

# GOOD HEALTH

Edited by J. H. KELLOGG, M. D.



A G Daniels  
Tacoma Park Sta D Ex

DECEMBER

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# Good Health for 1907

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WITH the whole world more intent to-day upon the problems of hygienic reform and the subject of correct living than at any previous time in years, it is scarcely necessary to state that the mission of GOOD HEALTH for the coming year is one of unusual importance. Born in the early days of the health reform movement forty-one years ago; buffeting the storms of ridicule and abuse which characterized its early stages; preaching an unpopular health doctrine and presenting what to many was an unwelcome message, GOOD HEALTH has ever been the standard bearer of the movement it has represented.

The past year has seen many changes, no little progress. Frauds have been exposed, popular fallacies have been overturned, prejudices have been uprooted. The world is waking up to a sense of its physical danger. It is on the alert for new ideas, facts which when critically weighed and analyzed will be found of genuine worth.

**Our Plans** GOOD HEALTH has always been a magazine with a mission. To-day its mission is broader and of a wider scope than ever before. Thus it is that in outlining the work we have planned we can predict unprecedented value in the pages of GOOD HEALTH for 1907.

Each month's issue will constitute a record of what is new in discovery and experience in matters pertaining to health. Each week brings to the editorial table news of the scientific progress in every country of the globe. In addition a number of interesting special articles and series have been arranged for. Not only will most of the old favorites be ranked among our contributors, but new and talented writers will favor us from time to time with their views on sub-



J. H. Kellogg, M. D.  
Editor,



David Paulson, M. D.



Henry Ritter, M. D.

jects of interest to GOOD HEALTH readers. The pages of each number will be enlivened with appropriate illustrations. In addition to the editorials and the general and special articles from contributors, we will present as heretofore, a résumé of such of the material appearing in the current literature as is of deepest interest to our readers. Thus the devotee to right living has access not only to the pages of GOOD HEALTH, but to the best things extant in the health and medical literature of the world.

**Our 1907  
Contributors**

If we are to judge by the expressions that come to us, the recent leading editorials by the editor, Dr. J. H. Kellogg, dealing with current topics in a concise and emphatic manner, have been especially popular with GOOD HEALTH readers. These will be continued and will constitute one of the prominent features of the magazine for the coming year.

Dr. David Paulson, superintendent of the Hinsdale Sanitarium and editor of *The Life Boat*, whose articles last year were so widely copied, will again be a contributor. Mrs. Emma Winner Rogers, whose study of settlement work and social reform questions have rendered her eminently able to discuss the problems connected with these subjects, has been requested to furnish a series of articles which will be both practical and entertaining. Dr. Kate Lindsay will contribute a number of articles on various phases of the subject of home nursing in acute diseases.

**Physical Culture  
Studies**

Dr. Henry Ritter will provide a series on studies of germ life in the home with illustrations, and Dr. Benton N. Colver and Miss M. Mabel Arnold will contribute a number of illustrated physical culture studies. Miss Julia Ellen Rogers, whose tree studies were so much enjoyed the past year, and Mrs. Belle M. Perry, who contributed the articles on American birds for the Walking Club pages, will furnish occasional contributions.

Mrs. E. E. Kellogg will continue to write regularly



Benton N. Colver, M. D.

for the magazine, especially on sanitation in the home, and child culture. Miss Lenna Frances Cooper will conduct lessons in healthful cookery for children in the Children's Department, which will be devoted this year to practical subjects, combining entertainment with instruction.

Other contributors for 1907 will be Dr. Mary Wood-Allen, editor of *American Motherhood*, Dr. W. S. Sadler, Eugenia Frances Bolton, Mrs. Estelle F. Ritter, Dr. Carolyn Geisel, Dr. A. J. Read, G. C. Tenney, Dr. Mabel Howe Otis, Dr. Frank J. Otis, A. T. Jones, and others.

**The Special Numbers**

There will be six special numbers during 1907, one every other month as follows:—

FEBRUARY—*A Physical Culture Number* This number, while containing the usual store of good things in general, will be devoted especially to physical culture topics, with various illustrated articles by authorities and instructors.

APRIL—*A Housekeepers' Number*. The April number will contain practical hints for the housewife, illustrated, the articles being prepared by recognized writers of ability on such subjects. The model home will be discussed and scores of suggestions to make the housekeeper's task lighter will be presented.

JUNE—*An Outdoor Life Number*. Last year the June number was devoted to the same topic, and there was never a more popular number issued. There are plenty of new subjects; innumerable new fields have never been touched so we are confident that the number for 1907 will even surpass that of the previous year.

