

Life & Health

THE NATIONAL HEALTH MAGAZINE.



10 Cents a Copy

MAY, 1912
Washington, D. C.

\$1.00 a Year



You should keep a case of WELCH'S in the house all the time. You will find a way to serve it for every social occasion. Our special booklet of recipes, sent free on request, tells how to make many delicious drinks and dainty desserts.

Welch's

The National Drink
Grape Juice

Luscious, purple October Concord grapes go through our presses—the fine juice is bottled. You catch the aroma—taste the deliciousness—almost see the grapes—when you drink WELCH'S.

For Dessert—Welch's Grape Ice Cream

One pint WELCH'S, one quart fresh cream, one pound granulated sugar. Bring one-half cream to a boil in a double boiler and add the sugar. When cool add other half of cream and the WELCH'S. Then freeze.

To flavor mince pie simply use WELCH'S instead of brandy. It is delicious.

Do more than ask for "grape juice"—ask for Welch's —and get it

If unable to get it of your dealer, we will send a dozen trial pints for \$3, express prepaid east of Omaha. Four-ounce bottle by mail, 10 cents.

The Welch Grape Juice Co.
Westfield, N. Y.



Mt. Vernon Medical and Surgical Sanitarium

An Institution Centrally Located in the Most Healthful Portion of the State

¶ Equipped with modern appliances for surgical work and the treatment of chronic disorders. ¶ Latest improved apparatus for Hydrotherapy, Electrotherapy, Phototherapy, Mechanotherapy, Massotherapy. ¶ Physiologic System of Treatment and Diet fully carried out in the institution. ¶ Pleasant Rooms; Elevator; Hot-Water Heating System; Natural Gas; Quiet, Secluded Grounds; Christian Attendants of both sexes. ¶ Noted Medicinal Springs in the immediate vicinity. ¶ Offensive patients not received in the building. ¶ Write for information.

MT. VERNON, OHIO

THIS BOOK IS WORTH YOUR EVENING HOURS



"The Desire of Ages," by Mrs. E. G. White, is a complete, beautifully written life of Christ from the pen of an author whose writings are highly prized in hundreds of thousands of homes throughout the world. Once the reader becomes acquainted with this work, no study of the life of Christ is complete without it. Contains 900 pages and nearly 400 illustrations. In cloth, \$3. Full morocco, \$6. Review and Herald Pub. Assn., Washington, D. C.





For detailed information, and illustrative literature, address the manager

Loma Linda Sanitarium, Loma Linda, California

For landscape beauty, productive soil, ideal climate, and scenic grandeur of a commanding elevation, the matchless location of the

Loma Linda Sanitarium

is one of the most perfect to be found in the world. Its full corps of **Competent Physicians** and **Skilful Surgeons**, with well-trained attendants; its complete **Scientific Equipment** for the administration of the various kinds of **Electric, Hydratic, and Therapeutic Treatments**; its **pure, wholesome food** from its own **orchards, gardens, bakery, and dairy**, with its specially appointed **dietary, and unexcelled cuisine**, offer a combination of advantages for those in search of rest and health, not to be found in the best resorts of this country or Europe.

The exceptional climate, moderate elevation, low humidity, comfortable rooms, polite service, moral atmosphere, and the hopeful uplift to its guests, together with the acquired advantages of scientific research in remedial and curative art, form an unmatched combination to aid in the restoration and preservation of good health.

Good Things to Eat

Nearly 500 of the choicest vegetarian recipes ever gathered together. Contains a variety of recipes for Bakery and Breakfast dishes, Beverages, Cakes, Cereals, Egg dishes, Entrees, Nut Butter, Pies, Puddings, Salads, Salad Dressings, Soups, Sauces, Toasts, and Vegetables. No other work of the kind can take its place.

THE VEGETARIAN COOK-BOOK

By E. G. FULTON

This cook-book is thoroughly practical, and can be used successfully by housewives who have had no previous experience with vegetarian cookery, while it is an indispensable part of the equipment of the professional cook.

Neatly bound in gray cloth. Contains over 250 pages. Price, post-paid, \$1.00.

LIBERAL TERMS TO AGENTS

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

Broadway Central Hotel

Broadway, Corner Third Street

IN THE HEART OF NEW YORK

Only Medium Price Hotel left in New York
Special Attention Given to Ladies Unescorted

SPECIAL RATES FOR SUMMER

Our table is the foundation of our enormous business

American Plan, \$2.50 upward
European Plan, \$1.00 upward

Send for Large Colored Map of New York, FREE

DAN. C. WEBB, Proprietor

The Only New York Hotel Featuring
American Plan

Moderate Prices. Excellent Food. Good Service.

Our General Agencies

Kindly order "Life and Health" or any other publication advertised in this magazine from our agency nearest you.

See alphabetical list below:—

- Alabama Tract Society, Fort Payne, Ala.
Alberta Tract Society, Box 7, Lacombe, Alberta.
Arizona Tract Society, Box F, Phoenix, Ariz.
Arkansas Tract Society, Box 66, Fayetteville, Ark.
British Columbia Tract Society, 1708 Maple St., Vancouver, B. C.
California Bible House, 2201 Telegraph Ave., Oakland, Cal.
California-Nevada Tract Society, 332 East Pine St., Lodi, Cal.
California Bible House, Central, Box 1304, Fresno, Cal.
California Tract Society, Southern, 424 South Broadway, Room 1018, Los Angeles, Cal.
Canadian Publishing Association (Eastern Canada), Port Hope, Ontario.
Chesapeake Tract Society, 2 Loudon Ave., Station D, Baltimore, Md.
Colorado Tract Society, Eastern, 1112 Kalamath St., Denver, Colo.
Colorado Tract Society, Western, 122 South Eighth St., Grand Junction, Colo.
Cumberland Tract Society (Eastern Tennessee), 1209 Chamberlain Ave., Chattanooga, Tenn.
District of Columbia Tract Society, Room 708 McLachlen Building, 700 Tenth St., N. W., Washington, D. C.
Florida Tract Society, Drawer 28, Orlando, Fla.
Georgia Tract Society, 169 Bryan St., Atlanta, Ga.
Hawaiian Tract Society, 767 Kinau St., Honolulu, H. T.
Idaho Tract Society, Box 43, Boise, Idaho.
Illinois Tract Society, Northern, 440 South Dearborn St., Chicago, Ill.
Illinois Tract Society, Southern, 304 West Allen St., Springfield, Ill.
Indiana Tract Society, 521 East Twenty-third St., Indianapolis, Ind.
Iowa Tract Society, Nevada, Iowa.
Kansas Tract Society, East, 821 West Fifth St., Topeka, Kans.
Kansas Tract Society, West, 508 Fifth Ave., East, Hutchinson, Kans.
Kentucky Tract Society, 1410 Beech St., Louisville, Ky.
Louisiana Tract Society, 810 Jackson Ave., New Orleans, La.
Maine Tract Society, 1377 Washington Ave., Woodfords Station, Portland, Maine.
Manitoba Tract Society, Box 104, Portage la Prairie, Manitoba.
Massachusetts Tract Society, South Lancaster, Mass.
Michigan Tract Society, East, Holly, Mich.
Michigan Tract Society, North, 510 Petoskey St., Petoskey, Mich.
Michigan Tract Society, West, Otsego, Mich.
Minnesota Tract Society, 336 East Lake St., Minneapolis, Minn.
Mississippi Tract Society, 932 Union St., Jackson, Miss.
Missouri Tract Society, Northern, Utica, Mo.
Missouri Tract Society, Southern, 520 West Lynn St., Springfield, Mo.
Missouri, St. Louis Tract Society, 4419 Cote Brillante Ave., St. Louis, Mo.
Montana Tract Society, 411 Black Ave., South, Bozeman, Mont.
Nebraska Bible Supply House, 905 North California Ave., Hastings, Nebr.
Nevada (See California-Nevada Missionary Society).
New England Tract Society, Northern, Belkows Falls, Vt.
New England Tract Society, Southern (Rhode Island and Connecticut), 51 Whitmore St., Hartford, Conn.
New Hampshire (See Northern New England).
New Jersey Tract Society, 1909 South Clinton Ave., Trenton, N. J.
New Mexico Tract Society, Box 286, Albuquerque, N. Mex.
New York Tract Society, Greater, Room 904, 32 Union Square, New York, N. Y.
New York Tract Society, 317 West Bloomfield St., Rome, N. Y.
New York Tract Society, Western, 8 East Jefferson St., Salamanca, N. Y.
North Carolina Tract Society, 940 Silver Run Ave., Greensboro, N. C.
North Dakota Tract Society, Box 285, Fargo, N. Dak.
Ohio Tract Society, Box 187, Mt. Vernon, Ohio.
Oklahoma Tract Society, P. O. Box 1198, Oklahoma City, Okla.
Oregon Missionary Society, Western, 508 East Everett St., Portland, Oregon.
Oregon Tract Society, Southern, Box 148, Roseburg, Oregon.
Pennsylvania Tract Society, Eastern, 4910 Arch St., Philadelphia, Pa.
Pennsylvania Tract Society, Western, 7049 Hamilton Ave., Pittsburgh, Pa.
Saskatchewan Tract Society, Box 244, Regina, Sask., Canada.
South Carolina Tract Society, R. F. D. 5, Spartanburg, S. C.
South Dakota Tract Society, Box 395, Redfield, S. Dak.
St. Louis Tract Society (See Missouri).
Tennessee River Tract Society (Western Tennessee), 511 Cole Building, Nashville, Tenn.
Texas Tract Society, Keene, Tex.
Texas Tract Society, West, Abilene, Tex.
Utah Tract and Bible Society, Room 6, Eagle Block, Salt Lake City, Utah.
Vermont (See Northern New England).
Virginia Tract Society, 1615 West Main St., Richmond, Va.
Washington Missionary Society, Western, 1407 East Forty-first St., Seattle, Wash.
Washington, Upper Columbia Tract Society, College Place, Wash.
West Virginia Tract Society, 411 Main St., Fairmount, W. Va.
Wisconsin Tract Society, Box 57, Grand Rapids, Wis.
Wyoming Tract Society, Crawford, Nebr.

LIFE AND HEALTH

TAKOMA PARK,

WASHINGTON, D. C.

IS HEALTH LONG BEACH SANITARIUM

Worth Anything to
YOU?



At beautiful Long Beach, California's foremost Health Resort in physiological and dietic methods. Very latest Battle Creek Sanitarium methods of treatment. A specialty is made of scientific electrical treatments of every description. Electrical equipment the finest on the Pacific Coast. New pressed brick building. Every modern convenience. Modern treatment-rooms. All kinds of baths. Gentleman and lady physicians (graduate nurses only). Many miles of beautiful macadamized streets where guests can enjoy long walks, riding, driving, motoring. Tennis, golf, boating trips, and the most delightful all-the-year-round SURF BATHING in the world. South from Los Angeles 23 miles but much WARMER in winter. ALWAYS COOL in summer. Pacific Electric, Salt Lake, Southern Pacific Rys. Steamship lines. The ideal place to rest, recuperate, and build up permanent health. Reasonable rates. Free Booklet. W. Ray Simpson, Mgr., Long Beach, Cal.

The Instructor Temperance Annual for 1912

Attractive in appearance and strong in content. The best campaign document ever published.

Composed of pointed, convincing facts on the evils of intemperance, in the form of statistics, experiences, and true stories, furnished by the best temperance workers in the country.

Supplied in lots of 5 to 40 copies, one address, 5 cents a copy; 50 or more copies, one order, one address, 4 cents a copy.

Temperance Annual - - Takoma Park, D. C.



Easy Steps in the Bible Story

A very entertaining and instructive volume for children

Beginning with the story of creation, connected stories of special events and the lives of prominent characters down to the close of the life of Christ are told in a most charming way. No child can read these stories without being helped in the forming of strong character.

This book is just from the press, and is destined to be one of the most popular juvenile books that has ever been published.

It has 88 beautiful full-page illustrations, of which 19 are in colors, besides a small picture on nearly every page.

A THOUSAND AGENTS WANTED

Send for sample pages, and order a prospectus at once.

This book is sure to please. Several years have been spent in its preparation. Neither time nor expense has been spared in making it "a book of art;" and the stories are more interesting than novels, and every one of them is true.

Over 600 pages. Prices and styles as follows:—

Cloth, marbled edges	\$3.00
Half morocco, marbled edges	4.00
Full morocco	5.00

Review & Herald Publishing Association, Washington, D. C.

THIS ISSUE

¶ The article on "Bournville, the Garden Village," is the first of a series intended to familiarize our readers with one method by which the standard of living is raised in certain places for British workmen. Americans should give closer study to the practical manner in which the British are solving some perplexing problems, among them this one of housing.

¶ Dr. Alfred B. Olsen, graduate in public health, editor of the most popular of British health magazines, author of health books, popular lecturer and writer, begins in this issue a series of instructive and valuable articles on the prevention and treatment of tuberculosis.

¶ Dr. George Wharton James, by means of his word-pictures, carries his readers with him through varied Western scenes, and incidentally inculcates spiritual truths, which, though strange to conventional man, are axiomatic to the man in touch with nature. There is a Western vigor and freshness about the out-of-doors series that always charms.

¶ Dr. William J. Cromie, an experienced instructor in gymnastics in the University of Pennsylvania, gives in "Keeping Young in Looks" some instruction to women which is intensely practical because it is so simple that every woman can carry it out, and so efficient that no woman can seriously follow Mr. Cromie's directions without great benefit. Considering two facts, that women are rarely indifferent to their looks, and that to a certain extent a woman's looks depends upon her own efforts, is it not strange that there are so many homely women? Readers of LIFE AND HEALTH are, of course, by courtesy excepted.

THE NEXT ISSUE

¶ The Memories of God's Great Out-of-Doors, by Dr. James.

¶ Hampstead, the story of a cooperative garden suburb.

¶ Another article on The Prevention of Consumption, by Dr. A. B. Olsen.

¶ Where to Begin Conserving — outlining the activities of an agency for saving unfortunate children.

¶ Diet and Its Relation to Endurance, by a physician who is an educator and trainer of physicians.

¶ A second article on Nuts, by Mr. Cornforth.

CONTENTS FOR MAY

FRONT COVER, CALIFORNIA REDWOODS. *Courtesy of Sunset Magazine, San Francisco*

GENERAL ARTICLES	PAGE
Non-Conformities of God's Great Out-of-Doors, <i>George Wharton James</i>	264
Bournville, the Garden Village, <i>G. H. Heald, M. D.</i>	270
How to Escape the White Plague, <i>A. B. Olsen, M. D., B. Sc., D. P. H.</i>	278
Keeping Young in Looks, <i>William J. Cromie</i>	283
Faulty Foot-Wear, <i>G. H. Heald, M. D.</i>	285
 HEALTHFUL COOKERY	
Nuts, <i>George E. Cornforth</i>	287
 THE MEDICAL MISSIONARY AT WORK	
Indians Pleading for Help, <i>F. A. Stahl</i>	291
EDITORIAL	293
Public Health in Birmingham—Rural Settlement Work.	
AS WE SEE IT	296
Typhus and Typhoid—Conservation of Food Energy—Youthful Prodigies—"Prohibition Does Not Prohibit"—Lepers Isolated.	
QUESTIONS AND ANSWERS	299
SOME BOOKS	301
CURRENT COMMENT	303
ABSTRACTS	305
Health Conservation a Problem for the Whole People—Relation of the Saloon to Insanity—The Treatment of Simple Catarrh.	
NEWS NOTES	308

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.

TERMS: \$1 a year; 10 cents a copy. Special rates to agents.

POSTAGE IS PREPAID by the publishers on all subscriptions to all countries.

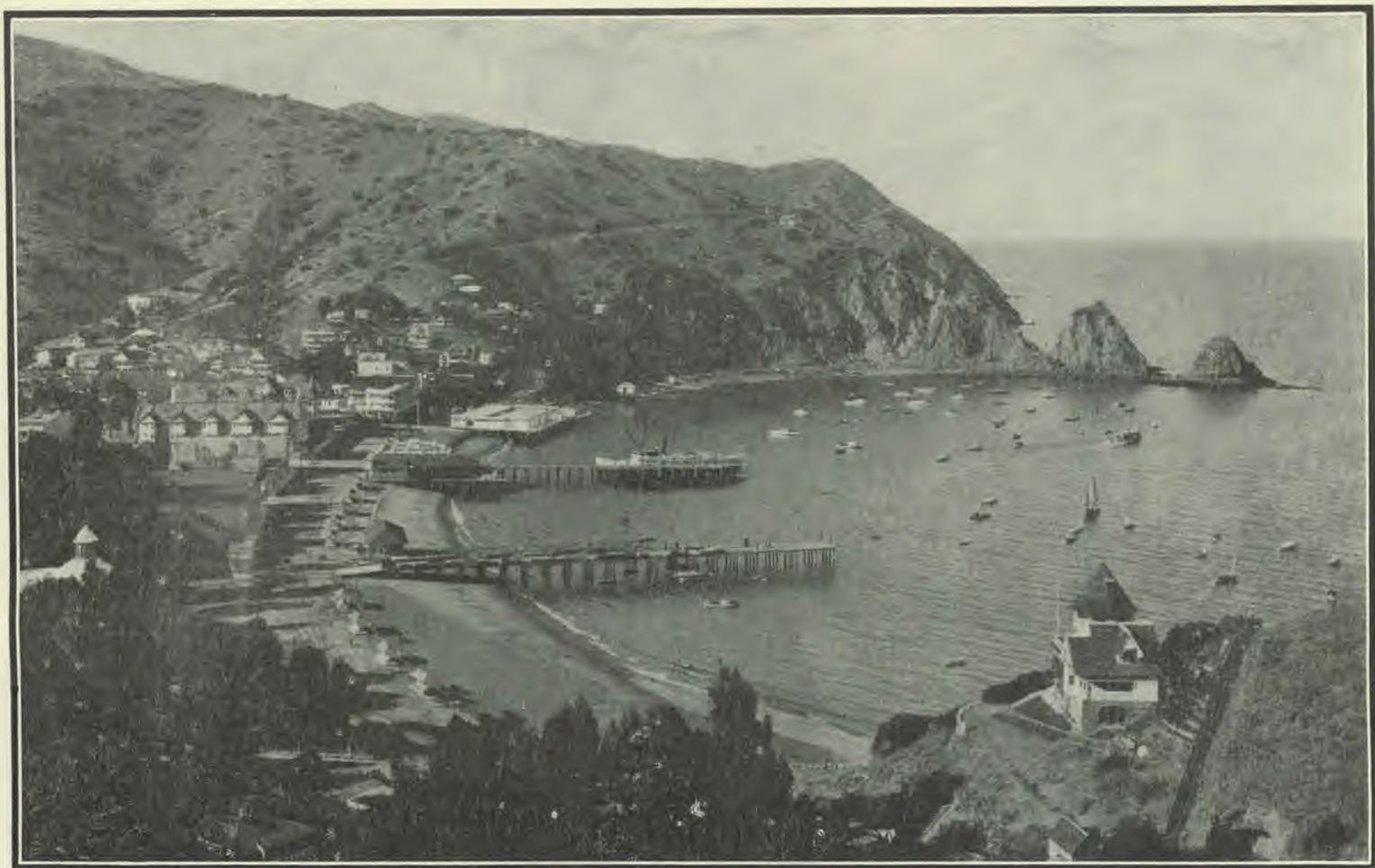
CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old address must be given.

HOW TO REMIT.—Remittances should be sent by draft on New York, Express-order, or Money-order. **Cash should be sent in Registered Letter.**

Address, **Life and Health, Takoma Park, Washington, D. C.**

We Guarantee the reliability of every advertisement inserted in **Life and Health**. We want every reader 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.



AVALON, SANTA CATALINA ISLAND, CALIFORNIA

At Avalon, on Santa Catalina Island, in the Pacific, one can bathe all the year round, and never experience any of the rude splash
and dash of the surf.

VOL. XXVII
No. 5

Life & Health

THE NATIONAL HEALTH MAGAZINE

MAY
1912

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

Published Monthly

GEORGE HENRY HEALD, M. D., EDITOR

Washington, D. C.

MORE EXTRACTS FROM LETTERS TO LIFE AND HEALTH

Excellent little journal.

✻

The April "Life and Health" is splendid.

✻

We appreciate your magazine highly. It is a faithful exponent of health principles.

✻

I have read former issues, and think I never found its equal as a temperance and health magazine.

✻

I spent three days selling 100 magazines in the cities near by, and then returned home. I sold 250 copies in one week.

✻

I shall watch the growth of your magazine, and your struggle with the large amount of undesirable competition, with very keen interest.

