.

Nutritious soups may be made from peas, beans, and lentils, either with or without milk and cream.

Tomato Bean Soup

- 1 pint well-cooked beans
- 1 pint stewed tomatoes
- 1 tablespoonful nut butter if desired

Rub together through a colander. Add sufficient water to make a soup of the proper consistency. Salt to taste, and heat in a double boiler.

Peas and lentils may be used in a similar way. Such soups are among the most nutritious. They do not require the addition of pork or other meat, to add to their nutritive value. They are deficient in fats, which may be supplied by nuts, vegetable oils, milk, or cream.

Perhaps few persons have thought of

fruit soups. Fruits, like vegetables, are valuable for their mineral content, and fruit soups are refreshing, served cold in summer, and hot in winter.

Fruit Soup

- 1 pint strawberry juice
- $\frac{1}{2}$ cup pineapple juice
- 2 tablespoonfuls sago soaked one-half hour

Sugar if needed

Mix the ingredients, and cook in a double boiler till the sago is transparent.

Other mixtures of fruit juices may be used, and cherries, strawberries, or sliced bananas may be added, if desired.

Noodles

- 1 egg
- 1 tablespoonful cream
- $\frac{1}{4}$ teaspoonful salt
- 1 cup sifted flour

Beat the egg with the salt. Add the cream, and beat again; then add the flour. Sufficient flour should be added to make a dough as stiff as can be kneaded. Roll this dough into a long, narrow strip, about one sixteenth of an inch thick. Sprinkle it with flour, and roll it into a long roll, rolling it crosswise. Then, with a sharp knife, cut it into thin strips about one sixteenth of an inch wide. This may be used at once by putting it into the boiling soup twenty minutes before it is served, or it may be dried, and put away to be used as needed.

We hope that this lesson has made clear, not only the fact that we need not depend upon the flesh of animals for material from which to make soup, but that *it is better not to do so*; and that soup made from vegetables may be both food and medicine.



Photograph, Saunders, Melrose, Mass.

CUTTING NOODLES

Outer Garments for Stout Women

Dr. Lauretta Kress

Washington Sanitarium, Tak ma Park, D. C.



LAST month we described some undergarments for stout women, which are scientific, practical, and graceful. This month we wish to point out a few of the scientific and practical points for the outer clothing for stout women:—

1. The undergarments must be worn sufficiently loose to avoid drawing the waist in, and thus giving prominence to the bust, abdomen, and hips, which makes the wearer look stouter, and gives less freedom of movement. If these garments are loose, and at the same time firm enough to hold the hips and abdomen in, the form is more pleasing, and greater motility of the trunk is enjoyed.



GIVES SHORT, PUDGY EFFECT

2. The outer garment, or dress, for a stout woman should be of one color, preferably a dark shade of some soft texture. Checks, plaids, and wide stripes should never be worn by fleshy women. Nor should the dress be made of material that stands out stiffly from the body. The custom of wearing a waist of one material and a skirt of another is always apt to give a fleshy person the appearance of being larger than she really is.

3. A dress for a stout woman should be worn long (especially if the woman

be short), with no folds or bias bands or ruffles running around the skirt, as these have the effect of lessening the height. A skirt with some flare is also more becoming. Goods having narrow stripes will be quite suitable. The princess form of dress gives a taller effect, and is preferable for some figures.

4. All stout women look better when clothed in a plain, neat-fitting dress which is loose enough to be comfortable at the waist. Avoid short sleeves, low necks, and wide belts, and do not wear the hair too low. Stand erect. The poise has much to do with appearance. "God made man upright," and woman also. This position flattens the abdomen, and corrects a defect *naturally* which many endeavor to correct by means of *corsets*.



A MORE GRACEFUL DRESS

When traveling, we are often amused to see a short, fat woman with many furbelows, frills, and laces about the neck and waist, tied up in a corset so tight that she can hardly step. This same woman has a short skirt several inches from the floor, a waist of a gaudy color, evidencing little thought of harmony or propriety. The skirt may have several bands of silk stitched around the bottom, and numerous plaits lengthwise over the hips. She may add to this un-

becoming outfit the error of having sleeves tucked around the arm. A crowning portion of this picture is a short Eton jacket, crawling up the back. Such a picture as this we saw not long ago. The poor woman was fairly red in the face upon the least exertion, she was so uncomfortable.

A woman should not be clothed in a manner that will make her look and act awkward and clumsy.

Allow me to dress a model figure for you. My model weighs one hundred fifty pounds; height, five feet three inches.

1. Position is excellent, head erect, chin in, chest up, abdomen flattened, hips back.

2. First garment: a combination suit of linen, or lisle thread, of light weight.

3. An adjustable health waist, with elastics fastened to it for the stockings.

4. A corset cover, with buttons for skirt, which should be silk or white goods with yoke or well-fitting upper portion gored, so no fulness occurs around the hips.

5. Dress, a princess robe, all in one, with no trimming, except an ornamental front if desired.

6. Last, but not least, a well-fitting common-sense shoe, with broad heels and thick soles.

A coat for a stout woman usually looks better if long, and half-fitting in back.

A few words of advice in closing: Stout women, stand right, loosen clothes at the waist, and your whole appearance will be changed.



Copyright, Underwood, New York City

MOUNT ETNA FROM VILLA BELLINI, CATANIA, SICILY

This region suffered heavily in the earthquake

RATIONAL TREATMENT IN THE HOME

Home Treatments for Common Diseases—No. 1

W. A. George, M. D.

Superintendent Nashville (Tenn.) Sanitarium

EVERY father and mother, without calling a doctor or resorting to the use of drugs, should understand how to treat the common diseases which are likely to come to any family. There are many little ills which may be relieved in a short time, long before the doctor can reach the home, if the simple means of relief are understood.

Sprained Ankle

The writer was once called several miles into the country to see a boy who had sprained his ankle quite badly. Nearly two hours, during which the boy suffered intensely, elapsed from the time the messenger left home until he returned with the desired help.

The parents were told to have the boy place his foot and ankle in a pail of water as hot as he could bear. The look of distress on the boy's face disappeared almost instantly when his foot was placed in the hot water, and expressions of surprise came from the friends. They were told that in case of a bad sprain the hot water would relieve the pain for a few minutes; and when the hot failed to give relief, they should place the foot in water about the temperature of well-water; and when this failed to relieve, place it in hot water

again; and so on, first hot and then cold, until relief was permanent. This simple treatment may be applied to the wrist or elbow or knee by pouring the water over it.

Severe Burns

In case of a severe burn of the hand or foot, nothing gives such quick or complete relief as placing the part in cool water. This gives relief by keeping the air away, and may be used while waiting for another dressing to be applied, or may be continued as long as desired. A young man had fallen into a tank of hot water, scalding both feet and both legs half-way to the knees. His feet were placed in a leg tub full of cool water, and the relief was so great that for over twenty-four hours he would not consent to take them out to have another dressing applied. During a part of this time he slept.

Cuts or Wounds

In case of a cut or wound, the part should be placed in very hot water, or the hot water may be poured over the wound. If this is not practical, a clean cloth may be wrung out of very hot water and applied to the wound, being changed at short intervals. Very hot water stops the bleeding, and keeps the wound clean, preventing blood-poisoning,

which is always the result of germs getting into the fresh wound. If this plan were always followed in case of a small cut, or even a scratch on the hands or fingers, many painful sores might be avoided.

Bruises

Bruises may be treated either with hot water or with cold; and in some cases where the swelling is great, it is well for a time to keep a wet cloth held firmly over the swelling, either with the hand or with a bandage.

The Hot Foot-Bath

The hot foot-bath is of great value in many diseased conditions. In case of a cold in the head or throat, if one will take a hot foot-bath in the evening of the day when the cold is first noticed, and go to bed at once, the cold will often be entirely relieved by this one simple treatment. To be effectual, this treatment must be given in time, and in the proper way. The water should be as hot as can be borne at first, and more hot water

added at short intervals, so as to raise the temperature of the bath to as high a point as possible. It should be continued for half an hour, or even longer. The heat applied in this way brings a large amount of blood to the feet, and thus relieves the congested condition in the head.

In the same way the hot foot-bath, either alone or combined with other treatments, is of great assistance in relieving headache, congestion of the stomach or liver, inflammation of the bowels, pelvic disorders, pneumonia, nervousness, and the various fevers. It is often well to give a hot foot-bath before or during the application of heat to a large portion of any other part of the body. The head should always be kept cool while giving a hot foot-bath or applying heat in any form to the body.

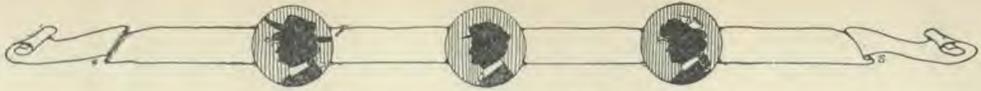
The foot-bath may be given with the patient sitting up or lying in bed, and any vessel large enough to admit the feet comfortably, and holding enough water to cover the feet and ankles, will answer the purpose.



Copyright, 1909, Press Publishing Co., New York

WATER FRONT, MESSINA, SICILY

British sailors aiding in rescue work



Therapeutic Hints

G. H. Heald, M. D.

Surgical Dressing

THE *Journal of the American Medical Association* (March 14) recommends the ashes of anthracite coal as an excellent inexpensive surgical dressing. The ashes should be well screened, and wrapped in sterile gauze, something like a poultice. The dressing is aseptic, and is very absorbent, except where the discharge is thick and gummy. Where there is a very free discharge, necessitating a frequent renewal, the inexpensiveness and the convenience of this dressing may recommend it.

Erysipelas

1. Treatment of the cause. There will probably be found a suppurating point, as a gum-boil, a small pustule in the nose or elsewhere, from which the erysipelas process has extended, which should be cleansed and treated antiseptically. For home treatment, peroxid of hydrogen does excellent work. It should be applied with a small swab, either full strength or diluted one half with water.

2. To relieve symptoms: Epsom salts in saturated solution, applied to the part on a compress consisting of, say, sixteen thicknesses of gauze of a size to go considerably beyond the inflamed area, with a small opening for breathing (when in the face), but none for the eyes, relieves the pain of erysipelas in a few hours, and the recovery is rapid.

The mask should be saturated with the solution, applied to the affected area, and covered with oiled silk or wax paper to prevent evaporation. More solution should be added, say every two hours, or as often as needed to keep the mask well moistened. The dressing should not be removed oftener than once in twelve hours to examine the parts, and should

be immediately reapplied. The infected part should not be washed during the treatment.

Nausea and Vomiting

Find the little U-shaped bone in the front of the neck above the voice box (the hyoid bone), and press it upward, but not backward. The head should at the same time be raised, and thrown back. Maintain this position for sixty to ninety seconds, and repeat if necessary.

Neuralgia of the Teeth

Place palms under chin and back of head, and pull the head strongly up and bend well back. Continue for sixty to ninety seconds.

Internal Poisoning

If the regular antidotes are not at hand, or if it is not known what to do, give freely and repeatedly of *powdered charcoal*, as fresh as can be obtained, and follow with an emetic.

If a corrosive poison, which scars the mouth, has been taken, give white of egg freely, or flour and water, or milk. It is better to remember a few simple and easily obtainable emergency remedies than to attempt to remember a large list and fail.

Poison-Ivy or Poison-Oak

Hot solution of potassium permanganate rubbed into part so it will reach poison vesicles. If skin is intact, the solution should be strong; if broken, it should be dilute. Or try a hot compress of permanganate, frequently renewed. The discoloration of the permanganate may afterward be removed by scrubbing the part with soap-suds, or with a strong solution of oxalic acid, or with sodium hyposulphite, or, better, a combination of the last two.

Poisoning by Coal-Gas

Inject into the bowels two ounces of full strength peroxid of hydrogen, as purchased in the stores, and give by mouth one ounce, diluted with a like quantity of water. Repeat often. Re-

store consciousness by placing a piece of ice in the lower bowel.

Ulcers

Yeast applied locally is said to be excellent to clean up ulcers, and to favor the healing process.

Food Poisoning

A RECENT issue of the *London Lancet* takes up the consideration of "the cause of the serious symptoms which occur in association with epidemics of food poisoning," and asserts that there has been a misconception as to the nature of many of these poisons. They have been supposed to be caused by ptomaines; but according to the *Lancet*, they are usually caused by bacterial activity.