AUGUST—*The Mothers' Number*. It would scarcely be permissible for a magazine fulfilling the mission of GOOD HEALTH to fail to include a mothers' number among its specials for the year. What subject in the entire range of good health subjects could



Mrs. Estelle F. Ritter,



Miss Lenna Frances Cooper



Geo. C. Tenney

be more important than the health of the child? This year we have seen fit to make the August number the Mothers' GOOD HEALTH. There were special reasons for doing so, chief of which was the fact that at no season, perhaps, is the perplexity of the mother so great as early in August, at the beginning of the very hot season. We believe that the hints the mothers' number for 1907 will present will relieve a multitude of mothers of their anxiety and bridge many families safely over this troublous period.

SEPTEMBER—*A Temperance Number.* Health reform and temperance go hand in hand. One can not stand independent of the other. Each issue of GOOD HEALTH is in a sense a temperance number. But in GOOD HEALTH for September temperance in all things,—food, drink, dress, and habits in general—will be the main topic. This number is sure to be one of the most valuable of the year.

NOVEMBER—*A Vegetarian Number.* While vegetarianism is only a single phase of the whole subject of right living, it is an important phase. As multitudes are coming to know there is much new and important to be said on this subject which may well be summarized in a special number. Why have those powerful creatures, the mastodon, the pterodactyl, the ichyosaurus, and their kindred, disappeared from the earth? Science answers.

The GOOD HEALTH Question Box will be continued as heretofore.

**The  
Question Box**

This division has always been popular, so much so, indeed, that it has been with difficulty that we have answered all of the questions presented. This department in 1907 will be even more effective and interesting than in the past.

The year 1907 is bound to be one of progress, and we earnestly urge our readers to be sure that they do not miss a single number and to assist us in spreading the cause of health reform as much as possible by interesting others in the magazine.



Kate Lindsay, M. D.

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CALIFORNIA (St. Helena) SANITARIUM, Dr. H. F. Rand,  
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**See Announcement page 3, this section**

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W. A. George, M. D., Superintendent.

PORTLAND SANITARIUM, West Ave., Mt. Tabor, Ore.  
W. R. Simmons, M. D., Superintendent.

NEW ENGLAND SANITARIUM, Melrose, Mass.  
C. C. Nicola, M. D., Superintendent.

**See Announcement page 8, this section**

CHICAGO SANITARIUM, 28 33d Place, Chicago, Ill.  
Frank J. Otis, M. D., Superintendent.

TRI-CITY SANITARIUM, 1213 15th St., Moline, Ill.  
S. P. S. Edwards, M. D., Superintendent.

**See Announcement page 7, this section**

PARADISE VALLEY SANITARIUM, City Office and Treat-  
ment Rooms, 1117 Fourth St., San Diego, Cal.  
Sanitarium, National City, Cal.

**See Announcement page 5, this section**

LOMA LINDA SANITARIUM, Loma Linda, Cal.  
J. A. Burden, Manager.

**See Announcement page 5, this section**

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PROSPECT SANITARIUM, 1157-1161 Prospect St., Cleveland,  
Ohio.  
F. A. Stahl, Superintendent.

TACOMA SANITARIUM, 426 S. C St., Tacoma, Wash.  
T. J. Allen, M. D., Superintendent.

COLORADO SPRINGS SANITARIUM, 126 N. Cascade Ave.  
Colorado Springs, Colo.  
T. J. Evans, M. D., Superintendent.

ADIRONDACK SANITARIUM, (Formerly Upper Hudson  
Sanitarium), Lake George, N. Y.  
E. F. Otis, M. D., Superintendent.

HINSDALE SANITARIUM, Hinsdale, Ill.  
David Paulson, M. D., Superintendent.

**See Announcement page 3, this section**

MIDDLETOWN SANITARIUM, 46 to 48 E. Main St., Mid-  
dletown, N. Y.  
B. B. Kline, M. D., Superintendent.

TREATMENT ROOMS, 565 Main St., Springfield, Mass.  
Chas. S. Quail, Manager.

SEATTLE SANITARIUM, 1313 3d Ave., Seattle, Wash.  
Alfred Shryock, M. D., Superintendent.

PEORIA SANITARIUM, 203 3d Ave., Peoria, Ill.  
J. E. Heald, M. D., Superintendent.

GLENDALE SANITARIUM, Glendale, Cal.  
W. Ray Simpson, Manager.

**See Announcement page 5, this section**

PENNSYLVANIA SANITARIUM, 1929 Girard Ave., Phila-  
delphia, Pa.  
H. B. Knapp, M. D., Superintendent.

**See Announcement page 8, this section**

NORTHWESTERN SANITARIUM, Port Townsend, Wash-  
ington.  
W. R. Simmons, M. D., Superintendent.

TREATMENT ROOMS, 58 Madison Ave., Detroit, Mich.  
Dr. Jean A. Vernier, Manager.

## FOREIGN

SURREY HILLS HYDROPATHIC INSTITUTE, Caterham,  
Surrey, England.