✻

This journal is gradually growing better each month. It is certainly one of the best of its kind published anywhere. We shall do all we can to speed forward its circulation.

✻

Your magazine impresses me as excellent for teachers because of its suggestions on sanitation. We have a teachers' training class of about twenty-five, whose attention I intend to call to your publication.

✻

I am much interested and very enthusiastic in regard to "Life and Health" work in our cities. I believe it can be a medium in the hands of judicious agents to mold public opinion in harmony with modern sanitarium ideas.

Last Wednesday a young lady asked my husband to buy a copy. He bought the March number, and our delight in your magazine is proved by this prompt subscription. It has filled a long-felt want in our home.

✻

In these days of surfeiting and social functions, the sick are digging their graves with their teeth. "Life and Health" contains many valuable suggestions for the care of the body, and the preservation and restoration of health. "Life and Health" teaches the compatibility of foods, and how to make the best selections. The best investment for mind, body and pocketbook is to have this magazine visit our homes regularly.

✻

I enjoy selling "Life and Health" for it takes with the people. After they have once had the magazine, it requires no effort to persuade them to take it again. The name alone sells it. While on my last trip, I found many who had subscribed for the magazine as a result of the copy I had placed with them. I tell the people that after reading the paper it is for them to decide whether they can afford to be without it.

✻

I have learned to expect that each succeeding number will be better than the one that it follows. For a popular treatment of the questions that pertain to health and healthful living, that steers clear of the rocks of ultraconservatism on the one hand, while avoiding the rapids of radicalism on the other, and all the while keeping up with the rational progressiveness of the age in matters medical, there is no journal that will surpass "Life and Health" in my estimation.

Remember that ailing friend by sending him or her a year's subscription to LIFE AND HEALTH. We will send 3 yearly subscriptions, three years to one address or one year to each of three addresses, for \$2; or 5 yearly subscriptions, to one or more addresses, as above, for \$3. Publishers LIFE AND HEALTH, Washington, D. C.

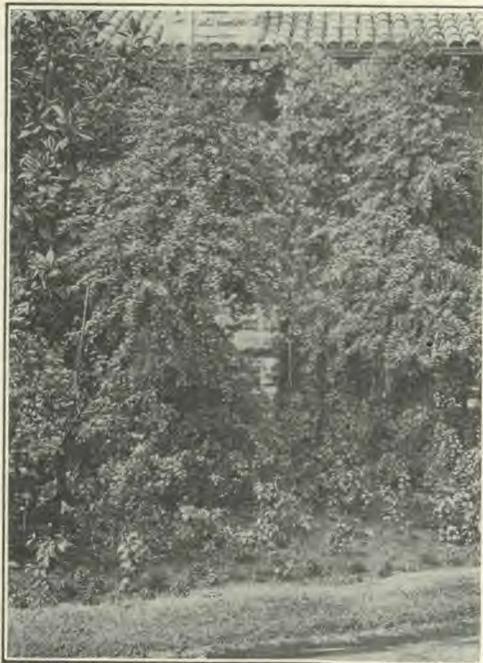
NONCONFORMITIES OF GOD'S GREAT OUT-OF-DOORS



HAS it ever struck you how hard it is to reconcile many man-made standards to God's great world of nature? For instance, the artists, the milliners, and the dressmakers tell us that certain colors do not harmonize: greens and blues do not "match," and purples and violets clash with both of them. Yet lupines grow side by side with a score of shades of green, and the blue sky overarches all and harmonizes perfectly. One of the most exquisite sights I have ever seen is the paloverde in bloom. It is a tree common on the deserts and elsewhere in this Great Southwest land. Its "leaves" are much like pale-green sticks, and the flowers are the richest purple the eye of man ever saw. The wistaria and bougainvillea are both plants that

have flowers so rich and gorgeous as fairly to dazzle the eye. Yet they are both in "execrable taste" according to millinery standards, or those of some artists. How I pity the mentality of those artificially educated men and women who can not realize that the Artist of nature is supreme, that they at

best can be but mere copyists; that their highest art falls so far beneath the lowest of nature's efforts that a child can see the difference. We have a patch of bougainvillea outside our kitchen window. It grows with great rapidity, and its purple flowers are striking in their flaming gorgeousness; yet it is an ever-present delight to my eyes. I am not "educated"—thank God—to see the inharmony and the incongruity of its colors; its non-



AT THE LODGE, GOLDEN GATE PARK

A mass of fuchsias of such gorgeous and brilliant coloring as to shock all the "purists."

conformity to man's standard does not shock me in the slightest.

At the Lodge in Golden Gate Park, San Francisco, is a mass of fuchsias of such gorgeous and brilliant coloring as to shock all the "purists" with its non-conformity to their color standards. But scores of thousands of "uneducated" men, women, and children have gazed upon its glory and unconsciously lifted up their hearts in praise to God for its rich beauty.

Two thousand years ago Christ called attention to the non-conformity of some of the things of nature with the standards of man, of course clearly expressing the idea, which we should never overlook, that God is the controlling power of nature. He said: "He maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust." If the natural man in his unregenerate state had the control of things, he would completely reverse this process, or, at least, he would send rain and sunshine upon those who were his friends, and keep them from those who were his enemies. O, to come into conformity with God's way of nature! "Love your enemies, bless them that curse you, do good to them that hate you, and pray for them which despitefully use you, and persecute you."

Have you ever noticed how a tree will

conform to this standard, which so many men regard as too high for them to attain to? Cut and maim a tree, hack and hew at its trunk, dismember it even, and leave it the least chance to grow, and how it will spring up again into life, giving shade and shelter to the one who chopped it, and protecting his precious

baby as it sleeps in a hammock under its softly rustling leaves.

On this page a double row of eucalyptus-trees is shown. I secured this picture just before the proprietor cut the trees down almost to the ground. It was a sad sight to see the ugly stumps where before had been these straight, shapely, and beautiful-foliaged trees. If they had had the power of speech, they would have cried out at the cruelty that had slain them, had destroyed their

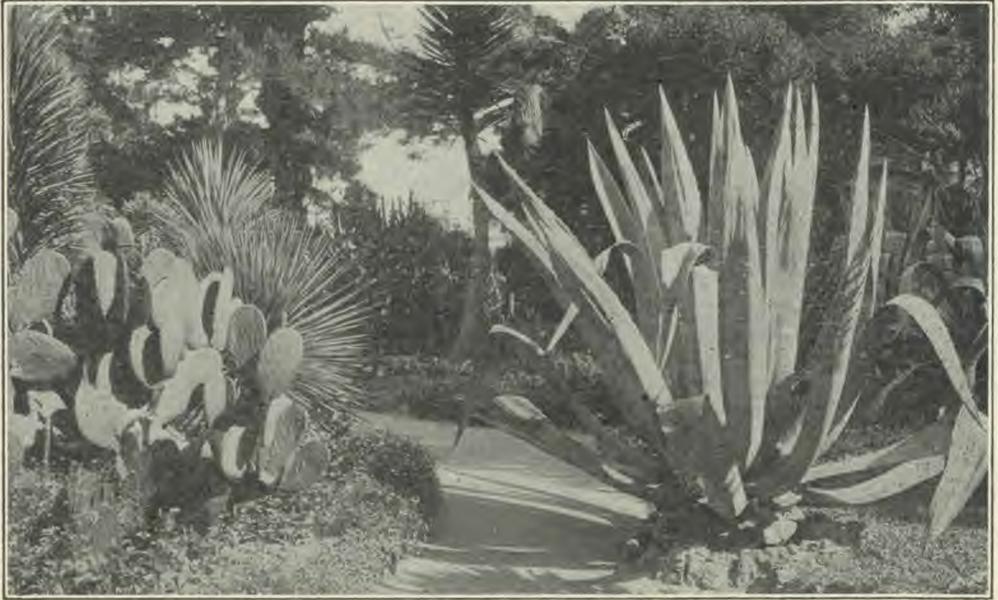
beauty, and had left nothing but their ugly stumpage. Instead of that, they began to expend all their energy in growing afresh. Twenty shoots sprang out from the base of the tree, out of the very cuts that had seemed so cruel, and in less than two years' time every one of those maimed trees had grown to greater height, size, and beauty than before, giving an added charm to the grounds of the man who had been so cruel to them.

Do you see the non-conformity with man's standard? Man would have re-



EUCALYPTUS AVENUE, OXNARD, CAL.

Just before the trees were cut down. They afterward grew again to greater height, size, and beauty.



ARIZONA GARDENS, DEL MONTE GROUNDS

On the grounds of the Hotel del Monte, Monterey, Cal., may be seen, growing on the cactuses, some of the most beautiful flowers.

sented the cruelty; he would have filled his heart with bitterness and hate. How different nature's standpoint, which is also the standpoint of grace. Only the man whose mind is renewed and changed into the likeness of Christ's mind could do as these simple, natural, unconscious trees did. But they were and are man's teachers, because, in their simpleness, naturalness, unconsciousness, they follow the direction of the God who created them. Better by far for man to follow this simple, natural, God-given leading than, in the arrogance of his pride, to make a new standard which is in direct non-conformity to nature and nature's God.

Santa Catalina

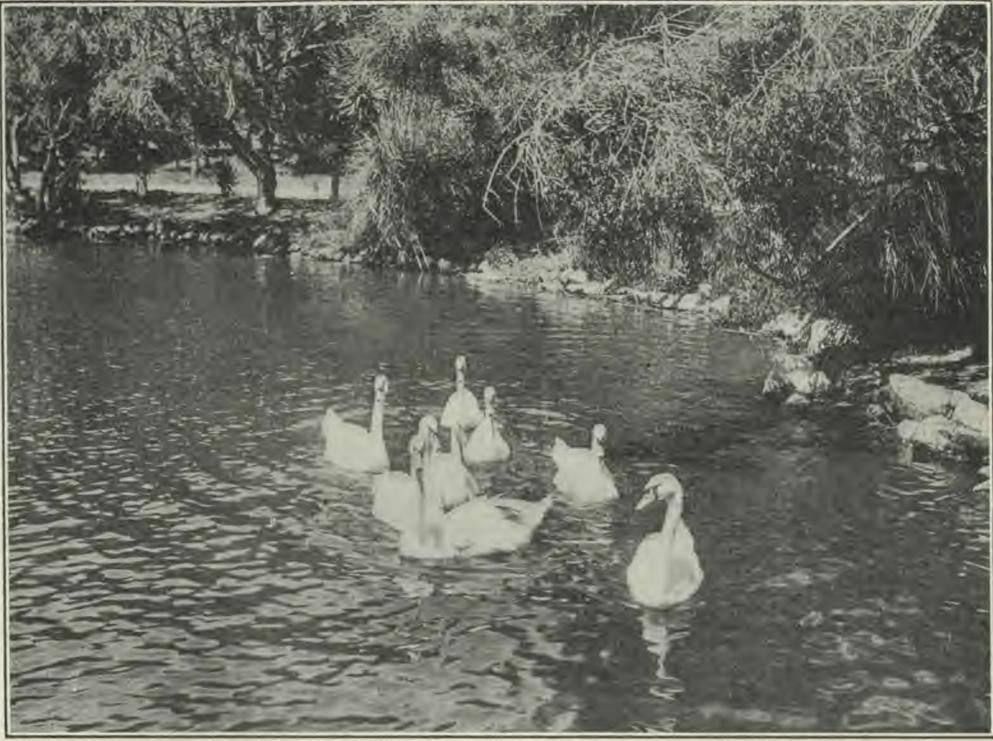
Island is a beautiful "island of perpetual summer," twenty miles out from the mainland of Los Angeles County, in Southern California. Here, though in the Pacific Ocean, one can bathe daily in the water at Avalon, and never experience any of the rude dash and splash of the surf. (See frontispiece.) What makes the non-conformity to the ordinary seashore, where the surf and breakers dash with never-ceasing regularity?

The most beautiful flowers I have ever seen are orchids which I have found in hidden retreats of forests scarcely known to white men, or upon the ugly, prickly, repulsive (to use people's ordinary descriptive words)



SUNFISH

In the placid waters of Santa Catalina the greatest fishes are caught, which one would naturally think would require the wildest surf to develop in.



LAGUNA DEL REY, DEL MONTE

The swan is so graceful in the water that man naturally expects it to be equally so in the air.

cactuses of the desert. No words can describe the dainty yellowish creams, the rich, vivid, flaming crimsons, and all kinds of colors and shades between, which are to be found on these ugly and forbidding plants of the desert. Would man have placed them there? Would man have made such exquisite flowers blossom on such opposite-looking plants?—By no means. That is not his method. He would have all the graces flower in the lives of the prettiest girls, the handsomest men. How nature scorns his standards, or at least rebukes them! And thank God, thousands of men and women have found the joy of this non-conformity of "looks with acts." Some of the noblest deeds are performed by the homeliest-looking mortals.

In these placid waters of Santa Catalina I have seen the fishermen draw

forth the greatest fish,—fish that one would think would require the wildest surf to develop in. On the preceding page is shown a sunfish, caught July 27, 1903, which weighed sixteen hundred pounds. I have seen sunfishes caught which weighed even more than this monster.

One would naturally expect, accepting man's general standards, that the swan would be one of the most graceful of birds when flying through the air; it is so easy, smooth, and graceful when on the water. When the accompanying illustration was made, I stood in perfect delight watching the calm dignity with which these stately birds glided through the water of the Laguna del Rey, near the majestic Hotel del Monte in California; yet when, at another time, I saw one of these birds attempt to fly, I real-



THE COLORADO RIVER

Draining a country larger than many a European kingdom, and sucking away from it all its nourishment.

ized that the air is not their element. They are non-conformists to my standard, which would make them as graceful on the wing as when floating on the water.

I well remember how astounded I was to find the Colorado River draining a country larger than many a European kingdom, and sucking away from it all its nourishment, instead of giving it life, as the other rivers do. The Colorado River is one of the strongest evidences of the non-conformity of nature. One can not even expect all rivers to do the same. They do not conform to one another. God in his wisdom makes them diverse in purpose, as well as in appearance.

I am wonderfully thankful for this fact. God's purposes can apparently be the most diverse, yet they are all his, and

all mean the same thing. Men sometimes seem to have work to do of the most diverse, and even opposite character. Yet God in his wisdom is behind even the diversities. What could seem to be more useless than the Colorado River, draining all the water from the great Arizona plateaux, as if it were a vampire sucking away the country's life-blood? Yet it was this river that made the Colorado Desert, one portion of which — the Imperial Valley — is now watered by its flow, and in the short space of ten years has been transformed from desert to a

RED SANDSTONE FORMATIONS,
WYOMING

On the Green River, seen from the tracks of the Union Pacific Railway, are a number of remarkable rock formations.

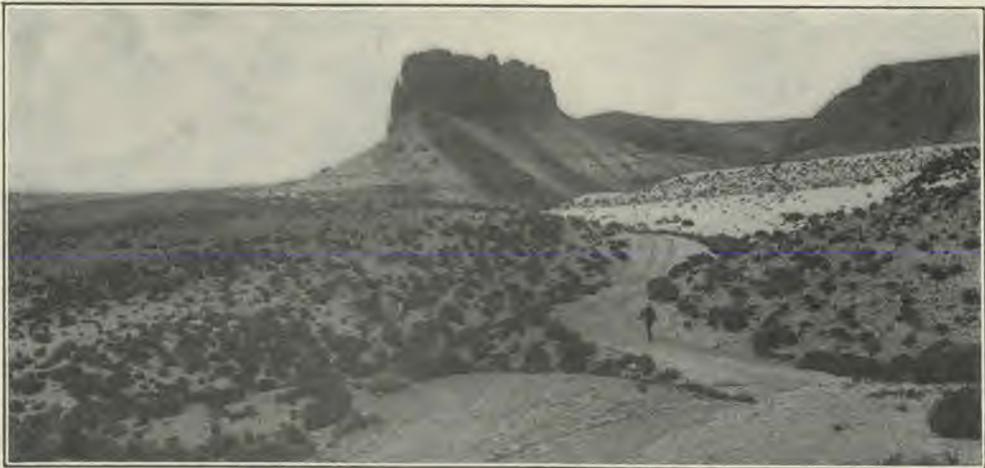
county, imperial in fact as well as in name, with seven towns having a population of over thirty thousand, all living happily and prosperous where once the Gulf of California held sway.

On the Green River, in Wyoming, seen from the tracks of the Union Pacific Railway, are a number of remarkable rock formations, which, by their majestic presence or grotesque shapes, dominate what would otherwise be rather monotonous landscapes. These are proofs of nature's non-conformities. The rock of which they are composed happened (does anything ever *happen* in nature without divine guidance?) to be harder than the material which surrounded them, so that when the surrounding rock was eroded, they resisted the eroding forces, and remain to give character and charm to an otherwise rather barren landscape.

It is this non-conformity in men and women that gives to them the same pleasing and interesting individuality; hence my opposition to all teachings and schools that seek to destroy it, and to reduce all persons to the same monoto-

nous agreement and conformity. God intended us to be diverse; hence he made many of us with what seems to be an obstinate and dogmatic streak that refuses to conform. It is merely the sign manual — when accompanied by due humility, due eagerness to know God and his truth, and due respect for the thoughts and opinions of others — of God's own non-conformity to man's standards.

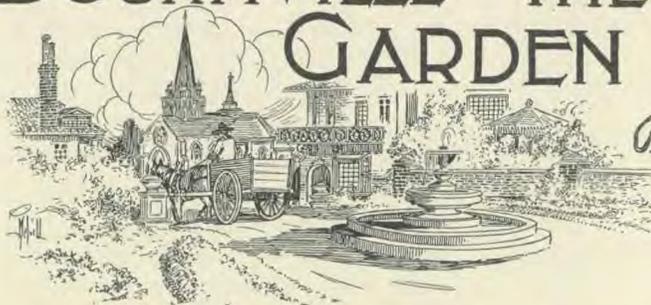
How glad and thankful I am that his gentle zephyrs blow alike upon the cheek of the vile, debased drunkard and sensualist and upon that of the spotless child, upon the thief and the saint, upon the moral leper and the virgin,—not that there are debased men and women, thieves, and moral lepers: no! no! but that his grace and gifts, unlike the gifts of men, are free for *all who will*, the sinner who needs them most the more free, in order that all may become conformed, even in the most diverse non-conformity, to one thing, the solely important thing, namely, to *his mind and likeness*, even the mind and likeness of Christ Jesus.



THE PALISADES, GREEN RIVER, WYOMING

When the surrounding rock was eroded, they resisted the eroding forces, and remained to give character and charm to an otherwise rather barren landscape.

BOURNVILLE THE GARDEN VILLAGE



G. H. HEALD, M. D.

NONE ever tires of viewing the quaint old English villages, with their narrow, crooked streets, their high fences of brick or stone, their half-timbered tile or thatch-roofed cottages, lighted with small leaded windows, and crowned with the inevitable chimney-pots, for these all tell of past generations and antique customs, and introduce us, as books can not, to the days of our forefathers. But in Bournville one sees the beginning of a newer England, the omen of a coming civilization. There is something very attractive about its well-kept streets and neat dooryards; but its chief charm lies in the fact that here a great sociological experiment has been worked out successfully, and it has been proved for all time that it is practicable to ameliorate the conditions of the working classes. Bournville is both an inspiration and a working model for other communities.

The most remarkable fact, perhaps, in connection with the foundation of Bournville is that it is the result of the efforts not of working people, but of a man of wealth. Mr. George Cadbury, who, as an extensive employer of labor and as a Sunday-school worker in Birmingham in connection with what is known as the "Adult School Movement," came to know pretty thoroughly the conditions of insanitation and lack of comfort under which the laboring population ordinarily live,—conditions which are truthfully called "a scandal to our civilization." He was profoundly impressed with the disadvantages and adverse conditions under which the laboring class exists, and as a result, he set for himself the problem of finding a remedy.

To Mr. Cadbury, the most practicable way to ameliorate the conditions of the working class was to give them the op-



THE SHOPPING CENTER



FRONT GARDENS



BACK GARDENS



SEMIDETACHED COTTAGES

portunity to remove from crowded and insanitary city dwellings to the more favorable surroundings of the country. The problem was to give all the advantages of country life, combined with such city advantages as water, light, sewerage, proximity to the factory and shops, and social privileges.

Having outlined a plan, Mr. Cadbury set aside a considerable portion of his Bournville estate for the establishment of a model garden village in which there was to be no crowding. It was planned that each house should have a good-sized garden, and should occupy not more than one fourth of the lot; roads should be wide and bordered with trees; and about one tenth of the land, in addition to roads and gardens, should be reserved for parks and recreation grounds.