The bacillus enteritidis, isolated by Gärtner, which has caused many cases of poisoning, produces an "endogenous toxin" which is not destroyed by heat. Sterilization may destroy the germ, but the poison remains. A case is referred to in which suit was brought against a packing company because the use of their meat was followed by poisoning. The meat had been pickled soon after the animal was slaughtered; and after being

in the pickle for eight days, it was boiled and pressed. "Cases of poisoning," says the *Lancet*, "have not infrequently been observed from infected meat prepared in this manner, the process of pickling and subsequent cooking not being sufficient to destroy the activity of the toxins of an organism such as the bacillus enteritidis."

In another column of the same periodical a physician mentions seven cases of poisoning from cheese. These poisonings are now generally believed to be due to the action of germs on the food, or perhaps to the growth of the germs, a poison being produced by the germ capable of producing dangerous and alarming symptoms, and even death. Meat and cheese are most frequently connected with such reports of poisoning, though other milk products, such as ice-cream, are sometimes responsible.



Etching by J. Hallu

BEFORE SUNSET



Planning a Home

Mrs. Stella Ridgway

HOME? Yes, a home, a *real* home is what I have in mind,— a place around which may cluster fond memories. I don't mean a *flat*. Just say that word over to yourself, and see how much of a home feeling it inspires in you — "flat," how insipid the word! how insipid the place! A hole in the wall would be a better designation for some of these abodes; for rarely does the sun penetrate them. What sentiment would be stirred in the heart of a man or woman whose childhood had been spent in a flat or an apartment house, to sing —

"How dear to my heart are the scenes of my childhood;

When fond recollection presents them to view —

The orchard, the meadow, the deep-tangled wildwood,

And every loved spot that my infancy knew."

They are simply words having no meaning.

But while the tendency has been cityward, there is a growing tendency to return to the country. "The simple life," "The natural life," "Back to nature," — call it what you will, but let us ponder it well, and see if it is not what we want, if there is not happiness in it for us.

God intended man to live, in a garden, the out-of-door life. When a nervous wreck or a tubercular patient is ordered by his physician to take the "fresh air cure," he is but carrying out the plan the Creator had in mind for man when he placed him in the garden of Eden.

It is the dream of most of those who

go to the city that they may make money enough to buy a home in the country. But why not begin in the country, and so escape the evil that city life holds in its train? Why not take one ounce of prevention, which is so much more agreeable than the pounds of cure?

The man earning the average wage can not hope to acquire a home in the country while paying a rental in the city. Business may necessitate our being in the city during business hours, yet in these days of rapid transit, when distances are so easily overcome, we may soon find ourselves in a good country district, where land can be had at a reasonable price. Having decided that we will have a home of our own in the country, the next thing is the location. This item must be studied well. Do not leave it all to the real estate agent. Get thoroughly in mind what *you* want, then get all the help in finding it you can. Sanitary conditions are the first to be considered, — good drainage, plenty of sunlight and fresh air, and a pure water-supply. Let us say half an acre of land at the least, more if we can afford it, but half an acre will be sufficient for a nice lawn, a good garden, and a chance to keep a dozen hens.

Good-by to landlords and the monthly rent bill! good-by to wilted vegetables and cold-storage eggs! We are to be our own landlord and our own tenant. We are to have a home, a home of our own in the country.



Cancer a Dietetic Disease

THE frequency with which cancer attacks one patient in several places, and the persistent reappearance of the disease after the removal of involved tissue by operation, demonstrate conclusively that the tumor is only a local manifestation of a constitutional depravity so grave that the body is a virtual cancer laboratory.

Dr. Snow has pointed out that jaded, overworked, worried women are especially liable to cancer, and Sir William Banks has shown the extreme predisposition of portly, plethoric-looking men, just past the meridian of life. He cites, in contrast with this fact, that of the exemption of shriveled, tea-drinking, mummified old maids, who, he says, never suffer from cancer.

Cancer seems to arise from the artificial stimulation of systems in which the process of nutrition has become jaded. Piquant condiments are taken, which abnormally excite the functional activity of the alimentary canal and contiguous organs of nutrition, such as the liver, whereby their gross and very imperfectly elaborated food products are thrown precipitately into the circulation. When enfeebled tissues are unable to use it, and enfeebled organs are unable to eliminate it, nature's resources are great, and a shunting process takes place by which the semi-organized material is deposited in the textures of some organ. Cancer most frequently attacks the glands which are organs of absorption and secretion.

By artificially stimulating a jaded ap-

petite, a drain is made on the generally deficient nervous power, by which it is withdrawn from the other organs to those of digestion. This produces an excess of imperfectly prepared food in a system which is too much enfeebled to appropriate it by assimilation to a higher form, or to eliminate it.

Among other illustrative examples, the following is given: A man of sixty years, of coarse dietetic habits, using tobacco by smoking and snuff-taking, and addicted to drink, was advised to take cayenne pepper for his dyspepsia. Soon his dyspeptic symptoms were cured; but shortly after, cancer of the throat appeared, and ended his career.

Cancer patients, then, are mainly premature vital negatives who try to continue positives by the artificial stimulation of effete organisms.

Prominent pathologists who have made a study of the causation of cancer have again and again expressed the opinion that there is a connection between the larger consumption of animal food and the increase of cancer in the British Islands.

It is not easy to imagine a food better calculated to foster the cancerous condition than pork, unless it be the products of vegetarian culinary dilettantism called "savories," in which the greatest bulk of material and the smallest amount of nourishment are combined with condiments which produce the highest state of functional excitement in the digestive organs. The higher vital functions are at once starved for lack of some of the

elements essential to nutrition, and exhausted by the piquant condiments, and inundated with gross, unwholesome products.

Men of fleshy habits, who, according to high medical authorities, are peculiarly predisposed to cancer, are those whose diet consists largely of starchy

foods, such as cakes, biscuits, sweet puddings, pastry, preserves, confections, sweet wines, beer, stout, punch, etc., which greatly increase the glycogenic function of the liver, and load the system with carbohydrates in abundance.—*Maurice L. Johnson, in Westminster Review.*

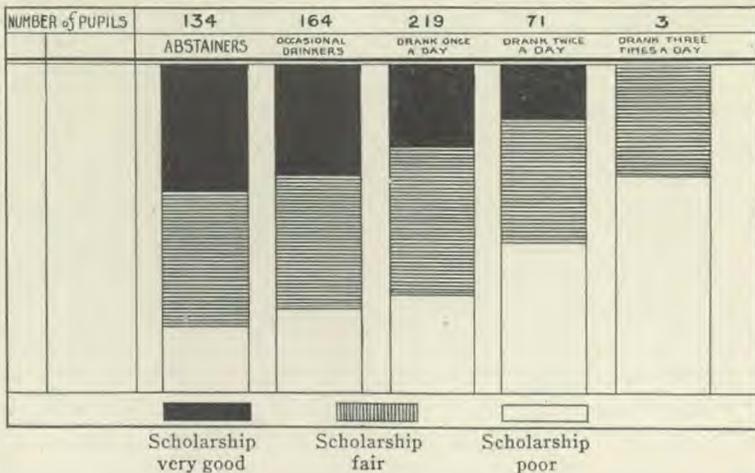
The Effects of Light Alcoholic Liquors on German School-children

ALL the evidence goes to show that no mind is capable of its best efforts when influenced by even small quantities of alcohol.

Some doubly significant observations as to the practical effects of beer and wine in dulling the faculties were made by Bayer, who investigated the habits of 591 children in a public school in Vienna. These pupils were ranked by their teachers into three groups, denoting progress as "good," "fair," or "poor," respectively. Bayer found, on investigation, that 134 of these pupils took no alcoholic

drink; that 164 drank alcoholics very seldom, but that 219 drank wine or beer once daily; 71 drank wine or beer twice daily, and three with every meal. Of the total abstainers, 42 per cent ranked in the school as "good," 49 per cent as "fair," and 9 per cent as "poor." Of the occasional drinkers, 34 per cent ranked as "good," 57 per cent as "fair," and 9 per cent as "poor." Of the daily drinkers, 28 per cent ranked as "good," 58 per cent as "fair," and 14 per cent as "poor." Those who drank twice daily ranked 25 per cent "good," 58 per

ALCOHOL AND SCHOLARSHIP



cent "fair," and 18 per cent "poor." Of the three who drank thrice daily, one ranked as "fair," and the other two as "poor." As Aschaffenberg remarks, detailed comment is superfluous; the figures speak for themselves.

Neither in England nor America, fortunately, would it be possible to gather statistics comparable to these as to the effects of alcohol on growing children; for the Anglo-Saxon does not believe in alcohol for the child, whatever his view as to its utility for adults. The effects of alcohol upon the growing organism, have, however, been studied here with the aid of subjects drawn from the lower orders of the animal kingdom. Prof. C. F. Hodge, of Clark University, gave

alcohol to two kittens, with very striking results. "In beginning the experiment," he says, "it was remarkable how quickly and completely all the higher psychic characteristics of both the kittens dropped out. Playfulness, purring, cleanliness and care of coat, interest in mice, fear of dogs, while normally developed before the experiment began, all disappeared so suddenly that it could hardly be explained otherwise than as a direct influence of the alcohol upon the higher centers of the brain. The kittens simply ate and slept, and could scarcely have been less active had the greater part of their cerebral hemisphere been removed by the knife."—*Henry Smith Williams, M. D., LL. D., in McClure's Magazine.*

School Gardens

THE movement for school gardens which has been so prominent a feature of recent educational development, probably means more to the home gardens of the next generation than any other phase of educational work. At first such gardens met with serious objection from many classes of people, but wherever they have been introduced, they have been of such value that they have won approval on all sides.

An education that does not fit a person to be better able to support himself and those dependent upon him certainly falls far short of what it should. It should also make him a better citizen, for that is one of the great reasons that state funds are continually appropriated for the establishment and maintenance of our public schools. Since less than one per cent of our boys and girls who are to earn their living from the land attend agricultural schools or colleges, it seems important that our common and elementary schools should teach something of

the rudimentary methods of agriculture, and help in a greater degree to fit them for their life employment.

Where there is sufficient space to allow an individual garden for each pupil, better work can be accomplished, as it develops the individual characteristics. Even if the gardens are small, a great deal of good may be done. Sometimes the produce raised is a great inducement to the boys, and when it is sold by the school, it often furnishes a fund for pictures and books, besides furnishing enough to prepare the garden for the following year.

To overcome the lack of space which exists about many school buildings, vacant lots may often be utilized to good advantage. Unsightly vacant lots are a nuisance, and the effect of vacant lots which are used as dumping grounds are demoralizing to a neighborhood, from a sanitary and scientific standpoint.

Another very important point in connection with the school garden is the fact

that it furnishes an opportunity for the physical and moral development, as well as the mental development of a person to the greatest extent. Too many children are injured in our schoolrooms by uninterrupted study. The establishment of a school garden has, I believe, in no instance ever prevented the pupils from going through the required curriculum

already existing in the public schools. In fact, where school gardens have been conducted for many years, those pupils having the gardens have been more rapid in mental, moral, and physical development than those not having them. What greater arguments can any one advance in favor of a school garden?—*Selected.*

“ Good Living ”

A MAN past forty-five years of age had a very active occupation before the great fire in San Francisco. He liked good eating, and especially peppery dishes, and also took many drinks of Scotch whisky throughout the day. His elimination was excellent, and pleasure, not pain, was his portion. After the fire the natural slowing down of elimination at his time of life was accentuated by a sedentary occupation. The quantity of food did not decrease, but the elimination did. The superfluity had to break out somewhere. His face became more red and florid, and its natural wrinkles disappeared, giving him a fictitiously robust appearance.

He acquired catarrhal affection of the bronchial tubes, and a constant cough and clearing of the throat. Rheumatic swelling of the finger joints and rheumatic pains arose, and intensely itchy patches of papular eczema appeared. These were the first symptoms of degeneration, which were bound to augment. Is any one so foolishly optimistic as to suppose that this man will cease whipping up his digestive organs with alcohol and pepper? On the contrary, with the increase of his misery, the use of stimulants will tend to increase. In the long run such excitation does not ameliorate, but rather tends to drive one further into trouble. It is the observation of such cases that makes me

regard the beginning of the fifties as a particularly critical time of life. . . .