A. B. Olsen, B. S., M. D., M. R. C. S., Superintendent.

LEICESTER SANITARIUM, 80 Regent St., Leicester, Eng-  
land.

F. C. Richards, M. D., M. R. C. S., Superintendent.

CALCUTTA SANITARIUM, 50 Park St., Calcutta, India.  
R. S. Ingersoll, M. D., Superintendent.

PLUMSTEAD SANITARIUM, Cape Town, South Africa.  
Geo. Thomason, M. D., L. R. C. S., Superintendent.

CHRISTCHURCH SANITARIUM, Papanui, Christchurch  
New Zealand.

KOBE SANITARIUM, 42 Yamamoto-dori, Nichome, Kobe,  
Japan.

S. A. Lockwood, M. D., Superintendent.

GUADALAJARA SANITARIUM, Apartado 138, Guadalajara,  
State of Jalisco, Mexico.

SANITARIUM DU LEMAN Gland (Vaud) Suisse.  
P. A. De Forest, M. D., Superintendent.

SKODSBORG SANITARIUM, Skodsborg, Denmark.  
J. Carl Ottosen, A. M., M. D., Superintendent.

SYDNEY SANITARIUM, Wahroonga, N. S. W., Australia.  
D. H. Kress, M. D., Superintendent.

FRIEDENSAU SANITARIUM, Post Grabow, Bez. Magde-  
burg, Germany.

A. J. Hoenes, M. D., Superintendent.

KIMBERLEY BATHS, 32 Old Main St., Kimberley, South  
Africa.

J. V. Wilson, Mgr.

## Health Food Restaurants

HYGIENE COMPANY, 1209 G. St., N. W., Washington, D. C.

HYGEIA DINING ROOMS, 5759 Drexel Ave., Chicago, Ill.

PURE FOOD CAFE, 403 E. 11th St., Kansas City, Mo.

VEGETARIAN DINING ROOM, 436 N. 12th St., Lincoln, Nebr.

VEGETARIAN CAFE, 19 East Bijou St., Colorado Springs,  
Colo.

VEGETARIAN CAFE, 814 Pine St., St. Louis, Mo.

VEGETARIAN CAFE, 259 South Hill St., Los Angeles, Cal.

PORTLAND SANITARIUM ROOMS, Mt. Tabor, Oregon.

RESTAURANT, 2129 Farnum St., Omaha, Nebr.

VEGETARIAN CAFE, 214 Union St., Seattle, Wash.

VEGETARIAN CAFE, S. 170 Howard St., Spokane, Wash.

CROFTON'S PURE FOOD AND VEGETARIAN RESTAU-  
RANT, 193 Devonshire St., Boston, Mass.

THE LAUREL, 11 W. 18th St., New York City.

HYGEIA CAFE, 203 3d Ave., Peoria, Ill.

VEGETARIAN CAFE, 105 6th St., Portland, Oregon.

VEGETARIAN CAFE, 45 Hunter St., Sydney, N. S. W.

## Health Food Stores

PURE FOOD STORE, 2129 Farnum St., Omaha, Nebr.

BATTLE CREEK SANITARIUM HEALTH FOOD DEPOT,  
Chas. S. Quail, 565 Main St., Springfield, Mass.

HEALTH FOOD STORE, J. H. Whitmore, 118 Miami Ave.,  
Detroit, Mich.