It was at first planned to sell the sites and cottages outright; but as this was

open to the danger that the purchasers might not follow the general policy outlined for the village, it was decided finally to sell the houses and lands in leases of ninety-nine years. Tenants under the new arrangement pay ground rent in addition to the rates, and agree in the leases to abide by the regulations which make this an ideal garden city.

The village having been successfully established, the next problem was to insure its perpetuation and the extension of the movement. To this end a trust was established (not in the American sense) to hold the property and administer it in accordance with the terms of foundation; and on the fourteenth day of December, 1900, Mr. Cadbury surrendered to this trust all private interest in the Bournville Village property, as regards both capital and revenue, so that from about the beginning of the twentieth century all income from the prop-



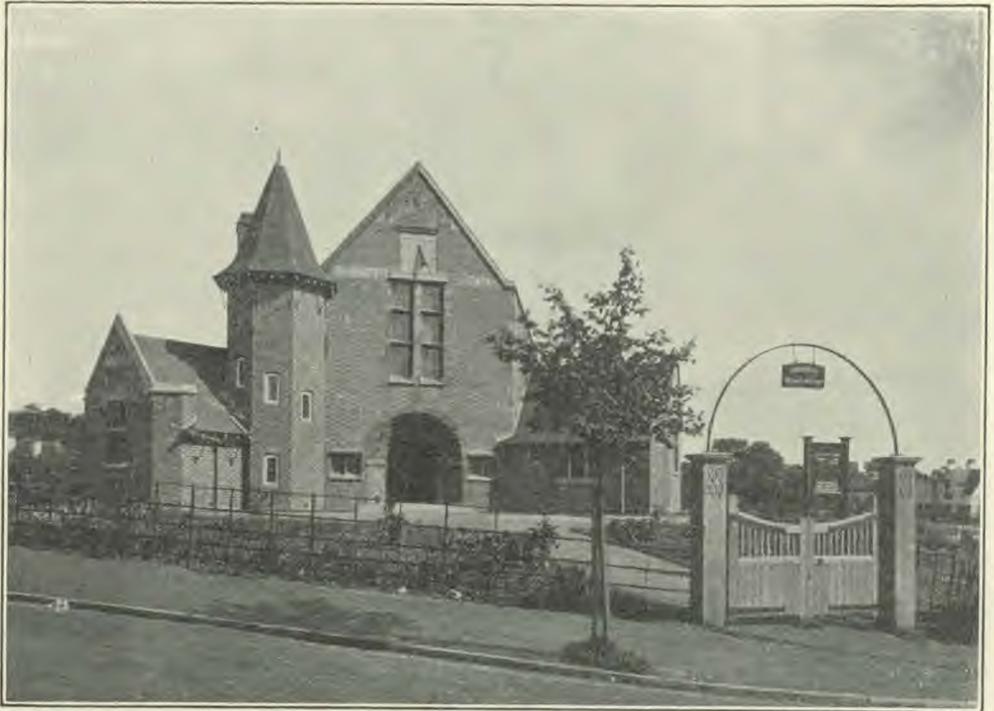
THE VILLAGE INN

erty has been administered by the trustees, who, in accordance with the trust deed, employ all income that is not required for maintenance and repairs, in laying out the estate, building houses, and in purchasing other estates, near Birmingham or elsewhere, to be developed the same as Bournville. Thus the scheme contains within itself the principle of continuous and almost unlimited extension. The total value presented to the English people in this gift is estimated at more than a million dollars.

Among the powers granted the trustees are: To make arrangements with transportation companies for cheap rates; to lease, underlet, or sell land, or to develop it and prepare it for building; to borrow money, and invest funds; to give land or erect buildings for places of worship, hospitals, schools, technical institutes, libraries, gymnasiums, laundries, baths, and kindred objects. The deed

provides that all schools and institutions built by the trustees shall "be so organized as to exclude sectarian influences, and so conducted as to avoid denominational jealousies."

It has evidently been the wish of the founder to exclude permanently from the village the sale of intoxicating liquor. In order that a license may be obtained to sell liquor, it is necessary, by the terms of the deed, to secure the unanimous consent of all the trustees in writing; and all net profits arising from such sale must be devoted to securing for the village community counter-attractions to the liquor traffic. The clause relating to the sale of liquor concludes by giving the founder's "intention that the sale, distribution, or consumption of intoxicating liquors shall be entirely suppressed, if such suppression does not, in the opinion of the trustees, lead to greater evils."



VILLAGE MEETING-HOUSE

The trust deed also contains provisions requiring that the administration of the trust shall be unsectarian and non-political, and stating that "it will be a violation of the intention of the founder if participation in its benefits should be excluded on account of religious belief or political bias."

It is evident that the founder is a thoroughly broad-minded and liberal-minded man, and he has had the foresight to establish the trust in such a way as to insure the perpetuation of his purposes.

One visiting the village finds it well-planned, well-kept, picturesque, beautiful, and healthful. The village planners have endeavored to conserve as far as possible the natural beauty furnished by the pleasing contour and the old shade-trees, and to add to this beauty by the arts of the landscape-gardener.

The cottages, semidetached or in

blocks of three or four, are treated in a variety of styles to avoid monotony, and are given ample garden room. There are about seven houses to the gross acre. Most of the houses have two sitting-rooms, a kitchen, three bedrooms, and the usual conveniences. Some have one large sitting-room, and a few have only two bedrooms. Recently there have been built two quadrangles of small bungalows suitable for single women. There are also more pretentious houses. The cheapest houses are let for about four dollars a month, rates extra. From this minimum they run up to eight dollars a month, plus rates. Gas, water, and sewer facilities are supplied by the city of Birmingham. Each house has a garden-plot of about five hundred square yards, which is laid out by the estate gardeners at the time of building, so that the tenant taking a new cottage finds the garden already prepared, with



“ THE TRIANGLE ”

lawns, lines of fruit-trees and shrubbery. Tenants usually manifest much interest in their gardens. There are gardeners who give information and advice when requested, and gardening classes are well attended by boys and young men, who develop a lively interest in the work.

With broad streets, houses set well back, playgrounds for children, and a park, there is abundant opportunity for the open-air life. The park, which has been left as much as possible in its natural condition, has, running the full length of it, a partly shaded brook, which is very popular with the children.

There are a number of public buildings. The “meeting-house,” a place of worship, is open daily “for private meditation,” and on Sunday for public services. There is a mixed school accommodating about five hundred children, and an infant school for two hundred fifty. The school buildings are said to rank with the best in the country. In the tower of one of the school buildings is a clock with chimes said to be the best in the country. The writer heard it play “Rocked in the Cradle of the Deep,”

and certainly he has never heard its equal in chimes.

Here stands a village of eight hundred fifty houses, every one a model, with everything planned for the convenience and health of the inhabitants. The village is only fifteen years old, and is modern in every particular. There is a great demand for houses, and tenants rarely leave unless they are moving to some distant part.

In order to stimulate interest in gardening, there are three annual flower shows,—the Rose Show; the Flower, Fruit, and Vegetable Show; and the Chrysanthemum Show. Actual test of twenty-five gardens shows that the average weekly yield per garden is fifty cents, or twenty-six dollars a year. This is an economy not to be despised by the family of the laborer; moreover, it furnishes an agreeable and healthful occupation. As the *Economic Review* expresses it, this land now yields six times as much produce as it did when farmed in the ordinary way, and in addition, it houses under ideal conditions a population of nearly two thousand persons. So much



THE PARK

for the value of intelligent and intensive cultivation of the land in small sections.

What might not be accomplished for the health and comfort and prosperity of the laboring classes if they could be induced to leave the crowded cities and settle in properly appointed factory villages, each family with its little garden-plot?

An interesting feature of Bournville is what is known as the village council, which consists of a body of workers elected by the residents to further the interests of the village. A certain proportion of the councilors retires annually. The councilors receive no remuneration. The council has done much for the town, especially in fostering the interest in gardening. It arranges for the cooperative purchase of plants and bulbs in large numbers. Garden tools are let on hire. A loan library of garden books has been established. The council has charge of

the various flower shows, which are very successfully managed.

Hitherto Bournville has formed part of a district which was controlled for local government purposes by an Urban District Council; but in November of last year it became a part of the city of Birmingham, owing to the extension of the city boundaries.

It may be interesting to our readers to compare the vital statistics of Bournville with some others. The annual death-rate per 1,000 inhabitants for the five years ending 1910, was:—

For Bournville	5.7
For urban district	10.5
For England and Wales	14.6

This may not be altogether a fair showing, as we have not all the factors for correction, but here is another. The infant mortality per 1,000 live births, average of five years ending 1910, was:—

For Bournville 62.4
 For urban district 82.6
 For England and Wales 117.4

Some of the facts demonstrated by the Bournville experiment are:—

Comparison of the Bournville children in height, weight, etc., with city children of the same age, shows a marked advantage for the Bournville children.

Mr. Cadbury has realized that such an enterprise as this, in order to be permanent and to grow in influence, must be on a self-supporting basis; and notwithstanding the fact that it is more difficult to get adequate returns on small rentals where so much land is allotted to each family, the trustees are now able to fix the rents on the new houses so as to yield a net return of four per cent on the investment after paying all running expenses, including repairs.



1. There is a great demand for garden houses, notwithstanding the disadvantage of distance from work. (Less than half the tenants work near the village.)

2. Men who have gardens will cultivate them and take an interest in them.

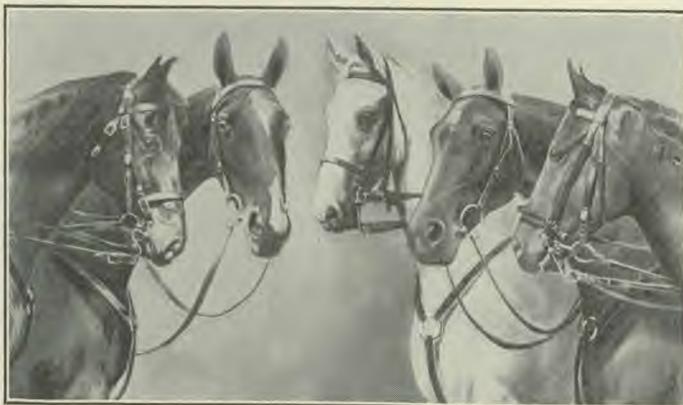
3. The outdoor life adds very much to the health of the community.

4. The education in cooperative methods and in citizenship is invaluable.

5. The tendency is toward a general uplift of the community, physical, mental, and moral.

6. The garden city project is financially practicable.

Lack of room has necessitated the omission of a large number of illustrations which we have of this beautiful suburb.



HOW TO ESCAPE THE WHITE PLAGUE

ALFRED B. OLSEN, M.D., B.Sc., D.P.H.

TUBERCULOSIS, or "The Great White Plague of the North," as Oliver Wendell Holmes so aptly called it, is preeminently a disease of civilization, of confinement, if you please. Tame the savage of the forest, confine him to the houses of modern civilization, and he very speedily becomes exceptionally susceptible to tubercular infection, and often a victim of the disease. The lot of the North American Indians who are now rapidly disappearing is a striking illustration. Domesticate the beasts of the field, and they, too, become peculiarly susceptible to tubercular disease. Cage the wild birds of the air and subject them to the vitiated atmosphere of the average home, and they show the same susceptibility. There can be no question but that the close life of partial imprisonment in cages, which we call houses, of itself renders the human being more susceptible to the white plague, and aids materially in multiplying its ravages.

Contrast for a moment the healthy, active open-air life of the patriarchs of old, of Abraham, Isaac, and Jacob, who, having no fixed abode, dwelt in tents, and moved about from place to place as the feeding of their flocks required. Small wonder that these hardy herdsmen and tillers

of the soil were long-lived. Surely theirs was a more sane and more wholesome life than that of the average townsman, who only too frequently is obliged to pass his days in the foul air of more or less crowded and badly lighted offices in the city, and his nights in bedrooms where windows are more often closed than open. Man is emphatically a fresh-air animal, and he thrives best when living in contact with the clean, pure air of the countryside, for, as Cowper so beautifully puts it, "God made the country, and man made the town."

Before dealing with the preventive measures by which tuberculosis can be warded off and kept at bay, it is desirable to take a brief glance at some of the more important causes, both predisposing and exciting which are likely to bring on an attack of tuberculosis.

These causes, small and large, are almost innumerable, and have to do with practically every detail of our daily life. According to G. A. Heron, M. D., F. R. C. S., senior physician to the City of London Hospital for Chest Diseases, "the human race is predisposed to infection by certain diseases, and among these is tuberculosis. These diseases are caused by living infections which having gained access to our bodies often find there



Contrast for a moment the healthy, active open-air life of the patriarchs.

all they need to enable them to do their work of infection. In this sense it is true that mankind is predisposed to infective diseases, and of these tuberculosis is the most fatal. It seems certain that this predisposition to disease is stronger in some persons than in others; but this appears to be nothing more than an example of the law which establishes the fact that while, on broad lines, men resemble one another, in details one may differ widely from another."

The rôle of heredity is an important one, not so much on account of "specific heredity of tuberculosis," which Prof. A. Calmette, of Lille, says is an "execrable doctrine," but because of certain physical weaknesses and tendencies to which the children of tubercular parents are liable.

Anything that interferes with the natural functions of the body, which lowers the vitality or lessens the physical resistive forces, must be regarded as a predisposing cause, not only in opening the door to tuberculosis, but also to other more or less similar infections. Any disease, such as pleurisy, bronchitis, or pneumonia, which attacks the chest, paves the way for the bacillus of tuberculosis and renders such individuals afterward far more susceptible to infection.

Milk and various milk foods, including cream, butter, and cheese, which are derived from tuberculosis cattle become a most serious means of transmitting the disease. The same is true of the flesh of most domestic animals, all of which are more or less prone to tubercular disease. Too much stress can not be laid upon the importance of a pure milk supply. Milk which is not known positively to

be derived from healthy cattle should always be sterilized before using. This is particularly important in the feeding of children, as the little ones of tender years have less power of resistance, and consequently are far more susceptible.

One of the most important of all predisposing causes is undoubtedly the breathing of foul air in an overcrowded room. The influence of such conditions is strikingly put in the following words by Dr. Woods Hutchinson: "It is, of course, and has been for half a century, a commonplace of vital statistics that the

death-rate from tuberculosis varies precisely with the social position of the individual, falling most lightly upon the highest and wealthiest classes and most heavily upon the lowest and poorest. In this sense consumption is the price of civilization, and, as usual, is paid by the lower two thirds for the benefit of the upper third. A typical statement is that of Korosi, that of the inhabitants of Budapest there die of consumption of each 10,000 well-to-do persons, 40; of

the moderately well-to-do, 62.7; of the poor, 77.7; and of paupers, 97."

Then there are certain trades with which is associated a great quantity of dust of a more or less dangerous nature. The laborers engaged in these trades, such as cutlers, file-makers, printers, tin miners, and lead miners, appear to be particularly susceptible.

We can only mention the vast importance which alcohol plays as a factor in producing tuberculosis. Alcohol in any form, mild or strong, is a protoplasmic poison, and its immediate effect upon the body is to lessen its natural resistive powers and to reduce vitality. Thus al-



More or less crowded and badly lighted offices in the city.

coholism favors the invasion of infectious disorders generally, and none more than tuberculosis.

Not infrequently the use of alcoholic beverages is associated with insufficient food; for money which should be spent in the provision of nourishing food, is wasted on drink, and the poor victim suffers a double affliction. His body is poisoned by the alcohol, and the natural sense of hunger which he ought to possess is deadened, and he is in a state of semistarvation, which renders him readily susceptible to the germs of consumption. Insufficient feeding must be regarded as an important predisposing cause, and the same is largely true of insufficient clothing.

In 1882 the late Dr. Robert Koch, of Berlin, made his brilliant discovery of the specific germ which is always associated with tubercular disease. The presence of the tubercle bacillus explains the highly infectious nature of consumption, and the reason why it spreads from man to man as well as from beast to beast. The first question put before the Royal Commission on Tuberculosis, which was appointed in 1901 and which recently made its final report, was, "Is the disease in animals and man one and the same?" Their answer, summed up in a few words, is as follows: "The commissioners therefore regard these two types as varieties of the same bacillus. . . . There can be no question, therefore, that human tuberculosis is in part identical with the bovine."

The second question was, "Can animals and man be reciprocally infected with it?" The careful and extensive

experiments which they carried out led the royal commissioners to conclude that animals and man *can be reciprocally infected* with the disease.

These conclusions are of the gravest importance, and we wish they could be speedily placed before all the citizens of our land, and in such a form as to be readily comprehended by all classes of society.

Tuberculosis is a highly infectious disease found in all lands, whether in the tropics or in the arctic regions, and attacks all classes of society, although it is especially associated with squalor, poverty, and strong drink. All ages, too, are

susceptible to tuberculosis, from the babe in the mother's arms to the aged man who is leaning on his staff. Children are particularly susceptible, and we have good reason to believe that the seed of tuberculosis is often sown in



Nights in bedrooms where windows are more often closed than open.

childhood, even though it does not actually develop until a later period of life.

The terrible ravages and havoc which the tuberculous disease produces in the body are by no means confined to the lungs. All organs and tissues of the body are susceptible in a varying degree. Tuberculosis of the lungs is known as consumption. When the skin is the seat of the disorder, we call it lupus; when the glands of the neck or other parts of the body are enlarged on account of the presence of tubercle bacilli, the condition used to be called scrofula or the king's evil.

In calling attention to the wide extent of the disease and the gravity of the problem of dealing with it, we can do no better than quote from the admirable

speech which Mr. Lloyd George made last May when introducing his National Insurance Bill, as follows:—

“We propose to do something to deal with the terrible scourge of consumption. There are, I believe, in this country about four or five hundred thousand persons suffering from tuberculous disease. From the friendly societies’ point of view it is a very serious item because of the dragging length of the illness. In the Foresters’ Society the average illness of a consumptive patient lasts fifty-eight weeks, and out of the total sick-pay of

that society about twenty-five per cent is due to tuberculosis. There are seventy-five thousand deaths a year in Great Britain and Ireland from tuberculosis. A much more serious fact is that, if you take the ages between fourteen and fifty-five among males, you find that one out of three dies of tuberculosis; and these are the ages which should be those of strength, vigor, and service. It kills as many in this kingdom in one year as all the zymotic diseases to-

gether; a terrible fact in connection with it is that the moment a man is attacked and conquered by it he becomes a recruit of a destructive army, a serious danger to those to whom he is most attached, a scatterer of infection and death in his own household. Seventy-five thousand deaths a year! There are forty-three countries and towns in Great Britain and Ireland with a population each of seventy-five thousand.” He continues his argument somewhat as follows: If this year one of these places of seventy-five thousand inhabitants were devastated by plague, every man, woman, and child being destroyed, and the place

left desolate; and if the same thing happened to another seventy-five thousand population the next year, I do not think we should wait longer. All the resources of the country would be placed at the disposal of science to crush out the evil. But that is just what tuberculosis does every year, only its victims are scattered. I do not say that we can eradicate the evil. Doctors think they can; they are confident they can; and the men who have devoted a great deal of attention to the subject are the most confident of all. Those engaged in experiments are

full of bright hope that they can stamp it out, but they can only do it with help, and I purpose to ask the House to help them.

Knowing the direct exciting causes of tuberculosis, we also know the means of preventing it by taking certain necessary precautions, so as to avoid contamination with the specific microbe. We have seen during the last twenty or thirty years a very marked reduction in the loss of life by typhoid fever wherever due care has been taken



The laborers engaged in dusty trades are particularly susceptible.

with regard to the purity of the water and food supplies. But the problem of dealing with tuberculosis is a much greater one, and much more difficult than that of typhoid fever. In the past, although the efforts at prevention have been comparatively meager, feeble, and more or less haphazard, still they have brought gratifying results. According to the registrar-general, in the year 1910, 3,437 males and 2,118 females (a total of 5,555) died from phthisis in London. This means a death-rate percentage of 1.14 per 1,000 living, which is .24 lower than the average for the preceding five years. Dr. Niven re-

ports from Manchester that the death-rate there last year was the lowest ever recorded. In Edinburgh the percentage for 1910 was .97 per 1,000; Glasgow, 1.21; Belfast, 2.11; and Dublin, 2.34, in all cases the lowest on record. Fortunately we can compare these rates with foreign cities for the same year: Copenhagen, 1.14; Hamburg, 1.26; Berlin, 1.76; Vienna, 2.49; Moscow, 2.50; St. Petersburg, 2.90; Paris, 3.66; Rio de Janeiro, 3.96; and New York, 1.81.