Such men are not ascetics. They enjoy eating, and are apt to be devoted to highly spiced foods. They suffer from all sorts of ailments incident to their mode of life, such as rheumatism, gout, stone in the bladder, biliary calculi, and many other irritating eruptions of the skin. At the same time they are often men of immense physical force, and are among the best positive workers of the world. They have a shorter life than nature intended, and may be said literally to dig their grave with their teeth. These vigorous individuals eat until they get a sense of fulness and repletion that comes from taking in a large bulk of food. They sometimes say that the long-drawn-out dinner of many courses is the only one that gives them entire satisfaction. Their vigorous digestive system enables them to turn this mass of food into nutritious juices that have to be disposed of either as units of work, or as excreta, or as fat.

As these men grow fatter, their capacity for work is lowered, but their voraciousness in eating continues. It is not infrequent for them to have spells of depression and melancholy, which they try to escape by drinking. While drunk, they do not eat, and after such an enforced fast they crawl out as limp as a rag, but feeling infinitely better

mentally. Besides going on a spree, they have another natural remedy,—an attack of gout, in which their physician puts them on a low diet, and a course of purgatives and alkalis.

Such great, fat, pulpy individuals form excellent meat for microbes; and

if the bursting of an overfull vessel does not kill them, pneumonia may. In any event, when once attacked by one of the great maladies, their exit is apt to be rapid.—*Douglass W. Montgomery, M. D., in California State Journal of Medicine.*

Value of Flavors

THE physiologic value of flavors has been frequently commented upon, and the subject deserves the widest publicity to check the growing tendency of a certain class of dietists to consider that the only useful ingredients in food are the tissue-building and energy-producing chemical compounds.

Foods must possess much more than carbon and nitrogen to make them wholesome. . . . It is now asserted that the high prices paid for certain pleasing foods is really well spent, even if the "nutritive" value is less than cheaper, more tasteless things. The craving for these dainties is an expression of a natural need, and health suffers if they are not attainable.

The economy of expensive foods is explained by the fact that digestion, at least in man, is dependent upon flavors, without which it is so defective that we do not obtain the good of the food we swallow. As far as experiments go, they substantiate these assertions; for the sight and smell of pleasing food starts the flow of digestive fluids, while disagreeable

odors and sights stop it. . . . The talk of being able to subsist on a few cents a day is simply nonsense, and leads to deterioration of health. What seems to be extravagance in food purchases may be wholesome instinct. The high cost of living is partly due to the cost of the flavors we need.

The insufficiency of plain foods must be a startling shock to all who have so strenuously advocated the simple dietetic life. The poor laborer who can never buy a dainty does not show up well as a workman. Even a horse wants a change now and then, and the cat is an incorrigible thief [and often the "youngun" with a healthy appetite]. The lower races who subsist on plain and unvaried foods are inefficient workmen, but if they are given a more varied diet, they do quite well. Military men have found it impossible to confine an army to a fixed ration, for every soldier spends more or less of his money for occasional dainties. Restaurants follow armies, even into battle.—*Editorial, American Medicine.*



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.

Some Results of Inefficient Care of the Teeth

TO have good teeth and gums is one of the first requisites of perfect health. This ideal can be nearly attained by most persons; and, moreover, a large percentage of diseased teeth and gums can be restored to comfort and usefulness by proper treatment and continual cleanliness. If every surface of every tooth could be kept perfectly clean, one would have neither decayed teeth nor diseased gums. It is rare to see a mouth as clean as it is practicable for one to be kept, yet much time and money and energy are spent for luxuries and fads, and much is also paid to doctors and dentists for the repair of ills that could be prevented by conscientious, intelligent care. To take no care of the teeth, or inefficient care, seems to be almost a universal habit.

Among the most prevalent diseases, as well as the most surely preventable, is that which attacks the alveolar process [the tooth socket], resulting in decay and loss of the teeth. This disease is known by several names,—pyorrhœa alveolaris, alveolitis, Riggs's disease, etc.

I believe the cause, in at least nine tenths of the cases, is the formation of tartar about the necks of the teeth. The tartar being adherent, nature can not remove it, and the inflammation of the gum becomes extended and violent, resulting in raw tissue and open blood-vessels at the point of contact with the

tartar. This results in the formation of pus, in small quantities at first. [The socket of each tooth becomes, in fact, a small discharging abscess.]

A foreign body in the flesh, as a splinter or a thorn, is surrounded by pus, which brings it to the surface. Tartar against the gum margin is a foreign body, and nature attempts to dispose of it just as she would of a splinter. The tartar, being fixed, only continues the irritation, with pus as a continual result. The thin edges of the bony socket, being continually attacked by pus cells, soon begin to melt away, and the membranes covering the bone and roots of the teeth disappear with it.

So long as the irritation remains, the process continues. Thus nature, in her attack on tartar, destroys the tissues about the teeth, until the tooth, with its attacked tartar, is removed.

The incipient stage may continue a lifetime, with no particular inconvenience to the patient, there being nothing to reveal the presence of the disease but the receding of the gums from the teeth; but infection may take place at any time, producing periostitis ["gum-boil"], and ending in more or less extended destruction of bone.

The most frequent point of attack for alveolitis is between the teeth, where the tartar is not destroyed by the lips, tongue, food, or brush; but any place about the

neck of the teeth where tartar is not disturbed may be a point of attack.

The opportunities for entrance of infection to the tooth socket are almost unlimited; for tartar is found in every adult human mouth, and in the mouths of most children.

The quantity of tartar, and the irritability of the gums, vary in different individuals, and with each individual according to his varying power to resist disease.

Auto-intoxication with loss of resisting power makes one susceptible to other diseases, as well as to this; but a low state

the roots imply that pus is confined at some depth below the margin of the gums. If nearer the gum margin, the pus escapes with comparatively little pain. In any case, the infection remains, and continues its destructive work, and a chronic condition of suppurative alveolitis ["ulcerated tooth"] or true pyorrhea alveolaris is the result.

If not interfered with, this condition may continue indefinitely, now and then assuming an acute stage when new foci become infected, quieting down again when the sinus is opened to the surface. But each time this occurs, there is loss of

more bone in the alveolar process or in the deeper portion, often extending into the body of the jaw, and many times, into the antrum [the large cavity in the upper jaw-bone]. The destruction continues slowly or rapidly, until the tooth is lost. When the tooth is out, if there is not some tubercular or syphilitic infection, the healing is prompt. But under proper treatment, healing can be made just as promptly while the tooth still remains, provided



Copyright, Underwood, New York City

REGGIO, ITALY

Where thousands lost their lives in the great earthquake. Cactus growing in the foreground. Two peasant women carrying bundles of faggots

of health can not be the sole cause. An infectious microbe is necessary; but, as it happens, this is always present in great abundance.

So when the gums and the lining membrane of the socket are sore from tartar or any other irritant, infection may readily light up the disease. Raw, irritated places are so frequent about the gums and teeth that one can only wonder that there are not more diseased mouths.

Very painful pus-germ infections about

the dead and infected bone be removed before the foundations of the tooth are too greatly destroyed.

My experience makes me believe that after the initial wound, alveolitis in all its stages is more often due to tubercular infection than any other.

In the treatment of extensive cases it is first necessary to cocainize, then to remove all tartar, giving the teeth and roots as smooth a polish as they originally had. The most minute particle of tartar left is a focus to gather more and

set up further irritation. A most important thing is to teach patients how to keep the teeth free from tartar. If tartar is prevented from forming above the gum, it will not form below, and disease will be prevented.—*M. H. Fletcher,*

D. D. S., M. D., M. S., read at the Chicago session of the American Medical Association. Abstracted from Journal of the A. M. A. [That part of the paper possessing only professional interest has been omitted.]

Some of the Difficulties of the Early Recognition of Tuberculosis, and Some Suggestions as to the Remedy

A CAREFUL estimate, after thorough study of the subject, indicates that for every consumptive patient dying in a certain year in any city, there are at least ten consumptive patients living—even twice that number would still be below the mark, says Dr. Philip, of Edinburgh. Furthermore, a large proportion of cases referred to sanatoriums are in a more or less advanced stage of the disease. The problem is how to discover the hidden early cases [in time to make cure more certain, and to prevent infection of others].

In the first place, the physician must be capable of making an early diagnosis. So great is the prevalence of tuberculosis, and such the supreme importance of detecting it at the earliest possible moment, that I am convinced that special training should be devoted to the subject in medical schools. Even with such special instruction, the practitioner will not become expert without constant experience, but he will at least be on the alert to suspect tuberculosis from easily discernible symptoms, and if in doubt, can refer the case to an expert.

The second difficulty is on the part of the public to appreciate the importance of an early diagnosis. How is any person who happens to feel indisposed, perhaps not enough to seek medical advice, to suspect that his condition may be that of early tuberculosis, and seek an examination of his lungs? Or again, if he has a suspicion that such may be the case, how

can he be made to realize the supreme importance of early diagnosis and treatment, both to himself and to the public?

The general dissemination of popular tuberculosis knowledge by all the various methods now employed, such as exhibitions, lectures, literature, the public press, the influence of sanatorium graduates, the work of the visiting and school nurses, and the instruction of schoolchildren upon the subject, now required by law in the public schools of Massachusetts, are all aiding in the solution of this problem. Indeed, it would seem that every one might learn the few simple symptoms which suggest tuberculosis of the lungs, and the importance of early treatment. Such, however, is not the case. There are the submerged of the tenement districts, the ignorant immigrants, and thousands of overworked laborers, oblivious to everything but the daily struggle for existence, who, many of them, toil on in spite of increasing weakness until the disease is past arrest.

There should be periodic examinations of all mill operatives, and sanatoriums provided for those found to be tuberculous. There should be a house-to-house inspection in the tenement districts, and an examination of every inmate. There should be more free dispensaries, particularly in the smaller cities and towns, and they should be so popularized and advertised that they will be eagerly resorted to by the working people.

One difficulty that stands in the way

of incipient cases seeking help is the fear that one's employment may be lost. To obviate this the public should be thoroughly disabused of the idea that the careful consumptive, or the consumptive without sputum, is dangerous to his fellows, and suitable work should be provided for those who have been thrown out of employment on account of the disease, and who are yet able to do some work for their support. Farm colonies are a practical solution of this problem.

Another field which offers fruitful results is the examination of schoolchildren, and, in fact, of all students. There is nothing more pathetic than to be confronted with a case of advanced tuberculosis in a young student, where life might have been saved, had the disease been detected in its inception. I would have a yearly examination of all children, and finally an examination at the close of their career.—*Dr. E. O. Otis, at the International Congress on Tuberculosis.*

Tuberculosis and the Child

TUBERCULOSIS invariably has been a disease of the household, a distinct danger to the family, an enormous economic loss to the community.

To control tuberculosis, proper consideration should be given the child, especially in consumptive families; for frequently the children of to-day will be the consumptives of to-morrow.

Tuberculosis susceptibility and mortality are greatest in very early childhood; and where there are a hereditary predisposition and unfavorable surroundings, the danger of infection from older patients is greatly increased. Overcrowding, lack of air and sunlight, dirt, neglect, and improper food lessen the child's normally low resistance. Whooping-cough, measles, and *la grippe* powerfully predispose to tuberculosis.

Another factor which largely determines the onset of the disease, is the intimacy of the child with its parents and with neighbors having the disease, in school or at home.

When there is consumption in the home, even when the consumptive is careful, the danger of the child is greatly increased; much more so, if the patient is careless or ignorant.

In a study of one thousand cases by the author, direct transmission from parent to the child was evidently the most important factor. Not only are the air-passages an important door of entry in these cases, but sometimes the organism gains admission through the adenoid tissues of the throat and the tonsils. About fifty per cent had hypertrophied tonsils, and fourteen one-half per cent had operable adenoid growths. Even where operation was imperative, it was seldom performed, because of popular prejudice.

The detection of pulmonary tuberculosis is extremely difficult in early childhood, because the damage, in order to be as apparent as in an adult, must be relatively very large. A chronic sore throat, with persistent cough, common among the children of the poor [should, but] does not usually call attention to the lungs. The presence of measles or whooping-cough may mask the presence of tuberculosis. The absence of sputum is another deceptive condition.

Regarding the relation between milk and tuberculosis of the young, McCaw reports 26,193 children under treatment in Belfast, one fifth being tuberculous, and two fifths of the tuberculosis being

of the surgical type (bone and glandular). Surgical tuberculosis is also prominent in other large English and Scotch cities. McCaw states that the generally received opinion is that surgical tuberculosis is of bovine type, and that bovine and human infections do not commonly occur in the same case.