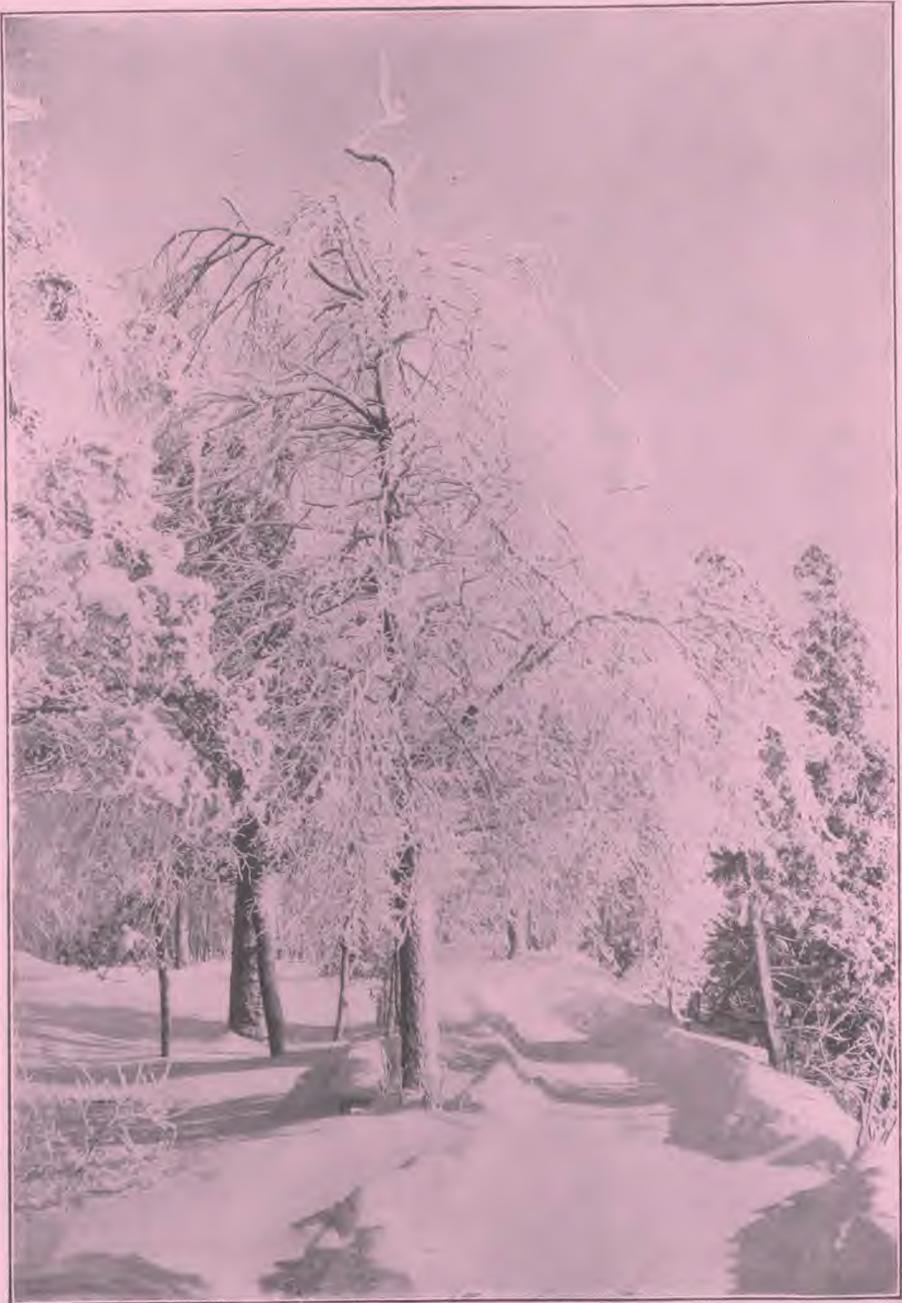
BOSTON HEALTH FOOD STORE, W. F. Childs, Room  
316, 100 Boylston St., Boston, Mass.

N. E. SANITARIUM FOOD CO., 23 Wyoming Ave., D. M.  
Hull, Mgr., Melrose, Mass.

HEALTH FOOD STORE, 156 Monroe Ave., Rochester, N. Y.

NEBRASKA SANITARIUM FOOD CO., College View, Nebr.

BATTLE CREEK SANITARIUM HEALTH FOOD STORE,  
555 W. 63rd St., Chicago. S. Coombs, Proprietor



A Winter Scene

ST. HELENA,  
CALIFORNIA

# SANITARIUM



The largest and best equipped institution west of the Rocky Mountains, affiliated with and employing the Battle Creek Sanitarium methods of treatment. Beautiful scenery. Delightful winter climate.

A postal will bring large illustrated booklet.



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The course in gymnastics embraces not only ordinary calisthenics, but also the Swedish system of gymnastics, medical gymnastics, manual Swedish movements, swimming, and anthropometry.

The school of cookery affords great advantages in scientific cookery, and also instruction in dietetics for both the sick and the well, the arranging of bills of fare, the construction of dietaries, and all that pertains to a scientific knowledge of the composition and uses of foods.

The course for men covers two years of instruction and training.

Graduates receive diplomas which entitle them to registration as trained nurses. Students are not paid a salary during the course of study, but are furnished books, uniforms, board and lodging. Students are required to work eight hours a day, and are expected to conform to the principles and customs of the institution at all times. Students may work extra hours for pay. The money thus earned may be ample for all ordinary requirements during the course.

Applicants received whenever vacancies. The next class will be organized the first of October, 1906.

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Battle Creek, Michigan

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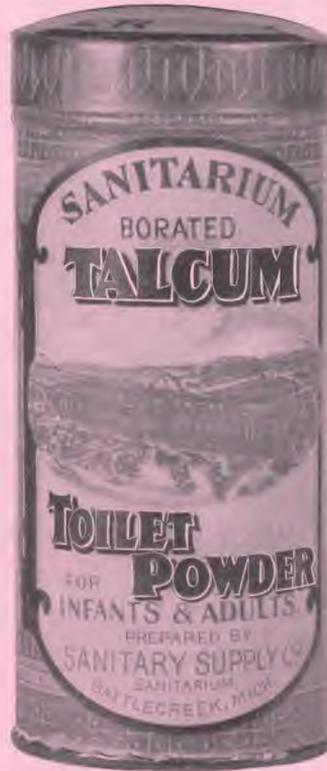
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CHRISTMAS MORNING

# GOOD HEALTH

*A Journal of Hygiene*

VOL. XLI

DECEMBER, 1906

No. 12

The record of the earth's crust shows that hundreds of races and species of animals and plants which have once lived have disappeared leaving behind them only the fossil remains of what were once towering forests, great herds of gigantic beasts, or incoming millions of smaller forms, because the conditions of life upon the planet so changed as to be incompatible with their physical well-being. In other words, their environment became unnatural, and hence unfavorable, unfriendly, destructive, fatal.