It is interesting to note the improvement in the death-rate from tuberculosis in Melbourne, a city of about 100,000. In the years 1891-95 the average was 2.7 per 1,000 of living inhabitants. During 1906-10 this death-rate was reduced to 1.3 per 1,000, and the figure for 1910 is still lower, being 1.1 per 1,000. According to the medical officer, from whom we have obtained these figures, these satisfactory results are, in the opinion of Dr. James Jamieson, medical officer of health for Melbourne, largely explained as follows:—

“The higher standard of living and

the improvements which are included in the general term of sanitary measures must be credited with a large share of the success that has attended the labors of sanitary administrators. In Melbourne, for example, during the past quarter of a century thirty-five hundred dwellings have been condemned as unfit for human habitation.”

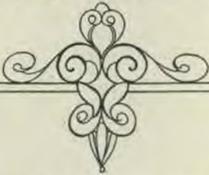
But the results which have been obtained by Lady Aberdeen and her fellow workers in the Women's National Health Association, of Ireland, in combating tuberculosis are perhaps the most striking and most encouraging of all. This association was only organized in 1907. Concerning the diminution of tuberculous disease, Sir William J. Thompson writes: “It is gratifying to observe that within the past three years the number of deaths in Ireland from all forms of tuberculosis has been reduced by about one seventh (1,663), and that the rate of mortality per 1,000 living has fallen from 2.7 to 2.3.” This is a fine example of what voluntary health societies can accomplish.



ELIMINATING THE MIDDLEMAN

KEEPING YOUNG IN LOOKS

WILLIAM J. GROMIE



IN building up a good complexion, or "keeping young in looks," one requires, in the first place, good health. To have good health, one must not eat too fast, too much, or improper foods; must exercise and bathe the body daily; and must secure sufficient rest and sleep. It is the failure to relax the high-strung nervous tension that makes most women "old before their time."

It is said that the busy business man lives too fast, and crowds on more and more steam until the boiler bursts; but I firmly believe that the American woman is more strenuous in her endeavors than the man. Her nervousness at times borders on hysteria. Observe her on a train or trolley; she is keeping time to the click of the wheels with her feet, drumming with her fingers, or clasping and unclasping her hands. Even in church or other public gatherings she is constantly adjusting her hairpins, or performing other fidgety movements. It is not that she is improperly dressed, but that she is extremely nervous, and barely takes note of these unnecessary countless movements.

A man after dinner will sit back in a comfortable chair and relax, whereas a woman flies, like one pursued, from luncheon to the sewing-room, the kitchen, or the shopping district. Long before her meal has gone through the first process of digestion, she is solving her daily problems and worrying at the same time. Is it any wonder that furrows appear between her eyebrows, and her lips set in a hard, compressed, and

intent line? Hurry and worry are twin sisters, and usually one is in close proximity to the other. The woman who hurries and worries unduly is bound to have crow's-feet and a wrinkled, old-appearing countenance.

"But I simply can not relax," replies this high-strung, nervous woman. In a sense this is true; she can not *properly* relax in her present physical condition. Relaxation is an art, and it takes years of patient cultivating in order to derive its full benefits. Relaxing and exercising go together. One who has strong muscles can relax more easily than one with soft, flabby muscles.

"But," objects she who does not know how to relax, "when can I find time to exercise? I am a busy housemother, and live in the suburbs. I must dress in a hurry, in order to get my husband and children off in good season for the train and school. I can not devote half an hour or so at any time during the day to exercise, nor can I sleep an hour or two after luncheon."

It is unnecessary to exercise a half-hour at a time or to sleep an hour or two after luncheon; in fact, there are very few who have time for such a daily régime. You surely can find five minutes in the morning and five in the afternoon to indulge in this one exercise which I am about to describe.

Stand before an open window or in the open air, and raise arms above the head, standing on tiptoe, and stretch up as far as possible. Take a deep breath while raising the arms. Now bend forward, letting the breath out while doing

so, and, without bending at knees, grasp the ankles firmly. Do this ten times morning and afternoon. At first, you may not be able to get as far down as the ankles without bending the knees, but if you persist, you will eventually. Every woman should be supple enough to perform this exercise with ease.

Cultivate the habit of stopping work three or four times a day to relax. If sewing, stop for five minutes, lie limply back in your chair, relax every muscle, close the eyes, and turn the eyeballs upward, and make the mind as nearly a blank as possible. If you can lie down for five or ten minutes, do so. Now get up and take a good stretch. The cat can teach us a valuable lesson. It takes many naps during the day, and is an adept in the art of stretching. In our cat-naps, it is not

necessary really to sleep. By simulating sleep one can attain the desired result.

In riding home on the street-car, discard the newspaper and take a cat-nap. Cross the feet, hands in lap, with palms up, relax and rest, and you will enjoy the evening's work or play much better.

I have so practised the art of relaxation that I become rested while hanging to a strap in a crowded trolley-car. I

can even relax while standing on a platform directing gymnastic exercises to a class of one hundred fifty or more college students.

Some women are beautiful all their lives. Some retain beauty till forty or fifty years of age, and others, more's the pity, only till twenty or thirty. The saying that a woman is as old as she

looks has a lot of truth in it, as usually one feels as old as she looks. Some are, indeed, old at thirty, while others are young at sixty. The best way to ward off old looks is by complete relaxing of the body five minutes at a time at every opportunity. This period of rest protects one against the hard lines due to sustained tension of mind or nerves.

In the exercise of relaxation it will be found difficult at first to dismiss every thought,

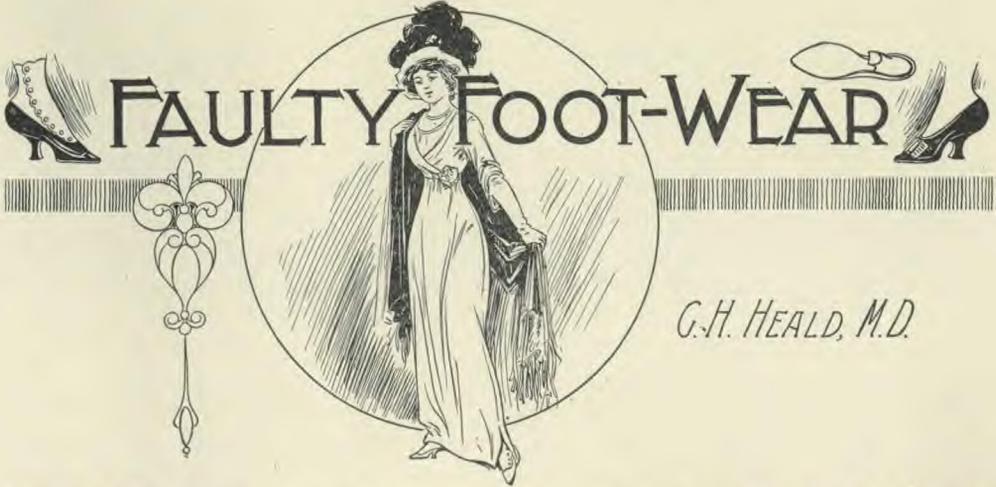
but even this will come with practise. In addition to relaxing the muscles, imagine that you are sinking down, down, down, through miles of soft, dark, restful oblivion, and that the world, with its cares and turmoil, is so far away that it need not concern you. Now, open the eyes, stretch in every conceivable way, and see how rested and refreshed you feel.



Photo by Haeseler, Philadelphia

A B C

From position *a*, chest thrown out strong, abdomen and chin in, raise on toes and stretch as in position *b*; then bend forward, and grasp ankles firmly as in position *c*; continue till tired.



G. H. HEALD, M.D.

THE directors of the Dresden exhibition did not overlook the harm done to the feet by improperly fitted shoes. In the der Mensch building there were models showing in a striking manner the evil effects on the feet of ill-fitting shoes.

In the building devoted to clothing,

a number of stalls had on exhibition reform shoes, and at least one exhibited X-ray pictures showing the effect of tight and improperly shaped shoes on the bones of the feet.

Reproduction of these pictures are given herewith. It will be noted that while the shoe in Fig. 1 is, according



SKIAGRAPH SHOWING BONES OF DEFORMED FOOT



SKIAGRAPH SHOWING BONES OF NORMAL FOOT

to present ideals, a little more "shapely" than the one in Fig. 2, the foot in Fig. 2 is the more shapely, because in Fig. 1 the bones are displaced, and the foot is badly misshapen. The time is not far distant when the shoe forms that cramp the feet will not be so much in demand as they have been in the past.

Our lack of intelligence regarding our own needs and those of our children is well illustrated by a story which has just come to me. A mother, seeing her little boy attempting to feed the dog on a pickle, said, "Johnny, don't give that to the dog, it might make him sick; eat it yourself!"

The man who is extremely careful to see that his horse is not injured by wrongly fitting shoes, pays comparatively little attention to the shoes for his

child. It is while the child is young, and the bones still partly cartilage, that lasting injury is done to the feet by the attempt of the shoemakers to give a shapely form to the foot. Parents should insist on right forms, especially for the shoes of their children.

We noted in England, and especially in Germany, the general custom among both men and women of taking long walks, and those who walk wear sensible shoes. Even the shoes of the women are strong, with common-sense heels. It is doubtful whether they could take some of these long tramps shod in fashionable American shoes. I said fashionable—it is difficult now to get any kind of woman's shoe in America that does not show the tyranny of Dame Fashion.



HEALTHFUL COOKERY



NUTS

George E. Cornforth

IF fruits are the "queens among foods," it seems to me that nuts are the kings. Most nuts are really fruits or parts (seeds) of fruits, though they are quite different from those products which we are accustomed to think of as fruits. They are the hard fruits.

It will be found to be a very general rule that the best foods grow nearest heaven, the less desirable foods grow nearest the ground, and the least desirable grow beneath the ground. According to this rule the foods which grow on trees are the best, and nuts are among these foods.

There is a large number of gray squirrels here in the Fells in which the sanitarium is situated. During the past few months they have been getting ready for winter, and now they are as fat as they can be, just fluffy bunches of fur. What has made them so fat and prepared them so well for the cold weather? There is an abundance of nuts growing about here; the boys and girls enjoy feeding nuts to the squirrels, and that tells the secret. This may suggest to us what we may add to our diet as a winter food. Have you ever noticed how greedy monkeys are for nuts, and how thoroughly they masticate them? The monkey is a good example for us in his dietetic habits.

The value of nuts as a palatable and

nutritious addition to the diet is being much better appreciated than formerly, and their use is on the increase. A few years ago they were regarded merely as a luxury or something to be eaten at odd times, but people are coming to realize that they may well form a substantial part of the diet, and that that is really the way they ought to be used. Among the recipes published in magazines devoted to cookery, and in other magazines, are very frequently found recipes giving directions for the use of nuts in various ways.



Nuts are very rich in fat and in the nitrogenous food element, and contain, with the exception of the chestnut and the peanut, very little or no starch. They are, next to pure fats, the most concentrated of all foods. They must not be used as the main food supply, but merely as an accompaniment of other more bulky foods. If they are regarded as butter substitutes rather than meat substitutes,—and they, with legumes, can well supply the place of both meat and butter,—we might approach more nearly to a proper use of them, for no one would think of making butter a main article of diet. Nuts are nature's meat and butter, and they do not have to be kept in cold storage. Nature herself has sealed up their nourishment against the action of the elements.

All nuts, except chestnuts, being rich

in protein and fat, may be used as meat substitutes and eaten with carbohydrate foods, as bread, potatoes, and fruit, and the less concentrated foods, as green vegetables; while chestnuts, which resemble bread in their composition, may be eaten as a vegetable and in combination with milk, cream, eggs, or other nuts.

Nuts have a reputation for indigestibility second to nothing but rich pies and puddings, and they are able to sustain this reputation as they are usually eaten — not well masticated, eaten between meals or late at night, or after a hearty meal. But when reduced to a very finely divided state, either before or during mastication, and eaten in reasonable quantities and at proper times, their digestibility has been proved to compare very favorably with that of other common foods, as bread and milk. The fat of nuts eaten thus is one

of the most easily digested forms of fat; being in an emulsified state, it can not smear the walls of the stomach or other foods, thus interfering with their digestion. There seems to be no foundation for the common belief that salt aids the digestion of nuts, or prevents any distress resulting from eating them. It may, according to the taste of some people, add to their palatability.

Nuts, with the exception of peanuts and chestnuts, require no cooking. As with strawberries, cooking impairs their delicate flavors.

The manufactured nut foods which are on the market may make a valuable ad-

dition to the diet from the standpoint of palatability and variety, but are more expensive than home-made nut preparations.

A comparison of the food value and the cost of nuts and meat might be interesting. I am inclined to believe that people are apt to eat with their minds instead of with their stomachs; that is, when their minds are satisfied as to the food value of an article of diet, their stomachs are satisfied accordingly. No matter how much we may try to persuade

ourselves that we put dependence only upon certainties, and accept nothing by faith, it is a fact, whether we recognize it or not, that faith plays a large part in the ordinary affairs of life. A person will eat a small steak containing, perhaps, one hundred food units, and feel perfectly satisfied if he has little else to eat, because he

has so much faith in the food value of the meat; but if he were to depend upon nuts for that meal, he would not be satisfied that he had eaten enough till sufficient space within his anatomy had been filled, so that he distinctly "felt" satisfied. But it would take only half an ounce of nuts, which would be three Brazil-nut meats, eight pecan meats, three walnut meats, or fourteen blanched almonds, to equal the one hundred food units of steak, and so small an amount of nuts would hardly be "felt" after eating.

A further comparison may be made as follows: —

"COOKERY is or should be a fine art. Like other arts, it has its laws of proportion, harmony, and contrast. The art of cookery appeals to the sense of taste, music to the sense of hearing, and the graphic arts to the sense of sight. Gratification of the sense of taste is as legitimate as enjoyment from any of the senses. The temperate indulgence of the sense of taste is indeed necessary for good digestion, on which depend physical well-being and efficiency. A systematic study of cooking, then, should be a fundamental part of the education of the home-maker."— *American School of Home Economics*.

Shank, 25 calories to the ounce; round steak, 47 calories to the ounce; rump steak, 67 calories to the ounce; average, 46 calories to the ounce. Shank costs 10 cents a pound; round steak costs 20 cents a pound; rump steak costs 30 cents a pound; average, 20 cents a pound. Peanuts, 160 calories to the ounce. Cost, average, 8 cents a pound. Walnuts, 200 calories to the ounce. Cost, 50 cents a pound.

Or, when you buy peanuts, you get more than three and one-half times as much food value for two fifths the cost; and when you buy walnuts, you get more than four times the food value for two and one-half times the cost.

The Almond

FOOD VALUE IN CALORIES PER OUNCE

PRO.	FAT	CAR.	TOTAL
24.4	144.9	20.1	189.4

The almond is quite commonly considered the choicest and most wholesome of nuts. It was one of the foods which was prized in Bible times. In Gen. 43:11 it is mentioned with nuts, which the Revised Version tells us in a footnote are pistachio-nuts. It is interesting to me to note that the foods mentioned in the Bible, namely, olives, figs, grapes, and almonds, are still recognized as among nature's choicest foods. Others, lentils and barley, are not used so much to-day, but are recognized as nutritious and strength-giving foods.

The plum, peach, and almond belong to one family. The almond is a tropical evergreen, a native of Barbary and Morocco. It thrives in all the countries which surround the Mediterranean Sea, and is grown extensively in the United States. It is remarkable for the beautiful appearance it presents in early spring when loaded with its pale-pink blossoms. The nut is really the seed of a fruit which resembles the peach, being covered with down, but which, unlike the peach, becomes dry and fibrous at maturity, cracking open and allowing the nut to drop out. The almond is highly prized for culinary purposes, being used in pre-

paring various extremely appetizing dainties for the table. Its expensiveness prevents its free use. Where it is grown, it is considered a dainty, eaten from the half-open green husk.

The skin which covers the kernel is somewhat irritating to the stomach, and should be removed by blanching.

The bitter almond contains hydrocyanic, or prussic acid, and while it is often used as a flavoring, it can hardly be considered wholesome.

To Blanch Almonds

Pour boiling water over the nuts, and allow them to stand until the skins are loosened. Pour off the hot water and pour on cold water to cool them. Pour off the cold water. The kernels can then be easily slipped out by pinching with the thumb and finger. The nuts should then be baked in a warm oven till thoroughly dried and brittle but not browned, when they can be easily pulverized, in which condition they are readily digested. To salt the almonds sprinkle salt over them when they are put into the oven, and let them dry with the salt on them.

Almond Butter

Grind the blanched and thoroughly dried almonds through a nut-butter mill.

Almond butter, almond paste, and almond cream—made by thinning the butter to any desired consistency by the addition of water—are considered excellent foods for persons suffering with diabetes and pulmonary disorders.

Almond butter can be bought already prepared, but it sells for about one dollar a pound. Almond paste, for making macaroons and small fancy cakes, can be bought at bakers' and confectioners' supply houses, and sometimes bakers or confectioners can be persuaded to sell a small quantity. It is put up in five-pound tin pails, which retails at a dollar and a half.

Almond Macaroons, No. 1

- 3 egg whites
- 1 cup powdered sugar
- $\frac{1}{2}$ pound almond paste

Rub the sugar and paste together, then add the beaten whites. This may be put upon oiled paper with a pastry bag and tube, or may

be dropped in small bits from the tip of a spoon. Bake fifteen to twenty minutes in a cool oven. When done, invert the paper and wet with a cloth wrung out of cold water. The macaroons will then easily peel off. The macaroons may be sprinkled, before baking, with almonds which have been blanched and shredded or chopped.

Almond Macaroons, No. 2

- 1 egg white
- $\frac{1}{2}$ cup granulated sugar
- 3 oz. finely chopped or ground almonds
(first blanched and dried)

Beat the egg white. Gradually beat in the sugar, and beat till very stiff. Add the chopped almonds. Put upon oiled paper and bake as in preceding recipe.

Almond Tartlets

Line patty-pans or pop-over tins with pie crust. Fill with the following mixture, and bake in a moderate oven till set:—

- 2 oz. finely chopped blanched almonds
- 1 tablespoonful very fine cracker-crumbs
- 1 egg, beaten
- $1\frac{1}{2}$ tablespoonfuls sugar
- 1 cup milk
- Few grains salt
- $\frac{1}{4}$ teaspoonful vanilla

Pie Crust

- $2\frac{1}{2}$ cups sifted pastry flour, measured lightly
after sifting
- $\frac{1}{2}$ cup cooking oil
- $\frac{1}{4}$ cup cold water
- Few grains salt

Mix the salt with the flour. Add the oil, and mix with a spoon till the oil is partly mixed into the flour. (Remember that to make *tender* pie crust, the ingredients must be put together with as little mixing as possible.) Add the water, and mix till the dough is just stuck together. This will be softer than a crust made with lard and a little harder to handle; more flour will have to be used on the board in rolling it out. But if you want a tender crust, use these proportions. Do not add sufficient flour to make the dough easy to handle.

Almond Cakes

Grind blanched and thoroughly dried almonds to a meal, by putting them through a food-chopper with the finest cutter, or by putting them through a loosely adjusted nut-butter mill. Add a little salt and sufficient cold water to stick the meal together. Form into little flat cakes, and bake. These make quite a concentrated food, and should not be eaten too freely.



MACAROONS, AND THE SUGAR, EGG, AND ALMONDS CALLED FOR IN THE RECIPE FOR MAKING THEM

THE MEDICAL MISSIONARY AT WORK



INDIANS PLEADING FOR HELP

F. A. Stahl

THERE are five hundred fifty thousand Aymara and over two million Quichua Indians, the larger part living in Bolivia. The Aymaras inhabit the high mountains, living in an altitude of twelve and eighteen thousand feet above the level of the sea. They are naturally a strong people, but the free use of intoxicating liquor, coupled with an ignorance of all the laws of health and hygiene, is the cause of much sickness and death.

We have been in touch with these people for nearly three years, and during the last year we have lived among them, conducting a school and caring for their sick. They come to us in great numbers, bringing their sick when it is possible; when it is not, we visit them at their homes. But the work is far too great for my wife and myself. We need more teachers. We must have means with which to build schools and purchase medical supplies.

The hardships connected with living in this high, cold altitude, with no conveniences, are nothing when compared with the pain it gives us to be compelled to refuse help to these needy ones. They send to us for help from a radius of

twenty-five miles, and some from much greater distances. It takes time to make such trips. When the home is reached at last, perhaps instead of one sick person, they have brought others, so that there are many to be treated. At times I am compelled to stay with the people a day or two, treating the sick, and teaching them how to keep well.

A child will come begging us to visit the mother or father who is ill. I have visited Indian families where orphan children were being cared for by those who had barely enough for their own households.