In Boston the infection seemed to be, in the great majority of cases, of the human type.

Concerning the period of latency, it appeared that acute signs and symptoms of the disease appeared in children within a few months after the exposure.

In the study of a consumptive family, many children with few or no symptoms, show, on examination, real evidence of tuberculosis in some portion of the body. Often after measles, or associated with a common "cold," the tubercular disease begins, unsuspected. With the repetition of colds, or from neglect of diseased con-

ditions in the nose and throat, the lung trouble may develop and manifest itself by a tired feeling, paleness, loss of strength and appetite, followed, perhaps, by night sweats, loss of weight, and distressing cough. A slight evening rise of temperature is most significant. Cough, however, is not *necessarily* a sign of tuberculosis. In our community, while the educational movement has been rapidly making progress, the full realization of our duty to children has not been appreciated. Much can be done through isolation, education, and cleanliness. The results in day camps have exceeded our expectations. There has been general, and in some cases remarkable, improvement. The child at this age is particularly open to ideas in regard to hygienic living, and the recuperative power of the body at this stage is great. — *Drs. Floyd and Bowditch, in Boston Medical and Surgical Journal.*

Alcohol and the Human Body

(Continued from page 137)

cravings which no foods can satisfy.

The appetite for liquor is encouraged by the preparation of food with condiments and spices. These cause a feverish state of the system. They irritate and inflame the coating of the stomach, cause nervousness, and create an almost intolerable thirst, which water does not quench. The question of foods and healthful cookery is of primary importance. Tables should be supplied with the most wholesome food, prepared in a

simple manner, free from every irritating substance. Thus only can good blood be produced and maintained.

As a man sows, so shall he also reap. This is a law of nature which knows no variation. Our bodies are composed of what we eat. Therefore if we would train children for usefulness, let us set before them a diet that will insure sound development. Let us eat for strength, and not for drunkenness.

Graysville, Tenn.



THE MEDICAL FORVM



Physicians and the Anti-Rum Crusade

DR. FREDERICK PETERSON, in a paper read before the ninth New York State Conference of Charities and Corrections, at Elmira, Nov. 17, 1908, shows the effects of alcohol upon the public health. He says that it is not a single Jukes family, but legions of Jukes families that menace the human stock.

"It is because physicians have been brought into contact with this destructiveness that they are leading everywhere in the great crusade. They feel themselves to be the guardians of the health of the racial mind and body. Just as they fight tuberculosis and typhoid fever and many other infectious diseases, so do they array themselves against the dangerous agent that crowds the hospitals, prisons, and almshouses with its countless victims."

There may be some technical differences as to whether alcohol may be called a food, whether it may be used with profit as a medicine in some cases, whether moderate drinking is always harmful,—

"but the medical profession is one in its stand against the abuse of alcohol, which leads to the wreckage of the home, and to race degeneracy."

Medical men are becoming more convinced of the harmfulness of alcoholic drinks; for scientific study has incontestably shown in many ways the evil effects of alcohol.

"The evidence thus accumulated in the past twenty to thirty years has established so many convincing facts that medical men

are roused as never before to the need of restricting the sale of alcoholic beverages and of teaching the public the facts they have come to know. They all agree that alcohol is a poison, taken in any form—beer, wine, hard cider, rum, whisky, bitters, or patent medicines. There is no question as to its being a poison."

Dr. Peterson gives "a brief summary of what scientific investigators have recently determined to be the action of this drug.

"It is no longer considered to be a stimulant, but rather a depressant.

"It prevents digestion.

"It depresses and weakens the heart action.

"It decreases the capacity to do muscular work.

"It diminishes the intellectual functions, by dulling the creative faculty, impairing judgment, vitiating the correctness of perceptions, and by generating timidity.

"It brings about slow, far-reaching anatomical changes, such as fatty degeneration of the heart, kidney disease, diseases of the blood-vessels, changes in the muscular tissues, and in the cells and fibers of the nervous system.

"Its habitual use lessens the normal defenses of the organism against infectious diseases, especially tuberculosis."

Dr. Peterson himself has had printed on his prescription blanks the following brief temperance lecture:—

"Alcohol is a poison.

"It is claimed by some that alcohol is a food. If so, it is a poisoned food.

"The daily regular use of alcohol, even in moderation, often leads to chronic alcoholism.

"Alcohol is one of the most common causes of insanity, epilepsy, paralysis, dis-

cases of the liver and stomach, dropsy, and tuberculosis."

"Fathers and mothers who drink, poison the children born to them, so that many die in infancy, while others grow up as idiots and epileptics."

❖

The Medical Profession and the Emmanuel Movement

WHEN the Boston preachers began their work, they thought to allay professional prejudice by refusing to accept any patients for healing who had any organic disorders, and the applying patients had to enter the church clinic through the portal of a doctor's office. Before these men would attempt to heal by prayer, the candidates for divine healing, or faith healing, must present a bill of health so far as organic disease was concerned.

But this is not entirely satisfactory to the medical man, who looks with jealous eye upon any attempt to heal, by whatever method, as an encroachment upon his divine right. Year by year, as medical laws, through skilful medical aid, have become more effective, he has felt more secure in his rights; and now that there is an attempt to break away from the old-time medical practise for a number of newer fads and fancies, Herr Doctor feels mightily grieved.

Why should he? He obtained his position of healer, in the first place, not through intrinsic merit, but through the credulity of the laity, as medical history will amply show. The history of medicine, of whatever school, is quite largely a history of blundering. That is not to say that medical men do not do good. They do. But the methods by which other isms and pathies steal away their patients are the same in effect as those which won for the regular practise its prestige in the first place. It will be a survival of the fittest. If drugs, after the old-school methods, are all-sufficient,

the pendulum will again swing back to drugs, and the populace will discard the other forms of healing. But the old school in itself has not been sufficient to stand against the innovations. Condemning them at first, it has afterward adopted hydrotheraphy, electrotherapy, massage, phototherapy, thermotherapy, and the like, as old-school methods. Possibly it will later adopt the Emmanuel Movement as part of the old school of Medicine.

Dr. Allan McLane Hamilton, in a recent *Medical Record*, protests against "The Abuse of a Calling."

"Regular medicine" is unpopular just now, and an ignorant Assembly legalizes one species of fraud after another, while our own profession, secure in its conscious sense of dignity, sits quietly without protest, hugging to its soul the flattering delusion that the public will some day see its error, and the disloyal patient will return to the fold after he has had his experience. Unhappily, he does nothing of the kind, for new frauds are as numerous as the leaves."

The poor layman needs a protector; he is not capable of taking care of himself without a guardian. Only a few centuries ago the spiritual leaders thought the same thing. If the state did not forcibly direct its citizens in the way of the church and salvation, they would go to ruin. This generation prefers "ruin" without state aid, to "salvation" by state methods. That feeling is growing among the laity in the matter of taking care of their own private health; and while they recognize the value of quarantine, and sanitation, and public health measures, they feel a little sensitive about being dictated to as to what means they shall use, or what doctors they shall choose, for the cure of disease.

The book "Religion and Medicine" seems to have been the "fly in the ointment" which has brought down on the devoted heads of Dr. Worcester and his associates the anathemas of the medical press. This book tells people plainly—

many of them — why they are sick, and how, by turning their thought into right channels, their sickness will vanish. A short time ago there was an evident disposition on the part of the doctors to receive this doctrine and to make much of psychotherapy, variously applied. Now there is somewhat of a tendency to belittle psychotherapy.

Says the *Medical Record*, editorially, after commenting adversely on the Emmanuel movement:—

“The first question raised by a perusal of the official book of the Emmanuel movement, is, Why? Why clerical healing? and why the limitation of clerical healing to functional diseases?” “If the clergy have a divine commission to heal the sick, they are recreant to their trust, and cruel to the suffering, to deprive any of the benefit of their healing words; and it will not be long before they recognize that fact, and act accordingly. That the law forbids them to practise medicine is, of course, a detail of no importance.”

The real cause for alarm is that this book is destined to inaugurate a general movement for the healing of patients independent of the medical profession.

“Clergymen are no more than human, like all the rest of us; and once this movement is well launched, it is safe to predict that medical men will have less and less to do with it, . . . because clergymen will no longer care for their help.”

A letter to *The Journal of the American Medical Association* from the four neurologists constituting the advisory board to the clergy of Emmanuel Church, states the belief of these physicians that “the Emmanuel movement is sound in its foundation principle; namely, that the effective co-operation of physician and minister is of value to many sick persons.”

“Since character is an important factor in the cure of many diseased conditions, especially of the nervous system, we believe that any one who can help to guide, strengthen, and enlighten the patient by the influence of moral and religious teach-

ing will be of genuine assistance to the patient, and to the physician in charge of the case. In rendering such assistance at the physician's request, and with his co-operation, we believe the clergyman to be entirely on his own ground, fulfilling in relation to the individual that time-honored office of ethical and spiritual instruction which in the past he has exercised chiefly at long range to congregations from the pulpit.”

They admit that mistakes have been made, and that it has been necessary to improve methods in accordance with a growing experience. Especially they have appreciated the desirability of a closer relation between the physician and the clergyman.

❖

Weight and Mortality

DR. SYMONDS, chief medical director of the Mutual Life Insurance Company of New York, recently made a study of the effect of overweight and underweight on mortality, which appears in a recent number of the *Medical Record*.

According to life insurance experience, there has been established a certain standard weight corresponding with each inch in height. This standard varies with the age. A person five feet eight inches tall should weigh more, for instance, at forty than at thirty. Any one weighing within twenty per cent of the standard is considered fairly normal, and any one outside this limit is abnormal, and is classed as underweight or overweight, and is considered an unsafe risk for a life insurance policy.

Comparing the mortality records in the case of 1,499 male overweights and 1,078 male underweights with the records of the entire male mortality of the same company, he obtained figures which prove very interesting for study.

A few of his results are given here,¹ showing that the overweight is more apt to die of cerebral hemorrhage and other

brain disorders, Bright's disease, and diabetes; the underweight, of tuberculosis, pneumonia, cancer, and *old age!* The surprising part of the report is the suggestion that a larger proportion of underweights than of the general run of insurance risks, die of old age, having escaped all the diseases. This leads to the query whether the old saw, "A lean horse for a long pull," is not applicable to human life.

In view of the fact that some have attributed cancer to "high living," and have noted its prevalence among "gross feeders," the figures which show an increased cancer mortality among underweights merit attention.

Dr. Symonds comments:—

"I am convinced that the same percentage of overweight is a more serious matter than if it were underweight. The excessive weight, whether it be fat or muscular, is not a storehouse of reserve strength, but a burden which has to be nourished if muscle, and which markedly interferes with nutrition if fat."

Under twenty-five, a moderate overweight is an advantage, and underweight points gravely to beginning disease,—

"but when we pass the age of thirty, these conditions are reversed, and the difference between overweight and underweight in their influence upon mortality becomes more marked with each year of age."

Dr. Symonds urges physicians to impress upon their patients the necessity of keeping within ten per cent of the standard weight; "for within that range is found the lowest mortality and the greatest vitality."

	Over-weights	Under-weights	Gen-eral
¹ Bright's disease, etc.	11.07	5.30	6.66
Cerebral hemorrhage, softening of the brain, paralysis, etc.	14.14	8.47	12.32
Diabetes	3.40	0.65	1.25
Tuberculosis	2.93	16.98	12.42
Pneumonia	6.87	12.34	9.03
Cancer	4.40	5.57	4.18
Old age	None	2.04	1.50

Cancer

CONCERNING the relation of age to cancer, the *Saturday Review* (July 22, 1905) says that cancer exists in a large number of animals, mammals, birds, fishes, amphibians, and reptiles, and that in all species the death-rate from cancer always greatly increases with age. If an animal is long-lived, it is more likely to have cancer. A cancer may be grafted into an animal of any age, but spontaneous cancers appear, as a rule, only in the older animals. In 1906 the same opinion is re-enforced:—

"A remarkable conclusion, suggested in former reports, is now becoming more certain; the frequency of cancer increases with the age of the tissues of the individual. The parallelism between the age and the liability to the spontaneous occurrence of cancer appears to hold good not only for man, but for all animals, and is certainly of great significance."

Elsewhere we give an abstract of Johnson's thesis that cancer is the result of gross eating, and several other things. Nearly a year later than the publication of this article, *Nature*, one of the authoritative scientific periodicals of England, made the statement that there is—

"no evidence that any form of diet or mode of life conduces to cancer formation."