## The Human Race Is Dying

Peary and other explorers have found abundant remains in the North Polar regions of rich tropical flora and fauna, and Otto has found the same in the Antarctic region. The change from a genial tropical climate to perpetual snow and ice has killed off the splendid creatures which formerly peopled this region, and has reduced to pigmies the great penguins who, according to the recent discoveries of Nordenskjold once marched tall as men in solemn procession along the sun-kissed shores of this now frozen and deserted land. Pigmy musk oxen and the penguins seem to be the sole survivors of the old days when palms and ferns and orchids flourished at the poles, while monkeys and parrots chattered in the cocoanut trees, and elephants and mammoths grazed on the hillsides.

The human race appears to be undergoing the same process of degenerative change which has exterminated these thousands of living species. By his intelligence man has been able to escape destruction through those great cataclysms of nature to which other species have succumbed. By the invention of clothing and houses, and the discovery of fire, he has kept himself alive in spite of the snow and ice and blizzards of the glacial period, although naturally a creature of the tropics, and an open-air dweller.

But the life of the mole and the cave bear, shut away from an abundance of oxygen and sunshine, does not agree with him. Life in the shadow has bleached his skin, and through this has damaged his kidneys and his liver. He has nearly lost his sense of smell,—once an invaluable guide in the selection of his food. Most of his divinely implanted instincts whereby he was able to avoid and defeat the enemies of life and health have been lost or so perverted as to be no longer of service, or even a menace to his welfare.

**In other words, man has lost his horse sense. He finds himself thus in a wilderness of unnatural conditions, an inharmonious environment, like a mariner lost in mid-ocean without chart or compass.**

With instinct dead, man has used his intelligence in some part wisely in his

effort to adjust himself to the new conditions of existence which confront him; but, unfortunately he has also unwisely created for himself artificial conditions and relations of a most dangerous and destructive character. Naturally an eater of nuts, and fruits, and seeds—"And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat" (Gen. 1:29),—he has added to his dietary the bills of fare of the whole animate creation. He eats all eatables, and eaters of eatables as well.

More than this, he drinks tea, coffee, cocoa, maté, and alcohol, when the only proper drinks are water and fruit juices. He smokes, chews, snuffs, and "dips" tobacco. He has added to all these banes the patent medicine habit, and dissipates in a thousand ways which he fully knows are not good for him. He lives a most unwholesome life. Man cultivates disease and then pays doctors for curing him by means which often create new maladies.

As the result, we see a race of pigmy men, hastening like the sad-faced pigmy penguins, toward race extinction. Here is something of the record:—

**Insanity has increased 300 per cent in fifty years**  
**Idiocy has increased 300 " " " " "**  
**Epilepsy has increased 300 " " " " "**  
**Chronic inebriety has increased between 200 and 300 per cent in fifty years**  
**Bright's disease increasing 527 per cent in fifty years**  
**Diabetes increasing 1459 " " " " "**  
**Cancer increasing 305 " " " " "**  
**Crimes of all sorts increasing**  
**10,000 murders a year in the United States**  
**Divorce increasing**  
**Prostitution increasing**  
**All drug habits increasing**

The race is sinking. There can be no doubt of it. The city population is sinking faster than the country, but the country is being deserted for the town.

The race is sick. Race degeneracy is the disease. Unnatural habits and appetites and unwholesome indulgences are the cause. Man has lost his way on the great highway of existence, and is wandering in by and forbidden ways. He has forsaken the "old paths" and is traveling down the Jericho road. Thieves beset him on every side. He is robbed and beaten at every turn. Good Samaritans are needed to bind up the wounds and to restore the "paths to dwell in."

The only salvation for the race is to be found in a return to nature, to simplicity and wholesomeness. It is not necessary to return to savagery. Savagery is not man's natural state, but the savage is nearer to nature by far than is the degenerate aristocrat who smokes cigarettes and dines on dead bodies. "The simple life" in its true and broadest meaning is the only way and the sure way of escape from the appalling catastrophe which to-day threatens the race in every civilized country of the globe.