I have thought if people in the States understood the great need of these people, they would send means to care for and educate these little children; and many who lavish their affections upon dogs, if they only realized the great need of the human family, would also help.

Perhaps some who use tobacco or intoxicating liquors and read this article, will give up the use of these harmful things, and put aside the money thus saved, to help these people to help themselves. I do not forget that there are many needy ones in the States, but there are



A BAPTISM IN THE MOUNTAINS

homes for orphans, and schools where most of those who wish to do so can obtain an education; while these people have very little indeed, and they are anxious to learn. A few months ago a man came to me pleading to be taught to read. "I lack a

little, just a little," he said. At the same time he held a Bible in his hand, and had learned the letters, but could not put them together. He comes from a great distance, and this case is not an exception. As I stated before, we can not take care of all the work; our capacity is limited. [Should any LIFE AND HEALTH reader wish to assist financially among these Indians by mailing an offering to W. T. Knox, Takoma Park, Washington, D. C., the same will be faithfully applied as directed in helping the Indian work.—Ed.]



THE OLD WEAVER AND HIS FAMILY

When we tell them that alcohol, tobacco, and other things are harmful to them, many at once leave off using them, and say they wish they had known this before. So it is in every place where we have visited. They are eager to learn.

We have received word from Indians living on the islands in Lake Titicaca for us to please send teachers. A few weeks ago, we received a request for teachers, from two large Indian provinces, three days' journey from where we are located. I always send back word that we will do all we can to secure the teachers; and so they are patiently waiting.

Who will help shorten this time of waiting? Who will assist in giving these people a chance?

Puno, Peru.



THE LLAMA IS THE INDIAN'S CARGO ANIMAL, AND LIVES ONLY IN THE HIGH ALTITUDES

EDITORIAL

PUBLIC HEALTH IN BIRMINGHAM

BIRMINGHAM is not the only British town that could teach us in America some of the first principles of economical city government. Those most interested have succeeded in erecting a bogey-man to frighten the common people in America. It is "public ownership." We are told that public ownership will not work, but it does work; and where it has been successfully installed, the people will have nothing else, and are gradually buying up the private monopolies. Acting on the principle that "all monopolies which are sustained in any way by the state ought to be in the hands of the representatives of the people, by whom they should be administered and to whom the profit should go," the city of Birmingham owns its gas-works, water-works, electric system, and street railways; and the profits, instead of paying dividends on badly watered stock, are applied to diminish the "rates," including taxes as we understand the word.

Gas is furnished to consumers at the marvelously low rate of 39 to 62 cents per thousand feet, less 5 per cent discount, and the price of electricity has fallen from 8¾ cents per unit to 3 cents per unit. Last year the departments (gas, tramways, and electric supply) lessened the rates materially by paying into the treasury \$575,000.

In the matter of public health, Birmingham has an enviable reputation. Last year the mortality rate for the old city was 13.7 per thousand; for the greater city, including the recently incorporated suburbs, it was 12.6 per thou-

sand. Few cities of half a million population can boast so small a death-rate. And this healthfulness can not be attributed entirely to the situation of the city, for Birmingham lies, as it were, squarely on the backbone of England, so that water falling in the city finds its way partly to the German Ocean, partly to the Irish Sea. The high altitude has increased the difficulty of obtaining an adequate water-supply, and the remoteness of a river of considerable size has made the sewage problem more perplexing. But these difficulties have been successfully overcome.

It has long been realized by citizens of Birmingham that the prosperity of the city depends in large measure on the health of its inhabitants, and that a prerequisite to both health and prosperity is an abundant supply of pure water. Previous to 1905 water was pumped into the city from adjacent streams and from deep wells; but as the growth of the city rendered this supply inadequate, an act of Parliament was secured, granting to the city the right to acquire land in Wales.

The city immediately purchased a fifty-thousand-acre tract of moorland in Wales, about seventy-five miles distant, which furnishes an abundance of soft water free from all danger of contamination. This water, which is carried to the city by gravity, is filtered in Wales and again at Birmingham, so that the city now has an inexhaustible supply of pure water.

In the matter of sewage disposal, the city has had to make a number of experi-

ments. One was a sewage farm of three thousand acres, which it still controls, but does not use. The last system adopted was a bacterial system, and it is said to be the largest system of the kind in existence. At one time the tub and pail closets were in general use; but in the last fourteen years these have been gradually replaced by water-closets of modern type, with the result that the number of reported cases of typhoid fever yearly has gradually fallen from 533 to 73, a reduction of 86 per cent.

Birmingham claims the further credit that one of its physicians, Dr. Bodington, was the first to advocate the open-air treatment of tuberculosis, and that the city early began preventive work in this line. A policy was adopted encouraging farmers to isolate tuberculous animals, so that several of the herds supplying the city with milk have been freed from tuberculosis, and the work continues. This tuberculosis-free milk sells at a slight advance above ordinary milk.

The city, while free from the narrow streets of some other cities, still has alley houses with insufficient air, space, and light. The policy is to deal with these houses at about the rate of two a day, demolishing some and improving others.

Birmingham has been a pioneer in what is now known as town planning. The portion of the city most resembling a slum is lessening in population every year, and it is proposed later to assign certain areas for factories, and other areas for residence- and pleasure-grounds.

Not far from Birmingham—in fact, a suburb—is Bournville, a model garden city, where every effort has been made to give the laboring classes the benefit of a clean, healthful, beautiful city, with all the health and pleasures of the country and the conveniences of the city. But this is another story, which we give elsewhere in this issue.

Rural Settlement Work

MUCH has been written about the unhealthfulness of city life and the advantage of country life. All such sentiment overlooks the fact that the country is the breeding-place of some of our most serious diseases.

It is questionable whether typhoid fever could long maintain itself in a city like Washington were it not for the fresh importations from the country through milk and through the return of vacationists. Typhoid on the dairy-farm and typhoid in the country "health resort" add their important quota to the city's typhoid rate.

Hookworm disease is very largely a disease of the country; so is pellagra. Malaria is apt to be more prevalent in the country than in the city.

Of course the disease preeminently due to bad housing, tuberculosis, finds its greatest field in the cities, but the country is by no means exempt. While the country has the advantages of fresh air, isolation, and the like, it has the disadvantage of long distances, making adequate sewerage systems impossible, and public health inspection extremely difficult. In most places in the country a man is his own master on the farm, and can develop as insanitary conditions as can well be imagined without interference, unless he happens to be supplying milk to some up-to-date city, when the inspectors may insist that he produce the milk under comparatively good sanitary conditions. The city has its slums, but thanks to the charity associations and other benevolent organizations and to the activity of the city health departments, steps are being taken to mitigate these evils.

But in the outlying country districts away from the centers of population, where one might most reasonably find ideal conditions, there one finds those that are most deplorable.

In 1900 a call was sent to Philadelphia for a nurse who could be trusted with the full responsibilities of a typhoid fever case, to take supplies and go to Ledger, N. C., a place in the Appalachian Mountain forest thirty miles from a railway station, and attend an educated woman of means, who was extremely ill in her rough summer home. The nurse had to be doctor, nurse, cook, housemaid, etc. In six weeks the patient had recovered. The mountain people were much impressed by this recovery, for typhoid is generally fatal in these isolated communities. In a short time many were coming to the house to receive treatment for every conceivable ill.

This nurse, Miss Holman, in a few months had acquired a fair knowledge of the economic conditions of this people; and though she returned to her work in the city slums, there was the call of "the mountain folk in their terrible isolation and almost changeless lives,—life invalidism, puerperal fever, butchery in childbirth," etc.,—and she could not resist. She tells the story:—

"I left the city slums and returned to the mountains. The work immediately grew heavy,—a carbuncle on the back of the neck to clean up; a cut lip to sew together; babies to have 'rising' (infected) glands opened and drained; teeth to extract; wood-choppers' feet to sew on; skin cases now and then; 'halloo! halloo!' the night call to get me out. Motherhood on a mountaintop in a cabin with other children for the mother to care for while the husband travels for miles to secure the services of the nearest 'likely' person, be it doctor or only neighbor,—alas for American motherhood in isolated rural communities!—this phase of the problem alone, combined with the desire of my friends and the many urgent requests of the new friends in the mountains

convinced me that I might be of help.

"It was practising medicine?—Yes. Would you live in any community (miles from a physician) and let people suffer or die if you could help them? Would fear of scorn from women's clubs or rant of the uneducated, or fear of the newspapers or of the jail, cause you to hesitate a moment if you could relieve suffering or prevent death? Then be fair in your judgment of the work I attempted, and be just.

"Some of the people who had money paid for what care they received, and more did not. Some people are poor because they are honest; some rich because they are not honest. Some of the poorer paid in produce; many not at all. None gave what you would call an equivalent, counting the expense of living, keeping a horse, buying drugs and dressings and many other necessities; debt was inevitable. The work expanded. I answered calls day and night, which was proof, surely, that the people appreciated my work, which grew in every respect far beyond one woman's capacity."

She knew she must do more than her single-handed work if she accomplished anything worth while for this unfortunate people. She began her work single-handed and alone in 1900. In 1910 the Holman Association was formed, with headquarters at Baltimore, for the purpose of meeting as far as possible the needs of the rural communities by the establishment of centers somewhat analogous to the "settlements" in the cities. The first settlement established was at Altapass, N. C.

Like other benevolent enterprises, this one is crippled in its efforts to do all it would like to do for these poor Southern people, because of lack of funds. Many have responded liberally, but there is opportunity for the use of much more in the relief of distressing conditions in the Southern mountains.

AS WE SEE IT

Typhus and Typhoid TYPHUS fever was originally the better known disease, and typhoid means, literally, "like typhus." But typhus has never been very prevalent in America, and since the early part of the nineteenth century we have supposed ourselves free from it. Parts of Europe and Asia are never free from typhus, the disease being apparently maintained by insanitary conditions, and spread by the migration of the poorest classes. To most American physicians, typhus is absolutely unknown, except through reading.

In 1898 a New York physician described a series of cases of a disease "resembling typhoid fever," which was called after him, "Brill's disease." He has made two subsequent reports, the last in 1911, reporting a total of 255 cases.

Recently two surgeons of the Public Health Service who had been studying typhus fever in Mexico, had opportunity to study some cases of Brill's disease. As a result of animal inoculations, they have been able to show the identity of Brill's disease and the Mexican typhus (Rocky Mountain spotted fever); and as Brill's disease is undoubtedly of European origin, they have no doubt that Brill's disease, Mexican typhus, and the European typhus are the same disease. "If this conclusion is correct, typhus fever has been present in New York City for a number of years, and according to verbal reports made to us, has occurred in other large cities in the United States."

Though the disease as it appears in New York is mild, it shows a tendency to spread.

In the prevention of the disease, sanitation and hygiene play an important part. "There is no disease," Hare tells us, "in the prevention of which fresh air plays so important a part as it does in typhus fever. Indeed it may be stated that if a healthy man be supplied with plenty of fresh air while in the presence of the sick, he will have a fair chance of escape; whereas if the air of the room be impure, infection is almost certain." The usual disinfectants seem to have little value, unless used in concentrated form on the infected garments. Abundance of fresh air, the use of scalding water to all exposed woodwork and clothing, and the burning of mattresses and clothing that can not be so treated are recommended as preventive measures when the disease is present. If, as some one has stated, Mexican typhus is transmitted by means of body- and head-lice, this of course should have consideration in taking measures to check the spread of the disease.

✻

Conservation of Food Energy IN the November *Popular Science Monthly*, Dr. Henry Prentiss Arnisby, of the institute of animal nutrition of the Pennsylvania State College, has an article entitled "The Conservation of the Food Supply," which is an argument, from the increase in population, for the utilization of new sources of foods for animals.

He shows plainly enough that it is wasteful to turn the vegetable food which man can eat into meat. When our country was thinly settled, it mattered not how we obtained our animal

food. There was abundance of the vegetable products to feed the animals and to feed us.

"But we are rapidly approaching a limit to the production of meat from edible grains. Such a conversion is an exceedingly wasteful process. Of the solar energy stored in a bushel of corn, less than three per cent is recovered in the edible portion of the carcass of the steer to which it is fed." "In other words, the stockman who feeds his animals on grain is expending energy available for human use as fuel for his animal machines for the sake of recovering a small fraction of it as higher-priced and more-palatable products, a process which can hardly fail to remind one of the reputed origin of roast pig."

This calls to mind the obsession we seem to be under that animal products, and especially meat products, are essential to efficiency. Our high-protein men point to India and other Oriental tropical countries harboring parasites, which would sap the vitality of any nation, and conclude that the physical condition is due to vegetarianism.

Again, the coolies and the serfs, who often are vegetarians from sheer necessity and not from conviction, and who live in squalor and surroundings which would undermine any people,—these are referred to as examples of the effects of vegetarianism.

Why do not these advocates of a high-protein diet consider the long series of endurance tests, walking matches, etc., in which vegetarians easily hold the palm over other competitors?

I am not pretending that vegetarianism alone won such victories. The vegetarians were men of careful habits in other particulars, and probably the meat-eaters were beer guzzlers, and victims of other vices as well. My contention is that it is possible for a man to live in superb health on a vegetarian or at least on a meat-free diet, and he has the advantage that he escapes the danger of numerous parasitic diseases.

Not the finding of new foods for ani-

mals, but the conversion of our stock-ranges into tilled farms producing concentrated vegetable foods for man, will be the solution of the problem raised by our rapidly increasing population.

Think of it! Even now we are told that to furnish a man meat from absolutely healthy animals, it would be necessary to sell it at so many dollars instead of so many cents a pound. And as population increases, and animals must be kept in closer quarters, animal disease will increase rather than diminish.

With the best of inspection, if we eat meat, we eat sick animals; and if the meat happens to come from an unsuspected slaughter-house, it is almost certain to be horribly and disgustingly diseased. And yet we feel that we can not arrive at true manhood and womanhood or achieve true national greatness without eating liberally of such sick food! Let us away with such stuff.

❧

Youthful Prodigies

THE idea of educators that children should not be crammed with the three R's in their first year, and that they develop best by developing gradually, the kindergarten and hand training coming before the intellectual, has received some rude shocks by the publication far and wide of examples of remarkable intelligence in children who had been taught "book learning" from their tenderest years. For instance, we are told of an eight-year-old of Palo Alto, Cal.:—

"She can carry on a conversation in English, French, Spanish, Latin, Esperanto, Japanese, Russian, German, Polish, and Italian, while in the first five she can think as well as talk."

She is described as a bright, healthy child, a writer of verse, who scanned Virgil at one year of age, etc.

Similar accounts are told of other children who are marvels of proficiency in higher mathematics or other advanced

subjects, and the assertion is made that our modern methods are all wrong, and that if the intellectual education of children were begun early, and the children were taught early to concentrate their minds, we should have many more examples of the kind. Many papers,—and prominent papers,—with intelligent editors, all over the country had caught up the strain, and teachers really believed these stories and were querying whether we ought not to revise all our teaching methods, when Prof. M. V. O'Shea, of the University of Wisconsin, an educator of more than national reputation, in an issue of *Science* was unkind enough to puncture this bubble and let the wind out.

Professor O'Shea first attempted to learn the facts from those personally acquainted with some of these prodigies, and, as he says, he was not able to learn anything definite to bear out the printed reports; and then he proceeded calmly to show the absurdity of the whole thing. Even the average editor is not proof against "biting" at fantastic stories, and passing them on as true.

As far as he was able to study any of these cases, Professor O'Shea found that where the children were abnormally apt in a certain line, they showed as abnormal a deficiency in other directions.

But it is a pity these bubble puncturers could not let the bubbles grow and show their brilliant coloring. Of course they would burst of themselves eventually, but they are so pretty while they last!

✽

"Prohibition Does Not Prohibit" THE State pharmaceutical board of Pennsylvania last spring, after a campaign of more than six months, supposed that the unlawful sale of cocain had been

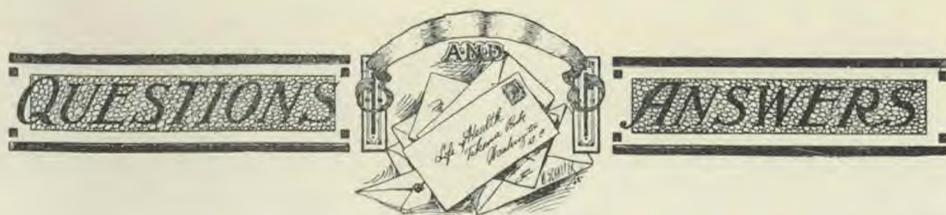
completely eliminated from the State; but evidently it has been going on secretly. A man arrested December 20 in Chinatown, Philadelphia, on suspicion of larceny, was found to have on his person five hundred dollars' worth of cocain and ten dollars' worth of opium. He, of course, will get a severe sentence, and every effort will be made to detect other violators of the law. But we would facetiously suggest that all this trouble might be obviated by taking the liquor men's view of the matter, and abolishing the law against the sale of cocain. It would do away with much violation of law.

The abolition of the cocain law would have the additional advantage of being very popular with the sellers and the users of cocain. And after all, what right has the government to interfere with personal liberty by making such laws? Hasn't a man a right to use all the cocain he wants to? What business is it to any one else? Why all this sumptuary legislation anyhow?

You will find very similar arguments in the liquor papers and in the papers bought by liquor advertisements.

✽

Lepers Isolated ONCE in a while a leper is discovered in this country, and then there is a hurrah and a hysteria, as if bedlam had been let loose. Like as not the poor fellow, after being chased from pillar to post, is isolated in a vacant lot with a twenty-foot fence around him! Suppose such treatment should be given to those suffering with venereal disease, who are far more dangerous and far more infectious. The trouble is the fence lumber and vacant lots would give out. It is a great deal easier to cage a few harmless lepers.



THE editor can not treat patients by mail. Those who are seriously ill need the services of a physician to make a personal examination and watch the progress of the case. But he will, in reply to questions sent in by subscribers, give promptly by mail brief general directions or state healthful principles on the following conditions:—

1. That questions are *written on a separate sheet* addressed to the editor, and not mixed in with business matters.

2. That they are *legible and to the point*.

3. That the request is *accompanied by return postage*.

In sending in questions, please state that you are a subscriber, or a regular purchaser from one of our agents; or if you are not, accompany your queries with the price of a subscription to LIFE AND HEALTH. This service is not extended to those who are not regular readers.

Such questions as are of general interest will, after being answered by mail, also be answered in this department.

Sour-Milk Tablets.—"Is it true that there are good and bad sour-milk tablets on the market?"

I am not so sure about the good tablets on the American market. I've seen several varieties that are not good. I never knew what it was to have a really delicious ripened milk until I was in Germany last summer. There, and later in Holland, I found a ripened milk such as we never obtain from any American tablets with which I am acquainted.

Yeasts and Ulcers.—"Is it true that yeast is a good dressing for ulcers?"

The writer can not vouch for it, though he has seen the statement that brewers' yeast has a wonderful cleansing effect on ulcers. He would like to see it tried first on "the other fellow."

Exercise for the Voice.—"Please suggest some exercise that will improve my throat and voice."

The following has been suggested and seems to work well: Yawn, with outstretched arms, throwing all possible energy into it. Yawning is an instinctive exercise which we have attempted to repress because it is "not nice." Repeat the exercise six or eight times. The best time to do it is when one is alone, just before retiring. There is then a feeling which makes yawning more natural, and there is not the embarrassment of being seen doing something naturally. The efficacy of the practise will be increased if the exercise can be taken at one or two other times during the day.

Herpes Labialis.—"Please give a remedy for cold-sores."

Touch each eruption with a drop of sweet spirits of niter, and "nature will do the rest."

Water Test.—"Can you give a simple test for fecal contamination of water?"

The following is said to be reliable: In a fermentation tube, or even a glass inverted over a saucer, place a quantity of the water to be tested, mixed with a small quantity of glucose, peptone, and common salt. Keep it at a temperature of 115°. If colon bacilli are present, indicating contamination by means of bowel discharges, gas bubbles will form. The tube or glass must be full up to the bottom so that the presence of bubbles may be detected.

Flies and Typhoid.—"In what way do flies help to transmit typhoid fever?"

The fly is born in filth, and obtains its first feed in discharges, usually stable or human. It often feeds in human privies. If there is a typhoid patient or a typhoid "carrier" on the place, hundreds of flies are infected, and carry the germs on their legs to the food in the house or to the milk-pans in the dairy-house. The rest of the story is obvious. The proposal to change the name from "house-fly" to "typhoid-fly" was a wise one. There is no excuse for the fly's existence, except as an incentive to make people clean up and keep clean.

Tuberculosis, Human and Bovine.—"What is the truth regarding the relation of human and bovine tuberculosis?"