Nature (July 27, 1905) quotes the Report of the Imperial Cancer Research Fund, to the effect that—

"it is not yet possible to determine satisfactorily, whether cancer has really increased."

The *Nineteenth Century* thinks that perhaps the actual increase in cancer is not so great as appears. It expresses the belief that there is no doubt that—

"greater knowledge and accuracy in dealing with disease lead to the result that many deaths are now properly registered as cancer which in former years would have been ascribed to another cause. The truth of this is shown by the fact that it is not external cancers which have so largely increased, but those in the more inaccessible parts of the body, and for that reason more difficult to recognize."



Conducted by T. E. Bowen, Takoma Park.

Medical Missionary Work in India

H. F. Jewell

THE medical missionary can often find openings for sowing the gospel seed where it is well-nigh impossible for the truth to be given in any other way. This has been satisfactorily demonstrated in every difficult field. We are glad to see our medical work in India taking more definite shape. Out of past experiences we are developing a work and workers that will, under the guiding hand of the Great Physician, be a powerful factor in opening the way for evangelical and other missionary work.

The Mussoorie Sanitarium, which was opened for work in April, 1908, has more than paid expenses, and has developed valuable workers from among its patients. The doctor and medical staff have quietly sown the seed, and it has taken root in the hearts of some of the patients; and these are, in turn, giving it to others. With fear and trembling the sanitarium work was located in the mountains of North India, where the elevation is about seventy-five hundred feet; but the work has been blessed from the beginning, more patients have come than we could accommodate, and the strength of the workers has been taxed to the limit.

Dr. Ollie Oberholtzer, of Burma, is here for rest and recuperation. She

brings a good report from that part of the field. The medical work has not made much of a showing in Burma yet, but our nurses and canvassers have been laying the foundation for future work. Much of the time the past two years has been spent in learning the language. Brother H. H. Votaw is planning to open treatment-rooms in Rangoon this winter; Brother J. L. Shaw is now on his way to Rangoon, to take part in a general meeting of our workers in that field. Plans will be laid for the development of the work in Burma, and for putting our people throughout that field in closer touch with the work in general.

It takes much faith, some money, and medical missionaries to start treatment-rooms anywhere; and thus far in this field our principal possession has been faith, and sometimes that has been pretty well tested.

Miss Fuller has just gone to Karmatar to look after the work at that station. Karmatar gives an experience to the medical missionary that is both unique and practical. Almost every disease known to medical science is found among the natives of India. Many are brought to the mission with fractured bones and incurable diseases; and as there is no physician near, the nurses have to rely upon their own skill and the power of

God. Sister Ruoff writes encouragingly from Bangalore, where she has been located the past year. Through her faithful efforts, one valuable medical worker has been added to our list. Mrs. Thomas, a trained nurse, has accepted the truth through the efforts of Sister Ruoff, has been baptized, and is rendering valuable assistance to our sanitarium.

We are expecting a heavy run of work



TRAVELING BY TONGA

This is a very common mode of travel in North India

at our Calcutta treatment-rooms this coming cool season, which lasts from November till the first of April. They are well equipped for thorough work, and their patrons are usually from the best classes of natives and Europeans.

Our health food factory, located in

Calcutta, is working almost to its full capacity, and has proved a great blessing to many in this country. Thirteen varieties of foods are manufactured, and sold throughout India and Burma and the northwest frontier. They find ready sale among the native people, as no animal fat is used. No orthodox Hindu or Mohammedan will buy food if he knows that any animal product has been used in its manufacture. Pork is an abomination to the Mohammedan, and all animals are sacred to the Hindu, who will not touch anything in which meat or animal fat has been used. Only a few days ago the food factory received a letter from a man on the northwest frontier, who had been searching for eight months to find such health foods as we have.

We are planning a general campaign throughout India and Burma this winter, for all who can enter the field with our *Good Health*, *Oriental Watchman*, and other literature. All the workers are of good courage.

Written Oct. 8, 1908.

From Oregon to Korea

Riley Russell, M. D.

WE reached Soonan, September 24, after spending just one month on our journey from Roseburg, Ore. We stayed some time in Japan, as our boat stopped several days at the different Japanese ports.

Tokyo, the headquarters of our work in Japan, is a city as large as Chicago,

if not larger. In the distance we saw the mikado's palace. After leaving the boat at Kobe, we stayed at the sanitarium until Monday, visiting the native sanitarium and the church, where one of our native ministers preached to an interesting audience. Dr. Dunscombe is working hard, and the sanitarium is full.

Japan is very interesting to a foreigner. The hustling little people, with their queer ways, the green-covered mountains, and the extensive rice-fields, all impressed us as very different from the United States.

Korea and Japan are almost opposites in appearance; for the Korean mountains are rocky and almost bare, and there is no timber to speak of. Korea might be described as a level country covered with mountains; for everywhere are flat, fertile valleys, where rice, cotton, millet, wheat, a kind of large radish, peaches, pears, and Kafir corn are raised. Their chestnuts are very large. The persimmons, about four inches in diameter, are excellent.

The people are about as large as Americans, and look somewhat like the American Indian. Some of them are becoming established in the truth, and those whom we know best we like very much.

Our teacher has refused to accept a good government position, preferring to remain with us.

Everything here appeals to one as being very old. There are ancient tablets scattered over the hillsides. The east gate in Ping Yang was built while David was a boy. And when we see the things about us which look just like the pictures in the old family Bible at home, of the people in Palestine, etc., and understand some of the needs of this people, we can say, as never before, "The harvest is great, but the laborers are few." The people,—dirty, diseased, and poor,—living in little mud-walled, dirt-floored, straw-roofed houses, certainly appeal to us as needing help. Already we have had patients who have walked thirty-three miles to reach us. We are all happy, and of good courage, and feel as never before like working to win souls for the Master.

Argentina, South America

R. H. Habenicht, M. D.

WE are all well, and the work here at Diamante, Entre Rios, is moving on as usual, with the house full all the time. With its six inmates, and the thirteen who have made application for entrance, our new sanitarium as planned would be more than full. We sent Brother Block out among the Italians south of us, three days, and he obtained over five hundred dollars for the sanitarium.

Can you secure a doctor for us at once? Something must be done along this line. The work this month (September) has been the heaviest I have ever had here. I have ridden as far as thirty leagues in one day, changing horses eight times, and making twenty examinations. Now patients come from

Parana, Santa Fe, Jujuy, La Paz, Victoria, and from the German colonies. So we hope for a self-supporting work here at once. But we can not do as we are doing now. Mrs. Habenicht is almost broken down; and when she can not help, the work is lame. There is no playtime. We have six or seven surgical cases waiting for room. Besides the one hundred eighty house treatments, this month I have made three antitoxin injections, twenty-four visits away from home, treated one hundred forty-five cases from the outside, and performed two operations of the knee-joint. During the week ending September 19, one hundred eighty persons visited our home, either for counsel or to accompany sick persons. The next day, Sunday, we counted eighty

persons who came, and then left off trying to count. Think of all this for one doctor and his wife, without the assistance of a single nurse!

[Since this was written, a company of nurses has sailed to join Dr. Habenicht in his work. Also a doctor is under appointment for that field.—ED.]

A Drunkard Reclaimed

A FEW weeks ago a drunkard came to the Atlanta (Ga.) Sanitarium, filled with poisonous narcotics, and very intoxicated; but notwithstanding, he was kindly taken into the sanitarium by the manager and physician in charge, and baths and treatments were administered in order to relieve him of pain and headache.

Finally, a brother began to talk with him in regard to his eternal welfare, and prayed for him in the physician's office. The Lord most wonderfully and miraculously heard prayer in behalf of the poor man, and took from him the taste for alcoholic liquors and tobacco. "Now," the man exclaimed, "I have something that will keep me from going back to these awful habits."

The writer met the man a few weeks later, and he said, "I've not used either liquor or tobacco since." He is now living a consistent Christian life. His wife and younger son are also walking in the light with him, and we are looking for his elder son to be converted soon.

Through this great change in this man's life, the way has opened for me to hold meetings in his home, and a number of others are deeply interested. It pays to be kind and Christlike to unfortunate men; Jesus died for them as well as for others. To the dear Lord we give all the praise and glory. His "hand is not shortened, that it can not save; neither his ear heavy, that it can not hear." May he increase our faith.

J. F. BAHLER.



Copyright, 1909, Press Publishing Co., New York

EARTHQUAKE EFFECTS IN MESSINA
Once a street of palaces

A Village Dispensary in Palestine

I HAVE been asked to give a little account of the work in our dispensary here, so will send a few facts about some of our patients. We had seven in-patients during the year; that is, they had a bed on the floor of our waiting-room, so we were able to give them treatment.

Of these, two were young men with foreign bodies in their eyes. M—S— was a young Arab, brought by his mother, aunt, and many cousins. He had a thorn in the conjunctiva, and his eye was much inflamed. With many tears, the mother asked us to take him in, as they had walked twelve hours to come to us.

With cocain the thorn was removed, while about ten women and boys held the patient, as they could not believe it would not hurt him; and when he told them he had no pain, they all asked for some eye-drops that stopped pain. Finding one of the boys could read, I gave him a Gospel to read to the sick boy. He began at the first chapter, and went on to the end of the book. In the evening, I asked him what he thought of the book. "Oh!" he said, "very good; but I am well; it is M— who is sick, so I put it under his head, and now he feels better." He had evidently read it only as a charm. We explained it to them, and after some time two of the women grasped the story of our Lord's dying for us and for them. In three days they went off to their tents, taking the book with them.

A Promise Fulfilled

A— was a Mograbin. They have a feud with the people of this village. He came with a piece of shot in his eye. It came out fairly easily, and he went off in two days with a bottle of lotion. He was a wild creature with two knives, a pistol, and a great many

cartridges in his belt. He told us he had been cleaning his gun, and it went off, but he seemed very pleased with himself, and said he would come and see us again. He came last month, bringing a small girl who had fallen from a wall upon a sharp stone, and torn the muscles of her leg. During the service he was very attentive, and when it was over, he was explaining to his neighbor the story of the lost sheep, saying, "They told me about it when I was here before." We had not thought he had taken in anything!

We had several cases of snake bite. One, a girl, was brought to us very sleepy and vomiting badly. We used permanganate of potash, and gave plenty of coffee and ammonia, her brothers keeping her awake by making her join them in singing hymns and choruses. In forty-eight hours she was so much better we let her go home. The mother and girls of this family are Romanists; the father and boys are with us. The leg was bad for a long time, but it gave us the opportunity of seeing the mother and girls more, and they are at least grateful for what was done.

Examples of Native Treatment

Another snake-bite case was a man from a village near by. He had been burned so badly, and tied so tightly, that the treatment was worse than the disease. The skin was destroyed all round the arm, but with hot boracic baths and fomentations he went home with a healthy wound, and his arm nearly normal in size.

One girl, suffering from a scorpion bite, had had the wound scarified with some kind of poisonous thorn, and then, a week after, was brought to us with very bad cellulitis. As she was an old schoolgirl, we were able to bring back to her memory something of what she

had learned in school, and her aged mother was a most earnest listener.

Just lately we have been getting quite a number of accidents from the threshing-floors. The boys who drive the horses round and round the heaps of corn, often beat the poor animals most cruelly. Now and then, by way of re-monstrance, the horse kicks out, often smashing nose or head, or cutting the face of the young driver. As a rule, most need a stitch or two, and then we preach kindness to animals. The same boy seldom comes twice, so I hope they learn their lesson.

A Bad Fracture

Just as I had come from school a few weeks ago, a crowd came into the garden with a woman who had a badly fractured arm. She had been to the butcher (who is the bone-setter of the place), but he wisely refused to touch it, so she then came here. It was fractured in two places, a large artery had been wounded, and it took some time to find it and stop the bleeding. It was then put up temporarily. At the end of a week it was put up permanently, and healed as fast as it could. This woman now loves to be read to, and tells every one her arm healed in answer to prayer.