*J. H. Kellogg*

# HYDROTHERAPY AT ITS BEGINNING

## Early Experiences and First Impressions of a Visitor to Priessnitz's "Silesian Water Cure"



Graefenberg

THE whole landscape was flooded with sunshine when we started out to climb the long hill, half-way up which shone the whitewashed walls of the great Silesian Water-Cure. It was, nevertheless, the weather of a belated spring,—so cool that we covered ourselves against its breath with our winter overcoats, although stoutly underclothed with flannel. Particular notice is called to this fact, as it is of considerable interest when taken in connection with the butterfly costume in which we fluttered about a few days afterward.

Through streets of solid stone and plaster houses, we passed into a narrow

sweep of meadows, and crossed a likely brook of clear water, variously useful in washing invalids and dirty clothes. In the shop-windows were displayed huge brogans, stout canes shod with iron, drinking horns, and pretty cups of Bohemian glass, all significant of the teetotal peripatetic society into whose haunts we were about to venture. Half-way up the hill we came to a little fountain, where a solitary individual was swallowing water with an air as if he thought very little of the liquid, but supposed it was good for him. Some hundred yards farther on was another fountain, dripping from the base of an

obelisk of gray stone, on which shone the inscription, "Au Genie de L'eau Froide."

From here onward, we met numbers of people of a cheerfully crazed appearance, wandering confusedly hither and thither, like ants when you scatter their nests. All were shabbily attired, some in linen, some bareheaded with clipped hair, others with towels around their temples, their pockets bulky with glass cups or their shoulders harnessed with drinking-horns. Most of them carried thick canes, and raced up the eminences like Christians climbing the hill difficulty. Ladies, too, were among the number, shoeless and stockingless, wading through the dewy grass, their feet burning with what Dr. Johnson would call Auroral frigidity and herbiferous friction. They all kept in constant motion and seemed never to speak to one another, reminding me of those bewildered knights in Ariosto's enchanted palace, who wandered perpetually up and down, hearing the voices of dear friends, but seeing no one. The center of movement for this distracted crowd was an irregular square, stony and verdureless, on one side of which rose

two enormous, ghastly buildings, with multitudinous windows, constituting the establishment proper; while opposite to these, at various distances, glared low, whitewashed cottages, also used for storage and cleansing of a vast invalidism. From a concavity in the masonry of the outer stairway to the principal edifice gushed a hearty little jet of water, abundantly supplying the horns and cups which were continually presented to its humid mouth.

Priessnitz was absent for the day at Freiwaldau; but a bathman led us to the superintendent of the establishment. Bare, creaking stairs and floors brought us to a prodigious desert of an eating-room, where the superintendent, a short, flabby man, with a baldish crown, an apple-dumpling face, and white eyes, came to receive us. I have forgotten the exact price which he asked for board and lodging, but it was something extremely insignificant—not more, certainly, than three dollars a week. It was so much like gratuitous hospitality that we at once sent a porter to the inn for our trunks, and followed the superintendent to one of the cottages. We found it a very rustic one, built of raw

clapboards, and approached through a puddle, the overrunning of a neighboring water-trough. It had begun life, indeed, as a stable; but we objected very little to that, as the scent of quadruped life had been totally exorcised from its breezy chambers. The floors and partitions were of the consistency of paste-board, and we saw at once



The Cold Water Cure

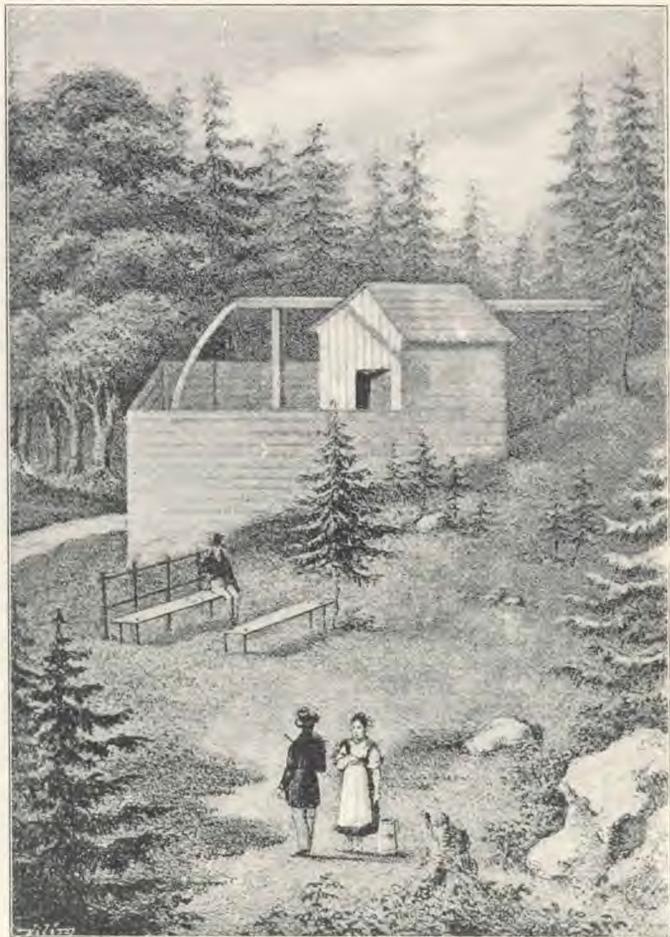
if we did not wish to disturb our neighbors, we must live in a whisper. Everything was of unpainted pine—the walls, the narrow bedsteads, the chairs, and the washstands.