The most significant figures I have seen are those given out by Dr. W. H. Park, health commissioner of New York. In 17 cases of tuberculosis in children, in 12 of which he found human and in 5 bovine bacillus, there was no appreciable difference in symptoms. There were ten cases of tuberculosis meningitis, all human. Of tuberculosis of the lymph-glands, in 27 examinations 9 were of

bovine origin and 18 of human origin. The bovine cases were nearly all under 15 years of age. Of 220 cases of tuberculosis of the lungs every case was human. In children there is considerable bovine tuberculosis; in adults it is rare. This means that milk is an important means of conveying tuberculosis to the young; but in realizing that fact, and obviating it by testing herds and Pasteurization, we must not forget that pulmonary tuberculosis is a house disease, caused by human bacilli from some former case of the disease, and favored by poor food, crowding, and lack of sanitation.

Ivy-Poisoning.—"Please give a remedy for poison-oak or poison-ivy."

A hot solution of potassium permanganate made strong enough to be quite dark, rubbed in so as to reach the poison in the vesicles, is effectual. If the skin is broken, the solution should be quite dilute, and may be applied by means of a compress. The stain may be removed by applying a solution containing a mixture of oxalic acid and sodium hyposulphite, freshly made, say a tablespoonful each of oxalic and hyposulphite to a pint of water.

Pimples.—"What can I do for pimples on my face?"

Take a cold or hot sponge daily. Exercise freely in the open air. Protect your face from cold winds. Observe regular hours. Avoid foods that cause fermentation or that "disagree," and all pastries, condiments, sweets, and cheese. Keep the feet warm. Locally apply hot sponging for five minutes, and follow, after drying, with an application of spirits of camphor. Be careful to wash the face thoroughly, using soap at least two or three times a week. Recovery is often tedious, and one will make the best recovery under an experienced physician.

Hookworm Treatment.—"Can you give a reliable treatment for hookworm?"

The following is effectual, but it is not safe to use it except under the supervision of a physician: In the evening give a dose of Epsom salts. In the morning give two or three doses of thymol two hours apart, and another dose of Epsom salts two hours after the last dose of thymol. Give no food whatever between the first and second doses of Epsom salts. During the entire day use no alcohol or fat, as they would cause the absorption of the thymol, and consequent poisoning. Butter, and even milk, must be omitted. Give dosage according to the apparent age of the patient. (If the patient is 20 years old and looks to be only 14, give dose for 14 years.) Up to 5 years, $7\frac{1}{2}$ grains daily (if in three doses, $2\frac{1}{2}$ grains each); 5 to 9 years, 15 grains daily; 10 to 14 years, 30 grains; 15 to 19 years, 45 grains; 20 to 59 years, 60 grains; 60 years or more, 30 to 40 grains. One is not warranted in attempting to use the treatment without medical advice unless in an extreme case in a mountain district where a physician can not possibly be reached.

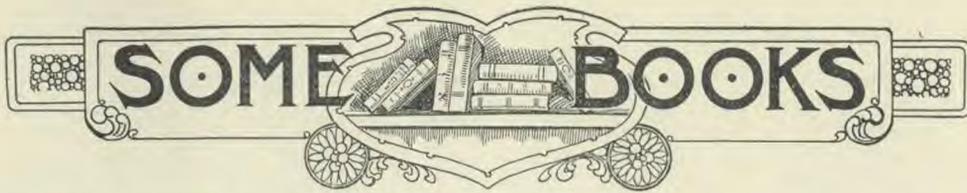
Greasy Hair.—"My hair is very greasy and oily, and it is falling out fast. I have tried different remedies, but find nothing to cure it. What would you suggest?"

Shampoo your head at least once a week with a good soap, and massage the scalp very thoroughly with the fingers morning and evening. You may derive some advantage by using a little kerosene or liquid vaseline on the scalp at night in connection with your massage. Of course it will be necessary for you to protect your pillow in some way from the grease. If there is a specialist in diseases of the skin in your neighborhood, you will do well to consult him.



CONVALESCENT

SOME BOOKS



Rational Treatment of Pulmonary Tuberculosis, compiled by Dr. Leon Bourgonjon, Los Angeles, Cal. Price, \$1, post-paid.

If this little pamphlet were what it claims to be, it would be about ten cents' worth, as books go. A private letter from the author stated that he had reduced the price to 50 cents. A perusal of the contents would suggest that the title should begin with "IR," and that the price should be nil. When a man, in the face of what is known about tuberculosis, can write such a book as this, it should pass without the courtesy of a notice. While the book gives some good suggestions to tuberculous patients, the implication that tuberculosis sputum is harmless and non-infectious is nothing less than pernicious.

Education, Personality, and Crime, a practical treatise built upon scientific details, dealing with difficult social problems; by Albert Wilson, M. D. (Edin.) London. Published by Greening & Co., London, 1908; 286 pages, illustrated. English price, 7/6.

The author believes that punishment never reforms criminals; that criminality in the vast majority of cases is the result of imperfect brain development, which is itself due to poor nutrition in childhood. The first sections of the book are devoted to the elucidation of the elementary principles of biology and physiology, with the purpose of showing the influence of heredity and environment on the individual. The third section, devoted to sociology, considers, first, the subject of education. The author finds the Scotch, who provide for a liberal education of their children, far superior to the English in brain power. He believes, however, that it is a mistake to take the poorly nourished children of the slums and compel them to attend school; and that many of these children would develop more fully if given the freedom and fresh air of the streets. In treating of the dietary of the poor, he speaks of the folly of purchasing meat when cheese would furnish proteins and other valuable food elements much more cheaply. Cheese, with potatoes and cereals, he suggests as affording an economical and well-balanced dietary. He is opposed to state schools, and especially to state religious tests, but believes that religious training is important in the schools.

Regarding the influence of state schools, he says: "As a critic of state methods, I should say that the three R's have filled many a

prison. Most of the criminals examined have passed average standards;¹ some have done well. In none have I found school influence producing any valuable effect. Had they been in good private schools, some would probably have been saved, and the others would have been better without the three R's. Instructed degeneracy is a formidable weapon against peaceful communities." Possibly his Scotch experiences have so colored his spectacles that he can not judge the public schools fairly. Possibly also the English public-school — or board-school — system has been planted on poor soil. I fear his condemnation of the policy of free education and compulsory education would not meet with much favor in America.

The author, who is a friend of the criminal, and has studied the ways of this class through the assistance of the Salvation Army, believes that the criminal is misunderstood and downtrodden, and that many criminals inherit a disposition favoring criminality, which, because of undernourishment, is greatly increased, and that the present procedure of the law tends, not to prevent criminality, but to turn these potential criminals into actual life-long outlaws.

The book has a number of full-page plates.

The Laurel Health Cookery; A Collection of Practical Suggestions and Recipes for the Preparation of Non-Flesh Foods in Palatable and Attractive Ways; by Evora Bucknum Perkins. Well Indexed; 525 pages. The Laurel Publishing Company, 68 River St., Marlboro, Mass. Post-paid, \$1.75 and \$2.25, according to binding.

Mrs. Perkins, who has been for many years an instructor in vegetarian cookery in Chautauquas and sanitariums, and who was a pioneer in hygienic vegetarian restaurant work, has given in this work the best results of a ripe experience.

The aim throughout the work has evidently been to make the book practical, and to avoid

¹The author blows hot and cold. In a later work, "Unfinished Man," he says, speaking of youthful prisoners: "Many of these lads have reached the fifth, sixth, and seventh standards at school. . . . When these children who are discharged from school at fourteen, reach the prison at sixteen or seventeen, they are found to be equal only to standard 2 or 3."

technicalities. Not only are the individual recipes excellent, but the general directions at the beginning of the book and preceding each article are particularly apt.

The author offers no recipes for "meat substitutes," for she has something better; namely, "true meat," or "trumese," as she calls it, the equivalent of the manufactured foods protose, nutfoda, and nut cero. She gives careful directions for making trumese, and also for making nutmese, the equivalent of the manufactured foods nuttolene, nutmete, nutcysa, and nutloaf. Directions are also given for making certain of the cereal health foods in the home. The recipes not only for dishes from these preparations, but from legumes, vegetables, cereals, etc., are ample, and cover the entire field of hygienic cookery.

While an effort has been made to enable those who desire to do so to entertain elaborately and artistically with a vegetarian menu, the wants of those who wish to live the simple life are carefully considered. There are 56 recipes for cakes without baking-powder, and 10 recipes for cakes without eggs, 88 recipes for unleavened breads, and 42 for breads without the use of eggs.

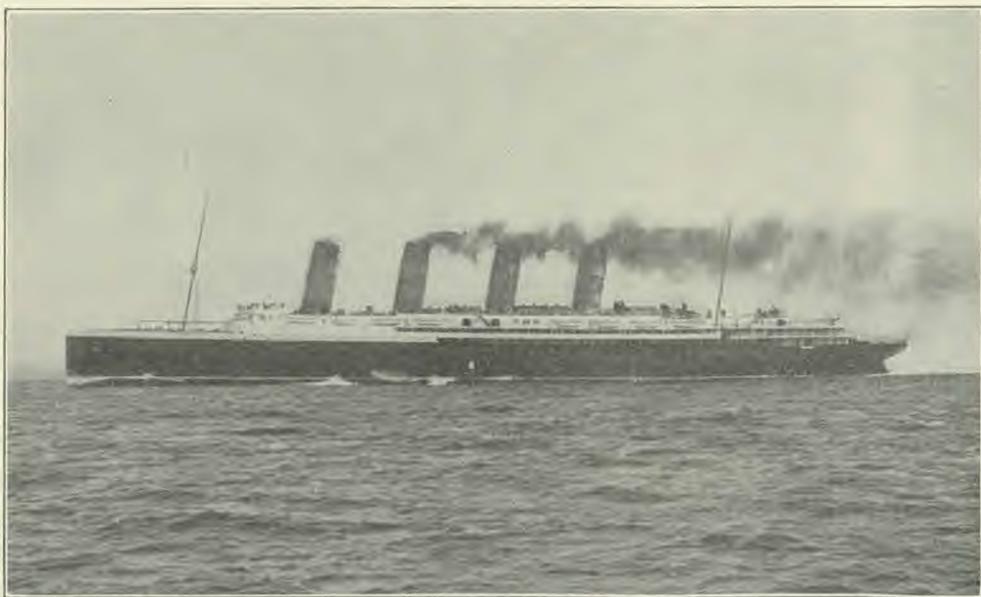
A Manual of Mental Science, by Leander Edmund Whipple. Published by the American School of Metaphysics, New York. Price \$1.

Mental science is about as elusive as Christian Science. Frankly, it is too much for my poor unsophisticated brain to grapple with. No doubt the author knows what he is driving at, and perhaps he has stated it in the plainest English at his command; but to the

humble reader it is simply incomprehensible, just so much jargon. It appears to be a metaphysical system intended to take the place of religion, and to furnish a basis for morals and physical healing. The actuality of disease is denied. "There is no actual fact, truth, or reality to any disease." It is "erroneous thinking that calls sickness real." All the directions for gaining health are on the line of mental affirmations—not one word about diet, or avoidance of infection. If a young man sowing his wild oats, suddenly and unexpectedly finds himself a victim of a loathsome disease, it is because of some wrong thinking on his part,—which I will grant; but the wrong thinking was that which led him to sow wild oats. If germs get under one's skin and form a carbuncle on his neck, it is simply wrong thinking. The carbuncle does not actually exist! This is too metaphysical for me.

Easy Steps in the Bible Story, by Mrs. Adelaide Bee Evans. Review and Herald Publishing Assn., Washington, D. C.

This is not an ordinary story-book, but it is a book of stories of the Bible heroes,—stories of the most interesting kind,—each one written so as to weave into it gems of truth. Though the book is written in easy words, easily comprehended by every young child, the author has accomplished the difficult task of putting it into good forcible English that older persons can read with delight and advantage. The mechanical work is good, the type being large and the illustrations attractive. It would make an excellent present for a child.





Personal Liberty

THE highest personal liberty that a mortal can have is the right to defend his home, his children, his business, his community, and his country. The liquor traffic is a murderous attack upon all these.—*William E. Johnson, in American Advance.*



The National Insurance Bill

THE bill is quite clear with regard to the benefits that are to be received by the insured from the medical profession, quite clear that in return for definite contributions free medical service is to be supplied, but quite vague as to the payment of those who are to supply it.—*Lancet (London).*



Medical Testimony

TO-DAY the cigarette or the pipe and tobacco-pouch take the place of the snuff-box, and the habit of smoking is almost universal among students. There seems to be a decided opinion among physicians that tobacco is one of the prime factors in arteriosclerosis, and the nickname of coffin nails, applied to cigarettes, is probably well deserved.—*Peter Scott, M. D., in Medical Review of Reviews.*



The Role of Salts in the Preservation of Life

LESS is known of the rôle of salts in the animal body than of the rôle of the three other main foodstuffs, namely, carbohydrates, fats, and proteins. As far as the latter are concerned, we know at least that through oxidation they are capable of furnishing heat and other forms of energy. The neutral salts, however, are not oxidizable; yet it seems to be a fact that no animal can live on an ash-free diet for any length of time, although no one can say why this is so.—*Prof. Jacques Loeb, Carpenter Lecture delivered before the Academy of Medicine, N. Y., Oct. 19, 1911.*



When the Hen Embalms Her Eggs

APROPOS of a recent discovery commented on in these columns, to the effect that hexamethylamin and some other antiseptics, given in the food of the hen, affect the egg, we wonder what Dr. Wiley will do with a hen that embalms her own eggs. By the aid of science,

it seems, she can now do it; and from what we know of the perverse fowl, we fear that she will do it. Such a discovery as this can scarcely elude the grasp of the astute poultry producers and egg embalmers. Will it be applied practically? and if so, will its effects be pernicious or beneficent? Shall we be poisoned by both the ham and the eggs, or will it now become possible for every farmer to stock his own storage warehouse and hold down the winter prices on eggs?—*Journal American Medical Association.*



Contaminated Oysters

THE Bureau of Chemistry of the Department of Agriculture is entitled to the gratitude of the community for its vigilance and promptness in seizing a cargo of oysters, taken from a point down the river, which proved, on examination, to be alive with disease germs.

The seizure has demoralized the oyster market, and thrown the local lovers of the bivalve into consternation. Better this, however, than an epidemic of typhoid fever or other disease which might have resulted if this timely seizure had not been made.

The truth is that the oyster is almost as dangerous as it is delicious. There is little danger that its popularity will be permanently impaired, but continued activity and watchfulness on the part of the authorities is absolutely necessary.—*The Washington Times, Editorial.*



A Thirsty Continent

THE amiable theory that drinking wine is a fine way of becoming temperate looks stranger than ever in view of some recent figures on the world's consumption of alcoholic beverages. If drunkenness is really very rare among the southern wine-drinking races, as compared with its shocking prevalence among us, their powers of resistance must be highly developed, or else the consumption of alcohol is much more evenly distributed.

Against our 20 gallons of beer for each person, for example, France is credited with 39 gallons of wine and over 9 gallons of beer, while her consumption of spirits is actually greater than ours by more than one third of a gallon a head. Italy uses 31 gallons of wine

a head, and more than half as much spirits as we do.

Germany, Austria, and Hungary, like France, exceed us in consumption of spirits. On the other hand, we are only 6 gallons of beer behind Germany, about 35 gallons a head behind Belgium, and 11 gallons behind England.—*Saturday Evening Post*.

✽

Overeating Declared to Be Menacing the Race

THAT girls have more food and less work than is good for them is the belief of Mrs. Ellen H. Richards, instructor in sanitary chemistry in the Massachusetts Institute of Technology. "The result is," she says, "that grandchildren fail. It is not overeducation, but overnutrition that threatens race extinction. Women do not seem to realize that overnutrition as well as undernutrition weakens the body and subjects it to evils that make it incapable of survival. Wives who overeat, and who are especially fond of rich, starchy foods, rarely are mothers. Formerly, it was the underfed who failed to survive, but now I believe firmly it is the overfed among whom the elimination is taking place. The abundance of food induces men and women to eat and drink more than their systems can care for. The woman who makes her luncheon a medley of croquettes, salads, and sweets, which never can agree, and of dishes dressed over so that the original ingredients may never be revealed, really is paying from fifty to seventy-five cents for the next day in bed."—*Woman's National Weekly*.

✽

Wrong Treatment of Constipation

PROBABLY in no other feature is the usual current therapeutics more open to improvement than in the treatment of constipation. No affection is more common among civilized people, and none is more generally treated ineffectively. The resort to purgative drugs for sluggish bowels is well-nigh universal. Patients rarely seek medical advice for the trouble early, but dose themselves with laxatives till it has become chronic and aggravated. Even then, they will not often accept any curative treatment which involves time and expense, such as a course of massage, electricity, or mechanical vibration (especially intrarectal), some one of which, or a combination of them, nearly always proves effective in skilful hands, with the indispensable laxative diet and regulated exercises, often even in chronic advanced cases. Doctors should warn such patients emphatically that neither purgatives nor the milder laxatives ever cure constipation, and that, when continued very

long, they may render it incurable by any method.—*Boardman Reed, M. D., in Journal of the American Medical Association*.

✽

Smallpox and Vaccination

IN November, 1910, an aged farmer, his wife, and an unmarried daughter, tiring of their old home in Ohio, decided to make a prolonged stay in Mexico City, and later in Marion County, Oregon, where two sons of the aged couple were in business. After visiting in Mexico City they left for Oregon, when the conductor in the car in which they were traveling discovered a patient just convalescing from smallpox, occupying a seat directly opposite them in the car. At the next station the patient was forced to leave, and without any attempt at disinfecting, or quarantining, or vaccinating the passengers, the train was allowed to proceed. The family arrived in Oregon on Thanksgiving day, 1910. The drama now moved swiftly. The mother at once gave evidence of a mild infection with smallpox. No medical aid was sought for her. On December 5 her husband was attacked with a virulent form of the disease, and died in two days, before the eruption had reached the stage of pustules. On December 7 the son whom they visited succumbed to a fatal attack, and on December 10 the unmarried daughter and the son's wife died of the disease. A small grandchild, aged four, was next attacked, but, unfortunately, recovered frightfully disfigured. Three nurses were sent to the family before a diagnosis was made, only one of whom had been vaccinated. The two unvaccinated ones and a domestic employed in the house, who also had not been protected by vaccination, took the disease, but recovered.

The mother of the family, who had been vaccinated fifty-five years previously, escaped with so mild an infection that the disease was not recognized. Of the remaining members of her family, her husband, son, daughter, and the daughter-in-law, none of whom had been vaccinated, succumbed rapidly to the scourge, and of the unvaccinated ones the only one left in the family who recovered was the little four-year-old boy, whose disfigured face will always stand as a most effective argument for the beneficial effects of vaccination.

This experience no doubt has been duplicated in other States. The apathy of many persons will make possible similar cases, until a strong demand by the informed and aroused part of the inhabitants of these United States will demand the rigid enforcement of compulsory vaccination, with no excuse for the conscience clause which exempts ignorant people in England.—*Lancet-Clinic*.



ABSTRACTS



IN this department, articles written for the profession, and public lectures on hygiene, which contain matter of interest to LIFE AND HEALTH readers, are given in abbreviated form. Sometimes the words of the author are given, but more often the passage is abbreviated, or else paraphrased in popular language. Technical matters and portions of articles having no popular interest are omitted. Credit the authors for what is good, and blame "us" for the rest.

HEALTH CONSERVATION A PROBLEM FOR THE WHOLE PEOPLE

THE health of the nation is the wealth of the nation. This is the age of conservation.

I believe in the conservation of our national health. I believe in saving, and am in sympathy with the conservation interests of this country. But conservation does not mean miserliness; that is, hoarding and never using. Conservation means that our resources shall be used in such a way as to give the benefit to the masses.

When this conservation movement was inaugurated, it was a long time before that asset which is the greatest of all—national health—had any discussion in the meetings. Now it is given great prominence as one of the most important of our national assets.

How much is our national health worth? If it is of no value, it is not worth preserving.

As a mere money proposition the health of our nation is the most valuable asset we have. The moment a man becomes ill, he is worth nothing as a producer; he becomes a burden, a consumer. Every year a very large percentage of our productive power is lost by actual ill health.

Now when you want to appeal to Congress, you must appeal to the pocket. Congressmen are only human. They are not won by sentiment or rhetoric, but by hard facts.

In working for a department of public health, congressmen were not the least affected by appeals to regard the widows' tears, but when a life insurance man showed how conservation of health increased the earnings of life insurance companies, the congressmen said, "What is good for the life insurance companies is good for the country and for us," and after that they took more notice of arguments showing how a health department would help conserve the public health.