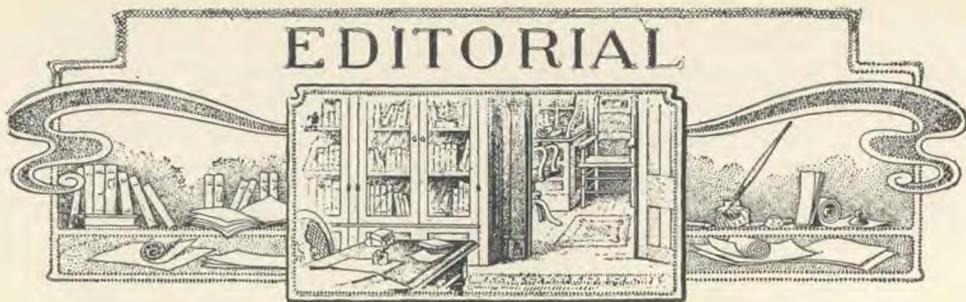
Although the village was full of ophthalmia, you would, if you paid us a visit, find very few bad eyes among the present generation. The people have learned the use of salt-water, and believe

in it. Before we closed for the holidays, we were besieged with bottles for eye-drops—it is something to be thankful for. So one goes away feeling that most of the schoolchildren will be attended to; for the teachers have big bottles of eye-water, and have been taught how to use it. They all look after their children voluntarily, if they come to them.

The Service at the Dispensary

We always have a service at the dispensary before we begin, and it often becomes like a "Methody meeting," as one and another call out, "Have mercy!" "His name be blessed!" or "True it is!" Sometimes the word goes home, as, for instance, one day a woman came and said, "Is it only to me you talk to-day?" "Why do you ask?" said the Bible woman. "Because it's quite true I was cruel to my mother-in-law, but I'll go back and live in peace." This was a day she had been telling them that their actions showed whom they really loved, and whom they tried to please, and that the name was nothing without the life. But it is in the visiting one is able to speak to individuals, and there we often hear of lessons learned at the dispensary, and verses quoted are often repeated. One just goes on sowing the seed, here a little and there a little. Pray for us in these Moslem lands, for we need "to lose not heart, but learn what God is like."—*Miss Lawford, in "Mercy and Truth."*





Unsigned articles are by the editor

Catastrophies

IT is the manner of an earthquake's attack, and not its extent only, that horrifies. An earthquake might occur every year in every country, and destroy thousands of lives and millions of dollars' worth of property, and hardly be noticed—provided the effect did not appear *en masse*.

Every year in this American nation consumption claims as many victims as did the most disastrous earthquake known to history—the recent earthquake of southern Italy. The world is appalled at the frightful desolation and loss of life and the misery caused by the Italian catastrophe—and well it may be.

It witnesses, with scarcely an emotion, the silent and stealthy but equally fatal and destructive white plague, as it claims its victims one by one. Let this disease strike its blow on a certain day of the year, say New-year's day,—10,000 in New York City, 3,800 in Chicago, 3,700 in Philadelphia, 1,500 in Baltimore, 1,300 in Boston, 800 each in Washington and San Francisco, and other places in like proportion,—let the destroying angel of the white plague visit these and all other cities and towns the first of January, claiming one victim for every five hundred inhabitants,—how we would live in terror of that frightful holocaust! How we would quail before that harvest of death! But exactly the same thing is ta-

king place, not one day, but scattered over the entire year. The effect is the same, a sacrifice of the life-blood of the nation,—here one, there one, every three minutes, three hundred sixty-five days in the year. One of every five hundred is offered up every year on this altar of Moloch! And we look complacently on,—at least most of us do,—but there is an awakening.

The dawn of a better day is coming. We have learned that the disease is not a visitation of the gods, but the result of our own carelessness and neglect. Some of us have learned that we are our brothers' keepers, and that the increasing knowledge regarding this and other preventable diseases places upon society and every one of its members the duty to aid in every way possible in the suppression of this mighty devastator.

There is a skirmish on the picket-line, indicating that defensive forces are massing against this great enemy of the human race. Here and there a victory is won, and the enemy is driven back. Congresses, exhibitions, lectures, educational work, especially enlightenment of school-children, day camps, night camps, sanatoria, tuberculosis classes, visiting nurses,—these constitute some of the tactics in the most notable warfare ever engaged in by mankind—the warfare against the microbe.

Mental Astigmatism

THE January *Dietetic and Hygienic Gazette* has an article on "What the Public Should Know of the Recent Progress of Medicine." Dr. W. H. Peters tells us that the branch of medicine which deals with diseases of the stomach, has recently been very much revolutionized, and traces the beginning of the revolution to the work of Spellanzani, who performed an ingenious experiment in order to determine whether food is digested in the stomach by mechanical or by chemical means. He made a small hollow wooden ball, with perforated sides, which he filled with meat, and made a dog swallow. The ball was afterward recovered, empty, showing that the meat had been dissolved by chemical means, as the muscles of the stomach could not have acted on the meat within the ball.

Dr. Peters follows this with a bit of fine sarcasm that is all the more enjoyable because it is good-natured. He says: "I hope the antivivisectionists of his day were not too hard on him."

Now I have nothing against the antivivisectionists; they are a good people, with great zeal and the courage of their convictions, and enough of the disposition to mind the business of the other fellow to accomplish something in this world; but I must say that I do think them characterized largely by an emotional rather than a thinking element, given to seeing things with a false perspective, and unduly credulous regarding the alleged atrocities of the laboratory.

Vivisection is animal experiment, and so manifestly useful in the saving of human life that no one who had made a careful study of its results would protest without feeling that he thereby was a traitor to his own race.

It would not do to deny that under the name of animal experiment, men had

glutted a savage, ferocious nature on helpless brutes. But this is no more an argument against legitimate animal experiment than is the fact that occasionally a bank president wrecks a bank an argument against legitimate banking.

Some will say it is an argument for supervision, such as the banks have. That may be so; but the banks are not supervised by a clodhopper, but by a man skilled in finance; and so, in case there is any supervision of animal experiment, it should be by those thoroughly competent to appreciate the value of such experiments.

The only thing a law to regulate animal experiment would do would be to restrict the work in reputable laboratories; and if there are those who delight to torture animals, it could easily be done in the cellar of a private house without detection.

As an instance of the want of true perspective on the part of the antivivisectionists, it is only necessary to call attention to the almost limitless wanton cruelty to animals that takes place on the hunt, beside the trout stream, on the cattle-cars and cattle-ships—ten thousand to one of the cruelty taking place in laboratories.

I would like to know how many of our good friends have delighted to take the rod and play with a trout on a hook, as a cat would play with a rat before killing it. We know it is the nature of the cat to prolong the agonies of her victim, but she is not alone in this quality.

How many gamblers break a leg of their game, or inflict some other painful wound, and have no compunction over it, except the regret that they did not get the game? But this is *sport*, and should not be interfered with; while the use of animals to establish facts which save human lives *must be stopped!*

Faulty Education and Insanity

KARPAS, of New York, in a paper read before the Medical Society of the Manhattan State Hospital, on the causes of dementia præcox, has this to say regarding the influence of faulty education on the production of youthful insanity:—

“Faulty systems of education, as well as mental surmenage, are contributing factors to all forms of adolescent insanity.” He then quotes from his own practise a case which undoubtedly is not unique, and which should give pause to overambitious educators who feel called upon to cram their particular studies into unwilling or unreceptive minds.

“In one of my patients, mental surmenage was regarded as an important factor in the causation of her mental breakdown. She was a young woman of eighteen, attended New York Normal College, and was apparently bright in all studies save mathematics. She had to work very hard in order to keep up with

the class. She at last failed in this subject in her examination. The overexertion of mental effort, associating with the worry over failure in examination, caused her mental breakdown. She could have been saved if the pedagogues had not attempted to force upon her a subject for which she showed no inclination.”

Many observers have ascribed mental and nervous troubles to the overburdening of school life. On the one hand, the complexity of modern civilization is forcing additional subjects and topics into the school curriculum, increasing the burdens of the students: on the other hand, the general conditions of life have left many children with a diminished nerve force with which to cope with the increased burdens. Connected with the educational system should be men trained in the knowledge of the human body and mind, with authority to protect inefficient and weakling children from the rigors of an inelastic curriculum.

Absurdity in Medical Research

WE have withheld comment on the conjunctival tubercular reaction, though from the first it seemed to us that many physicians showed more zeal than consideration for their patients in adopting this new diagnostic procedure. We are glad to give space to the editorial comments which appear in a recent issue of the *Medical Record*:—

“Whatever may prove to be its final value in the recognition of cases of tuberculosis not diagnosed by the older methods of procedure, it was self-evident from the start that the use of the conjunctival membrane [the membrane that covers the eyeball and lines the eyelids] for

testing the effect of tuberculin must be connected with grave danger to the patient, a most delicate and most important organ of the body being exposed to injury or destruction by any unexpected severity of the reaction. Yet current medical literature was flooded for a time with papers recounting many healthy and diseased persons upon whom the reactions were tried, even though the very first publications showed that, to be of scientific value, such work had to be done in institutions where the opportunities of verifying the clinical diagnoses by pathological examinations were frequent, where time and means were abun-

dant to carry out the older methods of diagnosis properly, and where it was possible to follow the patient carefully so as to institute immediate treatment if the reaction was becoming dangerous to his vision. . . . That the great majority of patients on whom the ophthalmoreaction was tried were kept in ignorance of the meaning of the reaction as well as of the risks of it, is, of course, probable; for every possible clinic and hospital material was utilized in getting up papers on the subject. It would seem that an attitude toward such patients was called for that was more in agreement with the golden rule."

We fear that "the zeal of the physician to discover new facts in the science of medicine" has sometimes run away with his better judgment; and that "the

desire to figure in literary discussions and to be among the first to try every newly recommended procedure" has too often "overcome his sense of duty to the patient;" and that this attitude "is fraught with danger, not only to the individual physician in case of some untoward accident, but for the good repute of the whole medical profession as well."

Medical societies have done much to spur men on to earnest work, have prevented stagnation, have made for progress in all medical lines; but undoubtedly they have been the stimulus which has led unbalanced men — men ambitious for professional success, but wholly lacking in real human sympathy for the unfortunate — to make unwarranted experiments on the poor and helpless in hospitals and clinics.

Cancer

(Continued from page 143)

subacid fruits may form the exclusive diet for another week, and then the well-baked cereals may be added. The purpose is not to starve the patient, but to cleanse his tissues, and thus starve the cancer parasite. Dr. John Bell, who one hundred years ago was a professor in a leading college in London, England, wrote that careful adherence to a vegetarian dietary tends to prevent cancer. He also said that some cases that had already acquired cancer had been cured by adherence to a non-flesh dietary.

I know of persons who, after the removal of cancers, adopted a vegetarian dietary, and some of these have had no

return of the cancer. I also know of two cases that were cured by following the régime outlined here. Professor Traill, M. D., said, years ago: "In cancer the hunger cure is an indispensable auxiliary, or, rather, perhaps the leading remedial measure. Several cases are on record in which foul fungus and cancerous tumors, which had resisted caustics and the knife, were cured by a simple and strict dietary." He added, "Brown bread, parched corn, or other grain, with a moderate allowance of good fruit, and plenty of soft water for drink, constitute a dietary it would be difficult to improve upon."

Chats with our Readers

Nature Study and Health

IT may be asked by LIFE AND HEALTH readers, why this magazine departs from its custom by taking up the consideration of such a topic as nature study. Our answer must be that when we are considering this apparently foreign topic, we are pre-eminently in the line of LIFE AND HEALTH work.

In two principal ways, to which it is only necessary to allude, nature-study work is a health-giving work:—

1. When nature is studied "*in situ*;" that is, in the meadows and woods, beside the brooks and along the seashore, or under the star-studded skies, the open-air environment is an excellent one for the body.

2. Leading away from the habit of introspection to the more desirable and healthful habit of observation, it furnishes a most excellent environment for the mind.

Its tendency is to favor the development of a sound mind in a sound body, for which LIFE AND HEALTH stands.

The Agassiz Association, whose purpose is to encourage in young folks a love of methodical nature study, has recently received from a philanthropist a gift to be used in the establishment of a nature university, consisting of buildings for the work of experimenting in the growth, care, and habits of plants and animals; for the preparation of literary and illustrative material; for imparting information to amateur and professional naturalists of all ages; for the aid of nature study in the schools, and the like.

The buildings, which will be ready for occupation by April 1, will be of a temporary nature, the purpose being to maintain the "university," or colony, for a period of two years as an experiment, and to make it permanent at the end of the two years if the increased interest and the co-operation

of naturalists and other friends justify.

If this benefaction on the part of one admirer of the work of the AA is backed by the hearty co-operation of naturalists and nature students, it will greatly increase the educational power of the already very efficient association.