There was only three chambers for four of us, but one of them was double-bedded and double-chaired. We tossed up kreutzers for the single rooms. While the trunks were coming, we began a dance of celebration of our advent, thinking that perhaps we should never feel like it again. Presently we heard a yell of fury from below, accompanied by a double knock against the floor under our feet, from what seemed to be a pair of boots. We passed our Shaker Exercises, questioning what abodes of torture might exist beneath us, and what lost mortal or demon might inhabit them. We afterward learned that a neuralgic Russian lived on the first floor, and feeling annoyed by our clamor, had sought to mend matters by howling and throwing his shoe-leather about.

Presently we all gathered in the passage to catechise a young Englishman, who was also (in)stalled in our ex-stable. Having been three months under treatment, he could give us some idea of what we were to do and to suffer; but in the middle of his talk, he was imperiously summoned away by a moist, cool

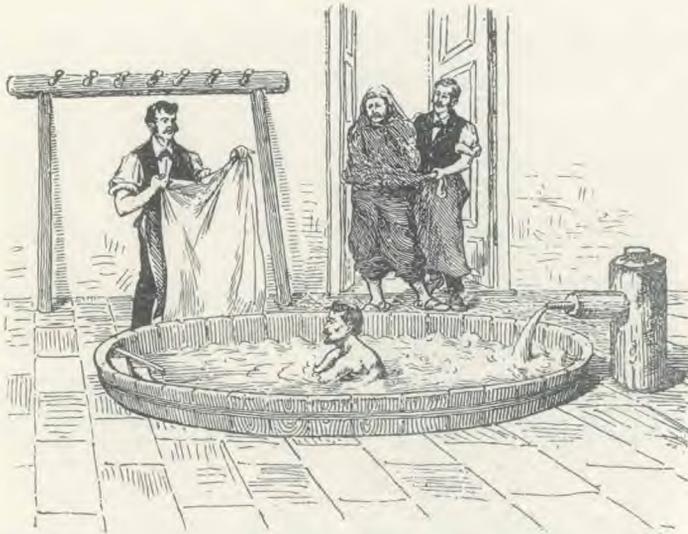
executioner, armed with a wet sheet. In a moment more we heard, with mingled mirth and horror, the rasping splash of the dripping linen, as it fell upon the body; and a quarter of an hour afterward we saw him hurry out with wet locks, and make off at a shivering canter for the mountain paths.

Early in the morning, Priessnitz himself came into our room, followed by Franz, the bathman. I saw before me a medium-sized person, with weather-beaten features; a complexion which would have been fair but for the deep sunburn; eyes of blue inclining to gray; thin, light brown hair touched with silver; and an expression reserved, com-



A Rude Bath House in the Mountains

posed, grave, and earnest. He sometimes smiled very pleasantly, but he spoke little, and wore in general an air of simple, quiet dignity. Altogether, I felt as if I were in the presence of a kindly tempered man of superior mind, accustomed to command, and habitually confident of his own powers. I afterward observed that he kept the same impassive self-possession in the presence of every one, were it even the highest noble of the Austrian Empire.



The Plunge Bath

He listened to a brief history of my malady, seeming very indifferent to its past symptoms, but examining attentively the color of my skin and the development of my muscles. He then ordered the wet sheet to be spread, and signed for me to stretch myself in it. As soon as I had measured my length on the dripping linen, Franz folded me up rapidly, and then packed me thickly in blankets and overcoats, as if I were a batch of dough set away to rise. My roommate followed my damp example, and our teeth were soon chattering in chilly sympathy. Having noted the in-

tensity of our ague, as if it were a means of judging what degree of vigor in the treatment we could bear, Priessnitz left us. My friend Neuville and I remained as fixed, and nearly as moist, as King Log in the pond, but in a state of anguish far beyond the capacities of that stolid potentate. We were so cold that we could not speak plainly, and shivering until our bedsteads caught the infection. Then a change came, a graduated, almost unconscious change to

warmth, and at the end of ten minutes it was hard to say whether we were uncomfortable or not. A few moments more brought a sensation of absolute physical pleasure, and I began to think that, after all, water was my element and it was a mistake that I was not furnished with tasty red fins like a perch.