I have no plan to offer as to how the public health may be conserved. My purpose is to get the public to have an interest in public health.

The instinct for life is the strongest instinct in the human animal. Every normal person

wants to live to old age; and unless we die of some preventable disease, or are run over by a motor-car, we ought to live out our allotted days.

The most important of the preventable diseases are those which mow down the infants, and the principal cause is lack of good food. The child, up to five years of age and especially during the first year, can not endure poor food. Infant mortality is on the decrease because physicians have discovered that the main cause of infant death is poor food, and they have taken some measures to remedy this evil. In statistical tables the average age is greatly increased. Probably in every country, except India, there is an increase of the average span of life, and there it is as low as twenty-one years. In this country the average is forty years or more. This does not mean that adults live longer than they used to, but that the infant mortality has been materially decreased.

Where the food of infants has been carefully supervised, there has been a remarkable diminution of childhood mortality. In Rochester, which has a most efficient health administration, the infant mortality has decreased from one hundred seventy-five per thousand to less than seventy per thousand. What is the money value of that conservation?

I recently told the people of New York City that they, and not the dairymen, were to blame for dirty milk, for the reason that they buy dirty milk when they can get it a little cheaper. The dairyman who wants to go to the additional expense of providing clean milk receives no encouragement.

If the city of New York would devote two hundred fifty thousand dollars a year for a supply of pure milk for infants, the result would be a saving of ten thousand infant lives; but the legislature refuses to do anything.

The government is more generous in the matter of domestic animals than of human beings. In an emergency the Secretary of

Agriculture takes money from some other fund to save animal life, and at the next Congress this expenditure is authorized about as soon as the traveling expenses of the congressmen.

We must not blame the legislatures, however. The wonder is that the constituents do not care for health. The farmer who is greatly concerned over some disease of his animals is indifferent to the diseases of his children. When the people at large care as much for their own health as for the health of their animals, the legislators will take notice and act accordingly.

As an example of what intelligent care for the health will do, in the Russo-Japanese war there were none in the Japanese hospitals from typhoid fever or similar preventable disease. The men who went before the army were bacteriologists, and they examined the springs, placarding those which were dangerous.

A few years ago the French attempted to build a Panama canal. They had great ability, much money, and splendid energy; yet they failed because of disease. It was not the American dollar nor the American engineer but the chemist, the bacteriologist, and the physician who have made the canal possible. Now Panama, once the white man's grave, is a health resort, with no disease and hardly a death.

In our army along the Rio Grande there is no such sickness as there was in the recent war with Spain. Had it not been for the careful work of the army surgeons, there would be from fifteen to twenty-five per cent of the men in the hospitals. As a matter of fact, they are having better health conditions than we have in the city of Washington. If our soldiers are worth saving, should not the citizens of Washington, even though they have no vote, be protected? We have a very high mortality rate here, and we have learned that it is not due to the water; but we do know what the cause is, and Congress is unwilling to appropriate sufficient funds to carry on an investigation in this line.

The Vienna hospitals are the finest perhaps in existence, both in their appointments and in the variety of diseases. Formerly they used to have large numbers of typhoid cases in their wards, in fact, one of the most popular wards was the one devoted to typhoid fever. Now there is not a case of typhoid fever in Vienna hospitals. The reason is the city has a new water-supply directly from the Alps.

Typhoid fever and tuberculosis, which are both fateful diseases, choose the youth and those of middle age, those right in the prime of life, and cut them off in the midst of their usefulness. If the people will demand protection from these diseases, they can have it.

Twenty-five years from now we shall look

back in astonishment at our present apathy concerning these diseases. Segregation is the remedy, especially for tuberculosis; but no one is willing that he or his friends should be segregated. The line by Tennyson, "So careful of the type she seems, so careless of the individual life," should be our ideal. Each of us should be careful of the interest of the community, and each community should provide well-appointed places of segregation where patients may live in comfort. Massachusetts segregates incipient cases of tuberculosis, and of these seventy-five per cent recover; but the really dangerous tuberculosis cases, those who are a menace to their neighbors, are not segregated. If we can segregate to save the life of the patient, can we not segregate to save the life of friends and relatives? My purpose is not to lay plans, but to awaken in you the thought that the health of the nation is its greatest asset, that the state is the guardian of the health, and that the state can free itself from disease; and I urge you to cease opposing state control, and to vote for it.—*Harvey W. Wiley, address before the Woman's Christian Temperance Union, Washington, Dec. 20, 1911.*



The Relation of the Saloon to Insanity

INSANITY and epilepsy are the products of civilization. Primal man is practically free from these derangements. In India the per cent of insanity is infinitesimal as compared with Great Britain. In China insanity is rare. Last year we had 187,000 cases of insanity, not including epileptics. The increase in insanity is much more rapid than the increase in population. We have spent \$250,000,000 for hospital buildings, and an annual \$30,000,000 for maintenance. From hospital authorities we have it that alcohol overshadows all other causes in the destruction of the mind. It does this in three ways:—

1. By direct effect upon the drinkers.
2. By hereditary effect upon the children, causing a predisposition to insanity.
3. Indirectly through the poverty and trouble caused by drink.

The record of wet States shows that 27% of commitments are due to alcohol; in dry States, only 6%.

In eight States having prohibition there is one insane to 873 inhabitants. In all the rest of the United States there is one insane to every 490 of the population. Wisconsin, which has more saloons in proportion to the population than other States, has a greater proportion of insane than all its neighbors. The beer which is stated to have made Milwaukee [in]famous seems to have been a prominent factor in this pitiable record.

It is unquestionable that alcohol favors the increase of insanity, and saloons foster alcoholism. Whatever favors an increase of saloons favors an increase in insanity.

Our duty to our weak brother lays on us the duty to smite this evil. "It is not the will of your Father which is in heaven, that one of these little ones should perish."—*Filmore Condit, of New York, Superintendent of the New Jersey Anti-Saloon League, address before the National Convention Anti-Saloon League, Washington, D. C., December, 1911.*

✽

The Treatment of Simple Catarrh

THE cause of acute cold in the head is not well understood. Various germs have been credited with being the cause, but there is no uniformity of opinion, and the idea that there is a "cold germ," has long been abandoned.

There are, as in other diseases, predisposing causes,—lowered resistance, diminished tone due to anemia, etc. There is first a local anemia, and congestion of the mucous membranes, caused by such influences as drafts, especially upon parts of the body in connection with the nasal mucous membrane, through the sympathetic nervous system.

Chilling, drafts, wet feet, are the usually credited causes of cold in the head; but to the bacteriologist these influences merely result in an excessive secretion of mucus, which supplies an excellent culture medium in which the

germs commonly present in the nose may grow rapidly.

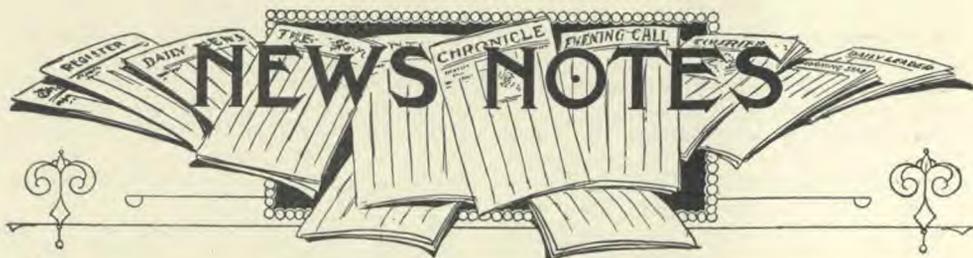
Were it not for the growth of the germs, the disturbance of the circulation would soon right itself, even if, on account of the chilling, the nasal mucous membrane had attempted to do the work of the sweat-glands, and had secreted an irritating mucus.

As a result of the rapid growth of germs, the fluid soon takes on a yellow, purulent form. The bacteria readily grow in the mucus, producing poisons which stimulate the tissue-cells to increased production of mucus. This vicious circle may go on until a condition of chronic catarrh is produced. But ordinarily a robust person with a cold will make a fairly good recovery even without any treatment. Methods which dry up the secretions are effectual if they are taken at the start, by removing the culture medium. Such methods as purging and sweating act by restoring the circulation and relieving the local congestion.

Local antiseptics is of little value either theoretically or practically.

When the cold has reached the subacute stage, the quality of the blood should be improved by building up the general health. This increases the resisting powers of the blood, which then renders additional assistance to the overworked cells, in neutralizing the poisons that attack them. Then the cold rapidly disappears.—*A. Parker Hitchins, M. D., in Medical Record.*





Suicide by Quinin.—A despondent New Jersey young woman took ninety-four two-grain pills of quinin—and died.

Vice Resorts Segregated.—The present administration of Philadelphia, after consultation with prominent clergymen, has decided that vice resorts shall be restricted to certain quarters of the city, and that no liquors will be allowed in connection with them.

Latest Vital Statistics.—Bulletin 109, on Mortality Statistics for 1910, the latest on the subject, relates to the Census Bureau's death registration area, which on July 1, 1910, had an estimated population of 53,843,896, or 58.3% of the total for continental United States. The total number of deaths in 1910 from all causes was 805,412. Tuberculosis was the most important cause, being responsible for 10.7% of the total; organic diseases of the heart followed, with 9.5%; diarrheas and enteritis, 7.8%; pneumonia, 6.7%.

Anything for Money.—The *Kennebec (Maine) Journal*, which has been standing for clean, honest journalism, states that papers which pose as respectable are in the habit of farming their editorial columns to the highest bidder, and therefore print as their own views the paid stuff furnished by the Brewers' Association and Wholesale Liquor Dealers' Combine. When the power that depends for existence and prosperity on the life-blood of our boys can buy with its millions the press of the country, how much better are we off than were the citizens of the Roman republic in its last days?

Are Children Worth Saving?—Congressman Peters, of Massachusetts, recently asked whether the children of the United States are worth one eighth as much as bugs. The Bureau of Animal Industry costs \$1,654,750 a year, and the Bureau of Plant Industry \$2,051,686. A children's bureau is asked for, at an expense of \$29,440, which would by investigating child-labor conditions, causes of infant mortality, etc., effect a marked saving in child life. Shall we be guided by the higher, more humane motive, or shall our government be run entirely on the basis of dollars and cents? Shall we value a plant or an animal—because of its money value—more highly than a child?

General Grant Against Canteen.—Gen. Frederick D. Grant, who at one time favored the restoration of the canteen as "the lesser of two evils," has, as a result of the changed conditions in the army, issued, above his signature, the statement: "If the question were left to me, owing to this change of condition, I would not recommend the restoration of the canteen."

Americans Second in Meat Eating.—The people of the United States average a greater consumption of meat than those of any other country except Australia. According to figures compiled by the Department of Agriculture, the average annual meat diet in Australia is 262.6 pounds, in the United States 220.5 pounds, in New Zealand 212.5 pounds, in England 205 pounds, in Germany 117.1 pounds, in France 78.9 pounds, in Italy 46.5 pounds, in Russia 48 pounds, and in Spain 49 pounds.

Dry Fire-Extinguishers Useless.—C. C. Young, chemist of the Kansas State Water Survey, in a recent issue of the *Dictetic and Hygiene Gazette*, asserts that dry fire-extinguishers, which are usually sold for about three dollars, are filled with a mixture composed practically of saleratus,—about 10 cents' worth,—and that these extinguishers are of no more value in extinguishing a fire than is so much sand. His advice is to throw all such contrivances onto the scrap-heap, and to install the soda-water type of extinguisher, or pails of water.

Remarkable Eye Surgery in Paris.—A piece of the transparent cornea of an eye that, after removal, had been kept in a serum in a refrigerator for eight days, was transplanted in the eye of another patient, who had been rendered sightless by a corneal ulcer, caused by a lump of lime entering his eye. The piece of cornea had been neatly cut to fit the little oblong hole cut for it, 1/5 by 1/6 inch, in the surface of the patient's eye. Though it was not sutured, it retained its place, and in two days the union was complete, and the eye was transparent, with a vision of one-tenth normal. Seven months after the operation the eye was still doing good work. A part of one eye had been successfully grafted on to the eye of another man.

Pellagra in Nyassaland.—Dr. Stannus has reported the prevalence in Nyassaland, South Africa, of what appears to be a new disease in that section (it may have been present though unrecognized previously), which he has identified as pellagra. It is interesting to note that the natives who have the disease rarely if ever eat maize. Their staple food is rice.

Typhoid Fever Bacillus Carriers.—The *Journal of the American Medical Association* of February 24, publishes an article based on work done in the St. Louis city laboratory in which the following conclusions are drawn: A large percentage of typhoid convalescents leave the hospital as carriers. The bacilli may be discharged by means of the feces, the urine, or by expectoration.

Changing the Form of Stimulation.—Coinciding with a decreased consumption of liquor, especially beer, in Great Britain, so it is said, there has been a corresponding increase in the use of coffee, cocoa, and especially tea. The average Englishman now uses annually half a pound of tea a month. The annual consumption is 276,000,000 pounds as against 111,000,000 in the United States and 136,000,000 in Russia, countries with more than twice the population of Great Britain. The consumption of beer fell from 30.8 gallons per capita in 1900 to 25.9 in 1909.

The Sand-Fly and Pellagra.—J. S. Hunter, of Lawrence, Kans., has published in the *Journal of the American Medical Association* of February 24 a preliminary report of investigations in Kansas tending to prove the validity of the sand-fly theory. The work will be continued on a larger scale.

Artificial Respiration Machine.—It seems that the pulmotor, which automatically pumps oxygen into the lungs of an asphyxiated person, is making good, and has restored to life persons that to all intents and purposes were "dead"; that is, persons who were apparently dead, and hopelessly past recovery by old methods of restoration.

Contamination of Roller-Towels.—The bacteriologist of the Massachusetts State Board of Health examined bacteriologically the roller-towels in a number of toilet-rooms, and found evidence on a considerable proportion of the towels of contamination with human feces. As there are many unknown typhoid "carriers" who pass typhoid fever bacilli in their discharges, the question arises, How many mysterious cases of typhoid fever arise through roller-towel contamination? The city of New York has taken the advance step of prohibiting the use of common roller-towels in public lavatories, in hotels, railway stations, and the like.

The best antiseptic for purposes of personal hygiene

LISTERINE

Being efficiently antiseptic, non-poisonous, and of agreeable odor and taste, Listerine has justly acquired much popularity as a mouth-wash, for daily use in the care and preservation of the teeth.

As an antiseptic wash or dressing for superficial wounds, cuts, bruises, or abrasions, it may be applied in its full strength or diluted with one to three parts water; it also forms a useful application in simple disorders of the skin.

In all cases of fever, where the patient suffers so greatly from the parched condition of the mouth, nothing seems to afford so much relief as a mouth-wash made by adding a teaspoonful of Listerine to a glass of water, which may be used *ad libitum*.

As a gargle, spray, or douch, Listerine solution, of suitable strength, is very valuable in sore throat and in catarrhal conditions of the mucous surfaces; indeed, the varied purposes for which Listerine may be successfully used stamp it as an invaluable article for the family medicine cabinet.

Special pamphlets on dental and general hygiene may be had upon request.

LAMBERT PHARMACAL COMPANY
LOCUST AND TWENTY-FIRST STREETS :: ST. LOUIS, MO.

Pasteurized Milk.—Dr. Nathan Strauss has recently offered \$1,000 for any case of rickets or scurvy in a child caused by the use of Pasteurized milk. The jury to decide on the validity of applications for this award is composed of Surg.-Gen. Rupert Blue and the eminent sanitarians, Drs. M. J. Rosenau and John Anderson.

Cancer Increasing.—In the registration area of the United States there were in 1910, 41,039 deaths from cancer, or 76.2 per 100,000 population as against 73.8 per 100,000 population in 1909. This is the highest cancer rate ever recorded. There are three probable causes for the increase in cancer: (1) Better diagnosis; (2) more people living to the cancer age, on account of the reduction of death from other causes; (3) actual increase in tendency to cancer. Possibly all three exert an influence.

Vegetables and Typhoid.—Recent experiments have shown conclusively that a plant growing up through polluted soil will take up on its leaves germs from the soil, and that an occasional rain does not necessarily wash away the germs. Lettuce may thus be a means of transmitting typhoid fever from polluted soil, even if the pollution occurred before the seed sprouted. It is well to remember the fact that raw vegetables, unless one knows where and how they have been grown, do not carry a clean bill of health.

Pellagra Deaths Increasing.—In the registration area of the United States 2 deaths from pellagra were reported in 1900, 2 in 1903, 1 in 1904, 23 in 1908, 116 in 1909, and 368 in 1910. Doubtless there were deaths from this disease which were not properly diagnosed in former years, but the evidence indicates that pellagra is becoming more frequent. The worst pellagra districts are not in the registration area, or these figures would be larger. Of the 368 whose deaths were reported in 1910, 263, or 71.5 per cent, were females.

Life Insurance and Health.—The Southern States Life Insurance Company, of Charleston, W. Va., has given over to the Anti-Tuberculosis League of West Virginia the preparation of No. 5 of the series of health bulletins which it sends out to its policy-holders. This bulletin deals entirely with the prevention and cure of tuberculosis, and it is brimful of practical suggestions on the subject. The insurance companies that have begun this educational campaign are to be commended for their contribution to the cause of disease prevention.

Hookworm Treatment.—During 1911, according to the recent report of the Rockefeller hookworm commission, 140,000 persons were treated in nine Southern States last year for hookworm, at an average cost of \$1.27 each.

Unequal Pupils and Tuberculosis.—Dr. Teuchter, of Cincinnati, has called attention to the fact that a difference in the size and the quickness of reaction of the two pupils, when not caused by some abnormal condition of the eye itself, is an early diagnostic sign of tuberculosis. In these cases the affected pupil is larger than the other, and reacts to light more sluggishly.

Prevention of Scarlet Fever by Vaccines.—Two years' hospital experience in administering streptococcus vaccine to nurses about to attend scarlet fever cases showed the following results: A very light case of scarlet fever occurred in a nurse who had received vaccines, while among a considerably smaller group under identical conditions and environment, who had not received vaccines, five times as many cases have occurred, and those not particularly light.

Leprosy in New York.—Dr. Howard Fox is reported to have seen as many as thirty lepers in New York City in a single year who are continuing their usual occupations. Some of them have had the disease for years, and do not seem to be spreading it. Of course if neighbors recognized the disease as leprosy, there would be a stampede—for does not the Bible say something about leprosy? Dr. Walter Conley, in charge of the leper colony in New York, does not believe that leprosy is a menace to a community in this climate. He believes that leprophobia, or fear of leprosy, is more injurious to the community than the leprosy itself.

New Enemy to Food and Drug Legislation.—Patterning after the patent medicine men, the manufacturers of so-called "ethical proprietaries" have recently combined, and have shown their colors by protesting against an amendment to the Food and Drugs Act which would forbid the use of extravagant claims for drugs. According to a recent ruling by one of the courts, a remedy of plain salt and water can be sold as a cancer cure or a tuberculosis cure, and there is nothing in the law as it now reads to prevent it. And these manufacturing druggists do not intend, if they can help it by fair means or foul, to allow an amendment to pass which would render the law efficient against such medical frauds.

Boulder-Colorado Sanitarium, Boulder, Colorado

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.



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 all fully equipped, and include vibration of every kind that is beneficial to invalids.



Besides the above, the splendidly equipped treatment-rooms provide for the use of all forms of hydrotherapy, such as electric-light baths, hydro-electric baths, Nauheim baths, shampoos, salt glows, and packs of all kinds. Contagious and infectious diseases not received. A postal will bring a beautifully illustrated booklet free.

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

A LIVE WIRE



Touch a real live wire anywhere along its entire length, and there is a sharp reminder that it is charged with an active current. So with this book—open it anywhere at random, and there is that confronts the eye which leads to a continuous reading of it.

“Boy Wanted,” by Nixon Waterman, is a live-wire book for live-wire boys—boys who want to be something and to do something. Its arrangement is unique and pleasing. 134 pages, handsomely bound, and illustrated with full-page plates. Price, \$1.25.

Review and Herald Pub. Assn.
WASHINGTON, D. C.

One Cent will send a vital health message to your friend who needs it.

We have prepared a series of ten tracts on important health topics, all right to the point and thoroughly readable, and printed just the right size to go in an envelope. An unobtrusive but effective way to send your friend the message he needs is to slip the right tract into your next letter. They are known as the

LIFE AND HEALTH LEAFLETS

and a single bunch costs just a dime, post-paid to you. Special prices on large quantities either assorted or of single numbers. Titles:—

1. Alcohol and Disease.
2. Liquor and Poverty.
3. Counting the Cost of Alcohol.
4. Is Alcohol a Food.
5. The Cure for National Intemperance.
6. Patent Medicines.
7. Simple Treatments for a Cold.
8. Some Effects of Tobacco Using.
9. Pointed Facts About Tobacco.
10. Pure Air in the Home.