President Jordan of Stanford, who has given it as his opinion that the Agassiz Association is "one of the most important educational institutions in the country," and who has recently been appointed dean of the association council, has this to say regarding nature study:—

"There is no kind of intellectual training more valuable than that of learning to see what lies about us, and also what the different objects seem to signify. Every fact has a meaning. It is a part of the relation of cause and effect, and the great students of nature are those who have been able to see the fact and look behind it to the principle, or law, or cause, of which it is the visible effect."

Regarding the educational value of "commonplace nature with uncommon interest," the entomologist, Dr. Leland O. Howard, of Washington, D. C., says: "The most unobservant of persons, sitting, for example, on a vine-shaded veranda, needs only to concentrate his attention for a few minutes upon what is going on among the insects in or about the very vines that shade him, in order to become interested, and to desire to seek for an explanation of the things he sees."

It is the work of the AA and of the magazine, *The Guide to Nature*, to help people so to use their eyes that they will daily learn valuable lessons in the school of nature, and that the habit of observation will become habitual, and increasingly delightful and profitable.

An Unfortunate Condition

G. H. Heald, M. D.

Washington, D. C.

DEAR BROTHER: Noticing your article on "The Crusade Against the White Plague," I am led to think you can aid me in a matter of charity toward a very poor family living near this place, in whom I have become interested. The father is a widower, a godless man. He has three daughters, aged about nineteen, sixteen, and twelve

years. The oldest is a member of the Presbyterian Church, and is suffering with what seems to me to be consumption of the lungs. The other two appear to be in good health. The ailing one was ruddy and very healthy-looking last April or May, when I visited them. But on a recent visit I find her thin, pale, and weak, with a racking, sleep-dispelling cough, and she is in a general condition of physical wretchedness.

She tells me the trouble began with a cold contracted last June, and has been growing worse ever since. The doctors say, "Give her olive oil, and let her rest; medicine will do no good." They might as well order twenty-dollar gold-pieces, for the family is too poor to supply anything more than that well-known Southern food, "hog and hominy," which is their principal diet. Their home is a small house of three rooms, and its sanitary condition is what might be expected of a family wholly ignorant of the commonest rules of health.

Now, to come to the point: Can you give me a set of written or printed rules suitable for such a case, which the family might keep by them for reference? Such a special kindness shown them just now in their extremity, might be a great blessing to them. An early reply will oblige

Your brother in Christ,

It makes one sad to think that in this country there are thousands, like the members of this family, who must succumb to tuberculosis in the flower of their youth, because of ignorance and poverty. Probably all the girls of this family will die of consumption; for it is hardly possible that our friend can by a few visits impress upon them the necessity of such precautions as will protect the younger ones. In fact, they are probably already infected.

Without knowing more of the history of this family, I venture the opinion that the mother died of tuberculosis, leaving the children more or less infected, yet not so severely that, with proper hygienic measures, they might not have overcome the disease; yet while living where they might have fresh air and sunshine to the full (Tennessee), they are dying for the want of these agencies, and of good, nourishing food.

Friends, Take Warning

HE caught a little cold, that was all;
So the neighbors sadly said
When they learned that he was dead,
Congregating round his bed—
He caught a little cold, that was all.

He caught a little cold, that was all;
When and how he couldn't say,
Thought it soon would go away,
But the cold was there to stay—
He caught a little cold, that was all.

He caught a little cold, that was all;
He sneezed and coughed and mumbled.
In turn he swore and grumbled,
But his pride at last was humbled—
He caught a little cold, that was all.

He caught a little cold, that was all;
The cold grew quite surprising,
His temperature kept rising,
And the doctor came advising—
He caught a little cold, that was all.

He caught a little cold, that was all;
And he lay quite neatly dressed
In his very Sunday best,
In a long, unbroken rest—
He caught a little cold, that was all.

—Puck



Carnegie's Gift to Koch Institute.—Mr. Carnegie has sent through the American ambassador at Berlin, a gift of one hundred twenty-five thousand dollars to the Koch Institute.

Organized Labor Fighting Tuberculosis.—The Central Federation of Labor of Albany is preparing to erect a tuberculosis pavilion, where patients in need of treatment will be received whether they are members of a labor union or not.

Cancer Comes From Earthworms.—At least a Buffalo doctor thinks so. Dr. Walker believes the angleworm is the specific source of cancer, and that, crawling over cabbages, turnips, and the like, it infects them, and these vegetables, eaten raw, cause cancer in man.

Massachusetts Alive on the Playground Question.—In the recent elections in this State twenty-five cities voted on the question of playgrounds, and all but two decided to provide these public improvements by municipal appropriation. This action places Massachusetts in the lead of the States in the playground movement.

Girl Gets Hydrophobia From Horse.—From Alabama comes the information that Miss Ruby Green, a farmer's daughter, has died of hydrophobia. Mr. Green had a horse bitten by a mad dog, and later the horse, becoming rabid, was shot. Miss Green had an abrasion on her left wrist, which in some way was infected while she was around the horse.

Leprosy in the Hawaiian Islands.—According to a recent bulletin (U. S. P. H. and M. H. S.) leprosy is on the increase not only among the natives, but also among the foreign population, though principally among the Portuguese and the Japanese, who come from countries where leprosy is prevalent. The effort to control the disease by segregation has evidently met with negative results. It appears that some patients may have leprosy as long as four years before it is detected, and during that time they may be active transmitters of the disease.

Tuberculosis Exhibition Closes.—The exhibition which was transferred from the International Congress on Tuberculosis, held at Washington, D. C., to New York City, was closed January 17. It was open forty-nine days, and during this time was visited by seven hundred fifty thousand persons. The largest daily attendance was more than sixty-three thousand.

Hardening of the Arteries From Dietetic Errors.—Recent animal experiments show that certain articles, if taken into the alimentary canal, including putrid meats, lactic and oxalic acids, extracts of poisonous fungi, ergot, and theobromin, hasten the hardening of the arteries. The latter would indicate an additional danger from the use of chocolate candies, and chocolate or cocoa as beverages. In this series of experiments, alcohol and coffee did not seem to have a hardening effect on the arteries.

To Stamp Out Tuberculosis in New York.—According to the report of the New York State Board of Charities, New York State alone loses sixty-three million dollars a year through tuberculosis. At a recent meeting held under the auspices of the Association of Tuberculosis Clinics, Governor Hughes pleaded for a more thoroughgoing organization to stamp out the disease. Among the remedies he suggested was an increase of hospital facilities for advanced cases, in order to remove centers of infection.

A New but Unapproved Method of Using Tobacco.—A Baltimore dentist took some tobacco decoction in place of tobacco, and is blind. His wife, in preparing his morning drink, inadvertently put her hand into the tobacco sack instead of into the coffee sack. The dentist, having been used to strong flavors, did not appreciate the difference until he had drunk one cup, when he was taken violently ill, and within three hours was totally blind. Here was a man accustomed to the use of tobacco, stricken with total and perhaps irreparable blindness by an overdose, and yet some would have us believe that tobacco is not only harmless, but beneficial.

Free Feeding for Hungry Schoolchildren.—The London County Council has finally decided to appropriate fifty thousand dollars to provide meals for underfed schoolchildren. This work, as heretofore done by charity organizations, has been inefficient.

Growth of the Opium Habit in France.—The opium habit has been making rapid progress, especially in the garrison ports, and in Paris. The minister of the interior recently issued a drastic decree regulating the sale of opium and its products.

Proprietary Lactic Acid Cultures.—A recent investigation goes to show that there is no proof that the Bulgarian lactic-acid germ is superior to that in ordinary sour milk, and that some of the advertising matter used to push the proprietary preparations is preposterous.

Frequency of Tuberculosis.—A report of 287 autopsies in Panama showed that 213, nearly seventy-five per cent, had tubercular scars, though only twenty-one, or one in fourteen, died of tuberculosis. That is, there were ten who had tuberculosis and died of something else to one who died of tuberculosis. The presence of pleural adhesions was very frequent—in sixty-five percent of the cases, in fact.

A Negro Anti-Tuberculosis Congress.—The negroes, the greatest sufferers from tuberculosis, have held an anti-tuberculosis convention in Tuskegee, from which it is hoped much will be accomplished in the way of lessening tuberculosis among the people of this race.

Injury From Night Work.—Experiments having proved a reduction in blood-iron in workmen deprived of sunlight, the International Congress for Occupation Diseases has passed a resolution that no female, and no male under eighteen years, ought to be permitted regularly to engage in night occupation. Men compelled by necessity to work at night should have frequent medical examination, change of schedule, and periods of vacation.

Prohibition in Tennessee.—The prohibition fight in Tennessee has been an exciting one. With galleries packed almost entirely by prohibitionists, both houses of the legislature passed the bill for State prohibition. This was vetoed by the governor, who said he would not approve a law which would reduce the revenue, increase taxation, foment discord, foster hypocrisy, and bring women into the political arena. The legislature passed the bills over the governor's veto.

LISTERINE

The original antiseptic compound

Awarded Gold Medal (Highest Award) Lewis & Clark Centennial Exposition, Portland, 1905; Awarded Gold Medal (Highest Award) Louisiana Purchase Exposition, St. Louis, 1904; Awarded Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris.

The manufacturers of Listerine are proud of Listerine—because it has proved one of the most successful formulæ of modern pharmacy.

This measure of success has been largely due to the happy thought of securing a twofold antiseptic effect in the one preparation, i. e., the antiseptic effect of the ozoniferous oils and ethers, and that of the mild, non-irritating boric acid radical of Listerine.

Pharmaceutical elegance, strict uniformity in constituents and methods of manufacture, together with a certain superiority in production of the most important volatile components, enable Listerine to easily excel all that legion of preparations said to be "something like Listerine."

Literature more fully descriptive of Listerine may be had upon request, but the best advertisement of Listerine is—**LISTERINE**.

Lambert Pharmacal Company, St. Louis, U. S. A.

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

\$10 PER DAY EASILY EARNED AS A PIANO TUNER
The Tune-a-Phone Does It.

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 our handsomely illustrated free catalogue.

Niles Bryant School of Piano Tuning
 44 Music Hall, Battle Creek, 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.

PURE PEANUT BUTTER

Is recognized as the most nourishing and most healthful of foods for all people alike.

Our improved machinery enables us to furnish the highest grade Peanut Butter at the exceptionally low price of 12c per pound in 20, 25, and 50 pound cans; 5 and 10 pound pails, 15c per pound. We prepay freight on orders of a hundred pounds or more to all ports east of the Mississippi and north of Tennessee; we allow special discount depending on distance of shipment. Send for trial can, post-paid, for 10 cents. **St. LAURENT BROS., 1221 Saginaw St., Bay City, Mich.**

Announcement

I wish to announce that I have resigned from the general management of the "Good Health" magazine of Battle Creek, Mich., which position I have held for the past three years, to take the advertising management of LIFE AND HEALTH and allied publications. I desire to express my gratitude to old friends for their kindness in the past and to solicit their continued favors. To new associates and to all advertisers I can promise my best efforts to provide as thoroughgoing and up-to-date an advertising service as it is possible to give.

Yours Sincerely,

R. O. EASTMAN, Adv. Mgr.

Battle Creek, Michigan or Washington, D. C.

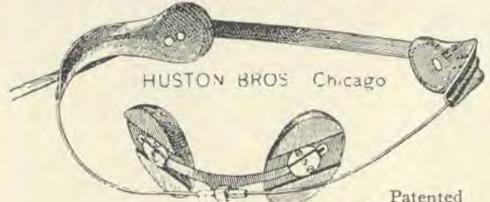
THE DEAD

DO NOT NEED THIS AD, BUT ALL LIVE PEOPLE WHO ARE RUPTURED SHOULD READ IT CAREFULLY

There is one really scientific truss on the market. Other so-called "trusses" are mere clamps. Our *Huston Automatic Truss* is scientific because it applies slight pressure to the hernia only, also because it allows 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

Patented
 Sept. 7, 1897

FRONT VIEW

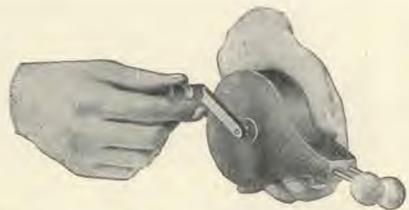
Of course, we can not convince you of the truthfulness of our claims unless you are willing to test them. Are you willing to give us a chance? Will you write us to-day?

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

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

HUSTON BROTHERS, 31-39 Randolph Street,
 CHICAGO, ILL.