Send to-day for a Sample package, 10 cents.

REVIEW AND HERALD PUBLISHING ASSN.
Takoma Park - - - Washington, D. C.



Cover Design in Two Colors

25 Cents a Year, 10 Cents a Copy

A GOOD PROPOSITION FOR AGENTS

Send 10 cents for sample copy, terms, etc.
Send \$1.00 for 20, or \$2.00 for 50 copies.

The “Rome and Marriage” and “Catholic Prisons” Number

A FEW FEATURES

Double Frontispiece—Photograph of Holy Cross Church Baptism Certificate (Perth Amboy, N. J.). Showing Rome's Insult to American Marriage Laws. Difference Between Protestantism and Catholicism. A Girl's Escape From a “House of the Good Shepherd.” Rome and Marriage Laws. The Mediation of Christ. Reply to Attack by “Catholic Truth Society” Upon This Magazine. Cardinal O'Connell Above Governor Foss? Rome Capturing America. Is America to Become Catholic? Protestantism in the Sixteenth Century, and Other Timely Articles.

SPECIAL OFFER ON TEN, ONE YEAR

Ten copies, one year, to one address or to ten separate addresses, only \$1.50, or 15 cents each. Sender may include his own name as one of the ten. This number should be placed in the hands of every editor, attorney, clergyman, city and county official, and public-school teacher in your county. We can furnish the names and addresses.

Address Our Nearest Agency Listed on Another Page

PROTESTANT MAGAZINE
WASHINGTON, D. C.

When you write to our advertisers, please say, “I saw your ‘ad.’ in LIFE AND HEALTH.”



Flowers Bloom
all the Year
Round at Par-
adise Valley

THE name suggests the indescribable beauty and charm of this Southern California health resort. All conditions here aid in healing the sick and in building better health. Experienced travelers tell us that in all the world there is no place where the climate and natural advantages surpass those of Paradise Valley. The climate is equable — nearly the same winter and summer, never oppressively warm, always cool enough to be invigorating, but never chilly; no frosts. Every convenience of home, and the best of medical care and attention for the sick. Write for illustrated prospectus.

Paradise Valley Sanitarium

National City, California

Steps to Christ

By ELLEN G. WHITE



This is just the book for a gift to your friend or members of your Sabbath - school class. It contains fifteen chapters written from an intimate knowledge of the human soul's longing for greater nearness to the Saviour, by one who has long walked with the

Master and knows his ways. It is a book which should have a wide circulation for the marvelous good that it can do.

For the next birthday gift that you purchase, order a copy of "Steps to Christ." In cloth, handsomely illustrated, 144 pages, 60 cents, post-paid.

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

A GOOD COOK BOOK

For 25 Cents

There are enough valuable and practical suggestions of new and tasty dishes to be found in —

"A FRIEND IN THE KITCHEN"

By Mrs. Anna L. Colcord

to keep you busy for months testing them and gaining the benefit of the new ideas suggested. There are over 400 carefully tested recipes and hundreds of valuable suggestions. The book contains 20 departments.

The chapter "How to Can Fruit" is alone worth the price of the whole book.

Your name on the coupon below, accompanied by 25 cents, will bring the book to you, post-paid.



COUPON

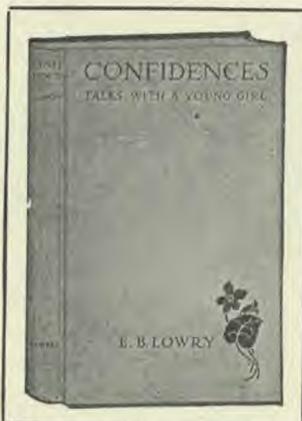
Review and Herald Pub. Assn.,
Washington, D. C.

For the 25 cents enclosed, send "A FRIEND IN THE KITCHEN," post-paid, to

.....

CONFIDENCES

TALKS WITH A YOUNG GIRL CONCERNING HERSELF



—BY—

Edith B. Lowry, M. D.

¶ A book explaining the origin and development of life in language intelligible to young girls. The author has very delicately and adequately treated this important subject. The future health and happiness of every girl demand that she receive when approaching adolescence an intelligent presentation of the vital life processes. This book will be an invaluable aid to parents and teachers in attaining that object. Medical, educational, and religious leaders and journals indorse this book.

¶ "'Confidences' is carefully written, and should be given to every young girl."—American Motherhood.

¶ "A sweet and wholesome book, and we are glad to recommend it."—Y. W. C. A. Monthly.

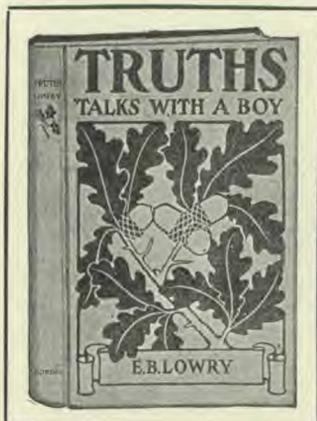
¶ Dr. D. H. Kress says: "I indorse every part of it. It is nicely written, and I am certain will accomplish considerable good."

NEATLY BOUND IN CLOTH; PRICE, 55 CENTS

REVIEW AND HERALD PUBLISHING ASSN.
Takoma Park, WASHINGTON, D. C.

TRUTHS

TALKS WITH A BOY CONCERNING HIMSELF



—BY—

E. B. Lowry, M. D.

¶ A book containing the simple truths of life development and sex which should be given to every boy approaching manhood. This book adequately and delicately presents these truths in language intelligible to boys from ten to fourteen years of age.

¶ Parents, teachers, and physicians will find it a needed and helpful book.

¶ "All boys should read this book."—Indianapolis Medical Journal.

¶ "The knowledge most essential to a growing boy is told with scientific accuracy, and in such a careful manner that it will not be found objectionable by thinking parents."—Life and Health.

Cloth Binding; Price, 55 Cents

REVIEW AND HERALD PUBLISHING ASSN.
Takoma Park, WASHINGTON, D. C.

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

Review & Herald Publishing Association
Takoma Park, Washington, D. C.



IDEAL FOLDING BATH TUB

Pat. Pending

For houses without tubs; Campers, Sportsmen, cold-water flats. Use in any room. Light. Lasts years. Write for low introductory offer. N. Y. L. BATH MFG. CO., 103 Chambers St., New York.

New England Sanitarium, Melrose (Boston), Mass.



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

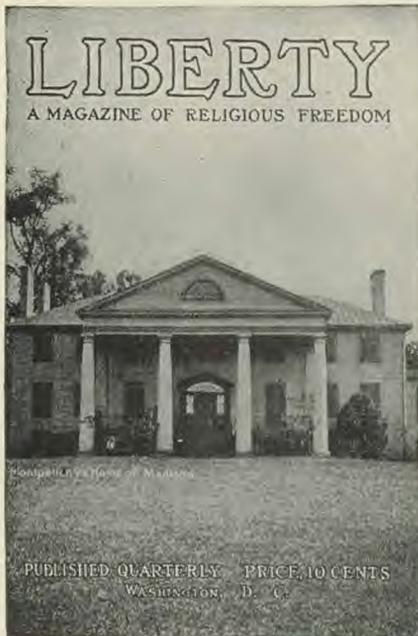
Is situated six miles from Boston, in the midst of a State park of 3,500 acres.

Is 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.

Special attention given to surgical cases.

Experienced physicians and well-trained nurses of both sexes are in charge.

Send for booklet.



Cover Design in Two Colors

25 Cents a Year, 10 Cents a Copy

A GOOD PROPOSITION FOR AGENTS

Send 10 cents for sample copy, terms, etc.
Send \$1.00 for 20, or \$2.00 for 50 copies.

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

YOU SHOULD READ

The "James Madison" Number

Join the International Religious Liberty Association by subscribing for this illustrated quarterly magazine for one year (25 cents), and signing its "Declaration of Principles."

A FEW FEATURES

- Cover-Picture of Madison's Home
- World's Christian Citizenship Congress
- A City Without a Sunday Law
- The Moral Condition in California
- California and the Sunday Law
- Religious Liberty in Portugal Under the Monarchy and the Republic
- Governor Foss Resents Cardinal's Arrogance
- Restrictions Upon the Religious Liberty of Public-School Teachers in the Philippines
- Religious Garb in United States Indian Schools
- Rome's Insult to America's Marriage Laws
- Vaticanism and the United States
- Why the Jew Hates "Christianity"
- Rome's Interference With the Rights of Citizens

Stands for the complete liberty of every man and woman in the world, whether Protestant, Catholic, Jew, or infidel.

SPECIAL ORDER ON TEN, ONE YEAR

Ten copies, one year, to one address or to ten separate addresses, only \$1.50, or 15 cents each. Sender may include his own name as one of the ten. This number should be placed in the hands of every editor, attorney, clergyman, city and county official, and public-school teacher in your county. We can furnish the names and addresses.

Address Our Nearest Agency Listed on Another Page

LIBERTY MAGAZINE
WASHINGTON, D. C.

"American State Papers"

**Bearing on Sunday Legislation. New, Revised,
and Enlarged Edition Ready**



COMPILATION of rare and valuable documents on religious legislation, which have appeared at various times during our colonial and national history, showing, by plainest principles of deduction, the attitude civil government should sustain toward such legislation. It is one of the most interesting books on the subject published, and invaluable to a correct solution of some of the most vital questions now confronting men in both political and religious life. It presents, in their own words, the ideas of the founders of the American government upon the great question of the proper relation of church and state. The book is divided into eight parts, besides an appendix, as follows:—

PART I deals with the Colonial period. In this are given numerous examples of the Sunday laws of all the early American colonies; a sketch of Roger Williams; and the claims of Rhode Island to its being the earliest civil government founded upon the principle first enunciated by Jesus Christ—complete separation of church and state.

PARTS II AND III contain, in documentary form, a history of the development of this principle during the Federation and National periods. In these are found some of the most profound utterances to which American minds have given expression—veritable masterpieces of English and sound logic—bearing on the rights of conscience and the province and limits of civil authority; Patrick Henry's great speech; history of Liberty Bell; full text of the famous Sunday Mail Reports of 1829 and 1830; history of the National Reform Association; Sunday legislation in California; the Blair, Breckinridge, and other Sunday Rest bills; Sunday closing of expositions; memorials to Congress; and a list of all the religious measures introduced in Congress since 1888.

PART IV contains important Court Decisions relating to Sunday laws and religious instruction in the public schools, including the Supreme Court, "Christian nation" decision of 1892.

PART V is entitled "State Constitutions and Sunday Laws."

PART VI deals with the Operation of Sunday Laws in the United States, narrating about one hundred prosecutions under these laws.

PART VII is entitled "Sunday Laws Before the Bar of Reason;" and—

PART VIII presents, in brief, the History of Sunday Legislation from Constantine to the present time. In the appendix will be found the Declaration of Independence; the Constitution of the United States; terse arguments on precedent and the constitutionality of Sunday laws; Senator Heyburn's speech in the United States Senate, May 26, 1911, against the Johnston Sunday bill; and gems from noted men and well-known authors.

No Other Book Like It in the United States

No other contains so much matter upon this subject. It is virtually eight books in one. Every American should read it.

Cloth binding. Price, only - - - - - \$1.25

Review & Herald Pub. Assn., Washington, D. C.

WE WANT YOU!

YOU HAVE READ this and doubtless other numbers of LIFE AND HEALTH, and are, therefore, competent to judge of its value to the WELL and to the SICK.

IT HAS TOLD YOU, in simple language, (1) How to KEEP WELL, (2) How to GET well, (3) How to TREAT simple diseases AT HOME without drugs, and (4) How to sleep, cook, eat, and dress for health. Therefore we want you to

ACT AS OUR AGENT

in your community, and pass on to others the benefits of this magazine. Incidentally, you will find the handling of this National Health Magazine to be

EASY AND PROFITABLE WORK

the year round. You will be welcomed by all classes, and will be engaged in truly philanthropic work of the highest order.

FOR OLD AND YOUNG ALIKE

One lady agent in Nebraska sold 1,000 copies in four days, her highest record for one day being 370 copies. Profit, one day, \$22.20.

A lady 73 years of age averaged 1,000 copies a month all last summer, her profits being equal to a salary of \$60 per month.

One young lady sold 7,550 copies in six months, an average of 1,258 per month, and a salary of \$75 a month for six successive months.

A little girl eleven years of age, working one hour and a half in an office building, reports 92 copies sold,—\$3.70 profit per hour.

MONTHLY PROFIT OF 150% ON INVESTMENT

On orders of 50 or more copies at one time, agents make a monthly profit of 150 per cent, or 1,800 per cent per year, on their investment. Figure it out for yourself from the following table:—

Send \$1.00 for 20	- To get money back, sell 10	- Profit on 20, \$ 1.00
Send \$2.00 for 50	- To get money back, sell 20	- Profit on 50, \$ 3.00
Send \$4.00 for 100	- To get money back, sell 40	- Profit on 100, \$ 6.00
Send \$6.00 for 150	- To get money back, sell 60	- Profit on 150, \$ 9.00
Send \$8.00 for 200	- To get money back, sell 80	- Profit on 200, \$12.00

PRICES

Yearly subscription	- - - -	\$1.00	Five copies, one year, to one address or more	\$3.00
Six months	- - - -	.50	Single copy	.10
Three years	- - - -	2.00	Five or more copies, mailed by publishers to	
Five years	- - - -	3.00	five addresses or one address, post-paid, each	.05

WHOLESALE PRICES

5 to 40 copies, post-paid, each	- - - -	\$.05
50 or more copies, post-paid, each	- - - -	.04

EARN YOUR OWN SUBSCRIPTION

Send us TWO YEARLY SUBSCRIPTIONS, accompanied by \$2, and we will enter your own name upon our mailing list for one year FREE OF CHARGE.

Apply for agency, territory, and full particulars to our Tract Society or General Agency nearest you (see list of agencies on another page), or to

LIFE AND HEALTH

Takoma Park - - - - - Washington, D. C.

MY SUBSCRIPTION FREE

Life and Health,
Takoma Park,
Washington, D. C.

GENTLEMEN:—

I desire to take advantage of your special offer to send me your magazine free for one year. Enclosed you will find \$2, for which please enter my name and two others upon your mailing list for one year, as follows:—

First Name

Address.....

Second Name.....

Address.....

My Name.....

Address.....

APPLICATION FOR AGENCY

GENTLEMEN:—

I hereby apply for agency for your magazine, LIFE AND HEALTH. I desire to solicit subscriptions, and also to sell a supply regularly each month. Kindly send me your terms to agents, etc. Find enclosed recommendation from..... vouching for my character and ability properly to represent your magazine.

Name.....

Street No. or Box.....

Town.....

Name and address of my friend who also desires agency.....

AGENT'S ORDER BLANK

GENTLEMEN:—

Enclosed you will find \$..... for..... copies of LIFE AND HEALTH for the month of....., 191....., which I understand you will send post-paid to me to the following address or addresses:—

.....copies to me at.....

.....copies to me at.....

.....copies to me at.....

.....copies to me at.....

Name of Agent.....

Address until..... will be.....

CONSUMPTION



DR. DAVIS

is curable and preventable. A great majority of cases can be cured, without drugs, and largely through the patient's own efforts.

This book tells how:

CONSUMPTION Its Prevention and Cure Without Medicine

With chapters on Sanitation, and Prevention of other Diseases, by CHARLES H. S. DAVIS, M. D., member of the New Haven County Medical Society, Connecticut State Medical Society, American Health League, etc.

Not a theoretical, but a thoroughly practical book, based on actual experience. Treats upon the open-air life, rational diet, and other important subjects. Contains 216 pages. In cloth, post-paid, \$1.

Review & Herald Pub. Assn., Washington, D. C.

Decoration Day



The May Number

Readers of this journal will find several helpful articles in the health department, "The Wonders of the Liver," "The Price of Health," "Correcting Heredity," and "Nose-bleed in Adults."

"Memorial Day Reflections." A time for profitable reflection. Some worthy thoughts for all.

"The Men and Religion Forward Movement." A clear and forceful picture of this great work.

"Evolution, Creation, and the Sabbath." A rather novel presentation from a Bible-nature standpoint. You should read it.

"The Advance of Socialism." Will its designs be realized? The authority of the Scriptures. Important.

"The Fifth Universal Empire, the Kingdom of Eternity." The kingdom, its territory, its subjects, its character, and its time, are all outlined.

"The Second Coming of Jesus." Presenting another special phase. Ably written and convincing.

"The Advance of Rome," by Frank S. Weston. Its place as a sign of our times.

"Man Created a Living Soul." Is man immortal? Where does the soul go at death? and similar questions answered. The first of this series. You should read them all.

"Glimpses of China," by F. E. Stafford.

"The Kingdom of Christ" — a Bible reading.

Timely current topics, as usual.

Well illustrated.

Ten cents in coin or stamps for copy.

Signs of the Times, Mountain View, Cal.

Stop Catching Cold!

A cold is the most common of diseases, yet how few people know just what it is, how it starts, and just how to cure it. Colds are dangerous. They destroy vitality, and prepare the way for worse conditions — sometimes for fatal diseases. The editor of LIFE AND HEALTH, Dr. G. H. Heald, has prepared a little book telling all about



The Author

"COLDS," Their Cause, Prevention, and Cure

Only 62 pages of large print to read, but it tells the whole story lucidly and completely. What it contains is worth a fortune to those that have the "habit of catching cold." The book is a Life Preserver, and should be in every home. Neatly bound in white leatherette. **Only 25 Cents, Post-paid.**

Review & Herald Publishing Assn.
Takoma Park, Washington, D. C.



Part of Main Building



A View on the Lawn



The Dining-Room



A Group of Nurses



Some of the Tents

Where Health Is Contagious

Saint Helena

Thirty years ago the St. Helena Sanitarium was founded on the sunny slope of one of the foot-hills of the Howell Mountain. For thirty years, nestled in the sheltered nook selected by its founders, it has grown and prospered. Today it is the best-known sanitarium on the Pacific Coast.

Located 750 feet above sea-level, with an unsurpassed view over the beautiful Napa Valley, 500 feet below, surrounded by a wealth of Californian verdure and sparkling crystal springs, the St. Helena Sanitarium has been favored by a fortunate combination of conditions conducive to health-building.

Sick People Get Well at St. Helena

They go away and tell others of the delightful climate, the beautiful scenery, the pleasant, homelike accommodations and appetite-creating cuisine, and — what is not of least importance — the excellent medical attention and health training which each patient receives. This has been for thirty years our best advertising — satisfied patrons.

We can not tell you very much about the sanitarium in this small space. Let us send you our illustrated booklet. This will give you a better idea of the place, its surroundings, and its advantages.

Ambulance will meet all trains when required.

St. Helena-California Sanitarium

Sanitarium Napa County California

THIS COUPON, filled out, detached, and mailed to us, will bring you a free illustrated booklet.

MAIL THIS COUPON L & H

St. Helena Sanitarium,
Sanitarium, Cal.

Please send your free illustrated booklet to—

Name _____

Address _____



COME TO GLENDALE

We invite the restless, sick, weary, discouraged, those longing better to understand the pleasures and possibilities of health, those in search of a climate near to perfection, where Nature's voice may be heard, her beauty and quiet enjoyed, her efforts seconded by a simple life and correct application of her remedies—sunshine, fresh air in her great out-of-doors, plenty of healthful, nourishing food, pure water scientifically applied, regulated exercise, electricity in its various forms, massage—with careful medical supervision, to come to Glendale, Southern California's true Paradise, near to Los Angeles, and yet peaceful, quiet, and comparatively secluded.

Ask for booklet E in natural colors, and let your friends see it.

GLENDALE SANITARIUM :- :- :- :- :- GLENDALE, CALIFORNIA

Washington (D. C.) Sanitarium



An attractive health resort, seven miles from the capitol. Diseases treated: digestive disorders, rheumatic and gouty conditions, nervous and circulatory disturbances. The methods employed are the most modern and approved. The appliances are up to date. Baths, electricity, and diet are largely depended upon. In the surgical line we are well prepared, having a good operating-room and equipment. Competent physicians and nurses are employed to care for cases.

Send for Prospectus to the

WASHINGTON (D. C.) SANITARIUM

Phone Takoma 127

Takoma Park, WASHINGTON, D. C.

Circumstances
Alter
Faces



LOOK FOR THIS

W. K. Kellogg