Makers of Trusses, Abdominal Supporters, Deformity Apparatus, etc.



Midget Massage Vibrator

Patent Applied For

Operated in any place without electricity of any kind, giving up to 10,000 massage strokes a minute. Will last a lifetime. Agents wanted in every place.

We make Violet Ray Lamps for Doctors, Nurses, and the Home. Send for folder.

Radiodescent Lamp Co.

102 South, - - Kalamazoo, Mich.

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

A PURER ARTICLE OF FOOD CANNOT BE MADE

NATURE'S UNCOOKED FOOD

FRUIT CAKE

MAINTAINS HEALTH SUSTAINS LIFE PERFECTLY

L. LUST'S HEALTH FOOD BAKERY

NEW YORK, U.S.A.

Nuts, Fruits, and Crushed Grains, scientifically combined, form the natural live ingredients of this famous Food Product. Neither of the ingredients has been subjected to fire or heat to lessen its life-sustaining value. Eaten daily it will effect a wonderful change in all cases of Constipation. All ready to eat. Let it be your breakfast for one week. Keeps good for one year. 35c per pound; by mail, 51c; 5 pounds, express prepaid to any address in the U. S., for \$2.

LUST'S HEALTH FOOD BAKERY
100 E. 105 Street, New York City.

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.

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.

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 INTEREST YOU? "My sales \$1281.00 one month, \$1118.00 another. Best thing ever sold. Not one complaint from 2000 customers." **SWORN STATEMENT BY 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 plus 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 competitor—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 ANHOW.**

THE ALLEN MFG. CO., 1494 ALLEN BLDG., TOLEDO, OHIO.



"SEE IT ENERGIZE."

Sec. view Comb. Portable and Bathroom Outfit.

CONSUMPTION

ITS PREVENTION AND CURE

Without Medicine, Showing the Twentieth Century Methods of Combating This Disease, With a Chapter on Prevention of Consumption and Other Diseases

By Charles H. Stanley Davis, M. D., Ph. D.

Member of the Connecticut State Medical Society; Physician to the Curtis Home for Old Ladies and Children, Meriden, Conn.; Author of "The Training and Education of Feeble-Minded, Imbecile, and Idiotic Children;" etc.

There is not a shadow of doubt that consumption can be practically stamped out, as have been typhus fever, Asiatic cholera, yellow fever, leprosy, and smallpox. The civilized world is being aroused to the necessity of increased and well-directed action against the continued spread of this insidious disease, as well as toward its cure. The idea that consumption is an incurable disease is still widely prevalent among the people.

The object of this book is to show how, from its first beginnings to its last stages, before actual decay of the lungs takes place, it can be cured in at least 95 per cent of the cases, and this without the use of medicine. It contains the results of the most prominent sanatorium methods in this country and in Europe, with many of which the author has a personal acquaintance.

Second Edition. Revised and Enlarged; 12 mo, 216 pages, cloth, post-paid, \$1

Life and Health

Takoma Park Station,

Washington, D. C.

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

The Practical Guide to Health



By F. M. ROSSITER, M. D.

A Practical Work on Anatomy,
Physiology, and Hygiene . . .



HEALTH is one of the great foundation stones in every successful career. It comes as the result of obeying the laws which govern our bodies, just the same as liberty is the result of obeying the laws which govern the United States. To gain a knowledge of these laws and know how to direct the life in harmony with them is the duty of every individual. In this "Practical Guide to Health" will help you.

A Physiology The first part of the book is given to the study of anatomy, physiology, and hygiene. The facts are clothed in fascinating language, which holds the attention and leaves a lasting impression on the mind. The work was written by a practising physician of wide and varied experience both in private business and as head of a successful sanitarium.

A Text-Book It is invaluable as a text-book for nurses, combining, as it does, the study of physiology, anatomy, and hygiene with a short course in diseases and their treatment. This makes the book equally important for either the trained nurse or the undergraduate.

A Family Guide In the home it will be found a valuable aid in case of accidents, emergencies, and common household complaints. The symptoms and treatment of all common ailments are given, and a complete index records the symptoms of each disease.

The book contains 635 pages, seventy half-tone illustrations, and twelve colored plates.

Cloth, marbled . . .	\$3.00	Full law sheep . . .	\$4.00
Persian morocco . . .			\$5.00

REVIEW AND HERALD PUBLISHING ASSOCIATION

Takoma Park, Washington, D. C.

NEW YORK CITY

SOUTH BEND, IND.

Home *and* Health

A BOOK TRUE TO ITS
TITLE—A HOME-MAKER AND A
HEALTH-RETAINER



It embraces "The Home,"—how to make it; "General Housekeeping,"—all of its details; "The Diet,"—what it should be; "The Care of the Body,"—revealing the simple things one must do to keep the body healthy; "The Care and Training of Children,"—sound common sense for parents; "The Home Treatment of Disease,"—a valuable instructor, doctor, and nurse.

It reveals some of the most practical means by which we may make our homes in every way desirable.

It gives the message of health, which is due just now in all the world.

It tells us how to live a plain, happy, consistent, simple life.

It imparts information that will prove to be practical in the mechanical construction of homes.

It enables the reader to apply many of the remedies of nature in the treatment of common diseases.

It will lighten the labors of many an overburdened housekeeper through practical suggestions on the practical features of housekeeping.

It will prove to be an all-round valuable counselor in every feature of home life.

It is in truth a book of real merit and practical value.

It is that kind of book that never causes the purchaser to regret buying it.

It is bound in the following styles:—

Cloth, Marbled Edges - - - \$3.00

Full Law Sheep - - - - 4.00

Full Morocco - - - - 5.00

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

WING PIANOS

Ask a Hearing

and --- Nothing More!

YOURSELF AND YOUR FRIENDS THE JUDGE AND JURY

EVEN IF YOU ARE NOT MUSICAL, the Wing Piano will be sent to you on trial without the payment of even one dollar. We deliberately claim that the 21 largest styles of Wing Pianos have the most majestic tone under heavy playing and the sweetest tone under light playing of any upright pianos whatever, irrespective of the price or maker.

We would not (and could not if we would) thus address millions of the most cultivated and intelligent readers in the U. S., spend *thousands* in magazines publishing such a challenge, and *more thousands* in R. R. freights, if we were wrong in our statements or over-conceited about the tone quality of the Wing Piano.

For we are neither young nor trifling. We have been nearly half a century in the piano business, and during all of forty years have been scientifically studying tone and durability in preference to dollar making. This is the reason why the Wing Pianos ring with music.

The forty years' business experience has *also* taught us to weigh our WORDS carefully whether printed or spoken. Our WORD, black on white and over our name (which will be found at the foot of this notice), is that the Wing Piano is the sweetest of all in tone.

Our commercial standing and references will guarantee you that our WORD is good and contract gilt-edged. The publishers of any prominent magazine will also tell you this. Read this exact copy of one of our trial blanks:



Also 23 Other Styles

TRIAL BLANK

WING & SON, New York.

Gentlemen--You may ship me on trial one Wing Piano of the above style with stool and scarf, to this address: Town.....State..... with freight from New York prepaid in advance, and send me an order to get it from the railroad depot, **ON TRIAL ONLY. THERE IS NO AGREEMENT BY ME TO PURCHASE THIS PIANO,** but I will allow it to remain in my home on trial for twenty days, and if it proves satisfactory and I conclude to purchase it, I will make an agreement with you to pay you \$..... in the following way:..... The piano to become my property upon completion of full payment as above.

If, however, the piano does not prove satisfactory, I will return it to the railroad depot. I am to be under no obligation to keep this piano. In all respects the conditions are to be the same as if I were examining it in your warehouse. It is distinctly understood that I am to be **AT NO EXPENSE WHATSOEVER FOR FREIGHTS COMING OR GOING.**

Yours respectfully.....

We Refuse to Sell Through Dealers

Their profits would double the price of the WING PIANO. Buy without the dealers' profits!

You Save From \$75 to \$200

when you buy a WING PIANO; for you buy direct--absolutely. You pay the cost of building it with only one moderate profit added.

With railroads everywhere, and business of all kinds done by mail, the piano dealer or agent is now *unnecessary*. As the cheap kinds cost less than half, the dealers "talk up" and push the cheap pianos--but often call them high grade.

You Need these Books--They are FREE

We send two good books, "The Book of Complete Information About Pianos" is a Complete Reference Book on the Piano. Technical Descriptions--Illustrates how all pianos are made--With large lithographed pictures of 1908 models of WING PIANOS--Difference between excellent materials and labor and cheap substitutes--Reveals agents' methods, etc. A handsomely illustrated book of 162 pages.

THE WING PIANO is broadly guaranteed in writing for 12 years.

Wing & Son, 361-380 W. 13th St., New York

Write for the books and Wing Catalogue at once, or fill in the coupon. Cut or tear it out and mail to us now while you think of it (and while you have the coupon.) You will be under no obligations whatever.

The Instrumental Attachment

is added to certain styles when ordered. It produces almost to perfection the tones of the Harp, Zither, Banjo, Guitar and Mandolin. It saves wear and prolongs the life of the Piano. The usual playing of the keys operates the Instrumental Attachment.

Easy Payments Accepted

and old pianos and organs taken in part exchange.

WING & SON

361-380

W. 13th St. New York

Send to the name and address written below, the "Book of Complete Information about Pianos," "Story Book" and catalogue, without any cost or obligation on my part.

A PIN MAY BE USED TO CUT ALONG THIS LINE

The Speaker's Manual of Pronunciation



Cloth, 25 cents

A Man of Valor



Cloth, 75 cents

THIS work is intended primarily as a text-book to be used in class-study of pronunciation, but is equally valuable to every one who speaks the English language, whether minister, teacher, or student.

Mispronunciation is often the result of carelessness or simply the following of some one else who does not speak correctly. To correct the most common errors, and to present, in convenient form, a list of the words most often mispronounced, is the object of "The Speaker's Manual."

The book contains over two thousand words. The familiar diacritical marking is used throughout.

Part of the work is devoted to "Rules for Spelling," "Exercises in Enunciation," "Homonyms," and "More Than Half a Hundred Don't's." The suggestions under the last head are invaluable to those who wish to be accurate in their choice of words. Many common expressions pass as correct when they are really wrong. Those who are careful in their choice of words will avail themselves of every opportunity to add to their knowledge of the language.

"The Speaker's Manual" contains 127 pages, size $3\frac{5}{8} \times 5\frac{3}{4}$ inches. It can easily be slipped into the pocket for ready reference.

EVERY young person appreciates an interesting story, especially if the story is true. As a treasure-house of true stories and wholesome literature, the Bible is unequalled. In no other book are the high ideals and the essential qualities of a noble character so ably presented as in the lives of the men and women of the Bible.

Jonathan is the hero of the book, "A Man of Valor." Around the narrative of his life have been grouped the stirring events of his father's reign, his friendship with David, and, in fact, the general history of Israel from Saul's anointing to the beginning of David's reign.

Any one who will call to mind the events which this period covers can see the possibilities in a book of this kind. To say that the author has written an excellent and instructive narrative is putting it far too mildly. The story is fascinating, the descriptions are faultless; but despite this there is no fictitious name nor character introduced into the book.

Aside from its value as a connected story, the volume will be found to contain a wealth of historical facts, a good grasp of the social and political conditions, and an insight into the religious rites and ceremonies of ancient Israel, which throw added light on other portions of the Old Testament. We feel safe in saying that "A Man of Valor" will prove one of the most popular books that we have issued.

Review and Herald Publishing Association, - Washington, D. C.

GLENDALE SANITARIUM

S. D. A.

Glendale, Los Angeles,
California



BEAUTIFULLY SITUATED AT GLENDALE, 25 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 of the seasons, so dreaded in the East, are absent. THE PLEASANT WINTER is heralded by beautiful green on hillside and plain, flowers abound uninjured; 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 catalogue 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 catalog, P. 12, containing rates and full information.



LOMA LINDA SANITARIUM

S. D. A.

Loma Linda,
California



¶ Loma Linda is not a city or a village. It is a well-equipped country sanitarium, with its own private station, livery, dairy, orchard, gardens, groves, parks, and pleasure grounds. It is situated in one of the most beautiful valleys of Southern California, on the main line of the Southern Pacific Railroad.

¶ Here the patient can enjoy outdoor life almost every day of the year. Those visiting southern California in search of better health should stop at the Loma Linda Sanitarium. Send for booklet C.

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.



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.

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