Just at this pleasant stage of the experience when I would have been glad to continue it longer, Priessnitz came back and declared us ready for the plunge bath. Franz turned up the blanket so as to leave my feet and ankles free, shod me with a pair of straw slippers, set me unsteadily upright, like a staggering ninepin, took a firm hold of my envelopments behind, and started me on my pilgrimage. I set off at the rate of a furlong an hour, which was the top of my possible speed under the circumstances. Forming a little procession, with Priessnitz ahead as officiating priest, next myself as the walking

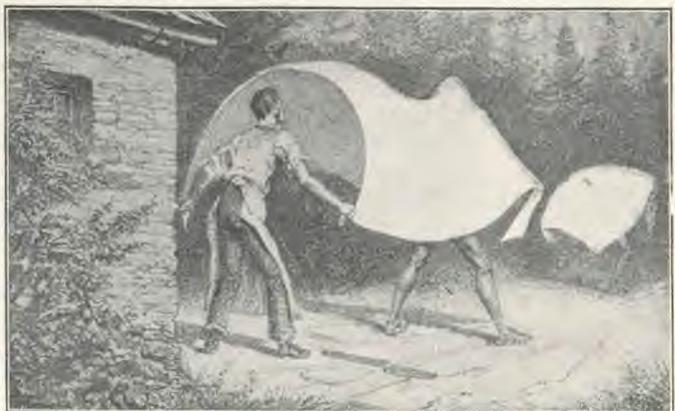
corpse, and then Franz as a sexton, we moved solemnly on, until we reached a stairway leading into a most gloomy and low-spirited cellar. Dark, rude, dirty flagstones were visible at the bottom; while from an unseen corner bubbled the voice of a runlet of water. The stair was so steep and the steps so narrow that it seemed impossible to descend without pitching forward; and confining myself desperately to the attraction of gravitation, I cautiously raised my left foot, making a pivot of the right one, wheeled half a diameter, settled carefully down six inches, wheeled back again, to a front face, brought my decretal foot down, and found myself on the first step. Ten repetitions of this delicate and complicated maneuver carried me to the floor of the cellar.

Franz now guided me into a side room, and halted me alongside of an oblong cistern, brimming with water, supplied by a brooklet which fell into it with a perpetual chilly gurgle. In a moment his practised fingers had peeled me like an orange, only quicker than any orange was ever stripped of its envelope; and the steam curled up from my body as from an ear of boiled corn. Priessnitz pointed to the cistern like an angel of destiny signing to my tomb, and I bolted into it in a hurry, as wise people always bolt out of the fryingpan into the fire, when there is no help for it.

In a moment my whole surface was so perfectly iced that it felt hard, smooth, and glossy, like a skin of marble. I got out on the first symptom of permission, when

Franz set about rubbing me down, with a new linen sheet still possessed of all its native asperity. If I had been a mammoth, or an ichthyosaurus, with a cuticle a foot thick, he could not have put more emphasis into his efforts to bring my blood back to a vigorous circulation. Priessnitz joined in as if he enjoyed the exercise, and honored me with a searching attrition from his knowing fingers. Then, after examining me to see if I grew healthfully rosy under the excitement, he signed me to throw a dry sheet over my shoulders and give myself an air bath before the window, into which a fresh morning breeze was pouring. Holding tight with both hands to the corners of the sheet, I flapped my linen wings as if I were some gigantic bat or butterfly, about to take flight through the orifice, and soar away over the meadows.

"Goot!" said Priessnitz, nodding his solemn head in token of ample satisfaction; and folding my drapery around me, I marched upstairs, like a statue looking for a pedestal, or a belated ghost returning to its churchyard. I met Neuville descending with a stiffness of dignity which made me think of Bunker Hill monument walking down to get a bath in the harbor—so woefully



Priessnitz Air Bath

solemn, so dubious about his footing, so bolt upright, and yet so tottering.

Once more in the double-bedded chamber, I gave myself a few hurried rubs, and was about to dress when Neuville and Franz reappeared from the lower regions. With shivering fingers I seized my thick under-wrapper and proceeded to don it, with a glorious sense of anticipatory comfort. But that atrocious Franz saw it, snatched it, tucked it under his arm, then made a grab at my drawers and stockings and then signified by menacing signs, that I was to leave my coat on its nail. No luckless urchin at Dotheboy's Hall was ever stripped half so pitilessly. As for Neuville, who had been toasting himself over American fires through the mediocre chill of a Florentine winter, and was as sensitive to cold as a butterfly or a weathercock, or a Mr. Jarndyce himself, he was despoiled with the same

hyperborean unkindness. Out we went, nearly as thinly dressed as Adam and Eve, but leaving no Paradise behind us; forth we hurried, driven by Franz, that bald-headed cherub, horribly armed with a wet sheet; away into the woods we fled, to wander like Cains, and drink three or four tumblers of water before we might venture back to breakfast.

I took my first taste at the house fountain, and swallowed a pint with difficulty. I seemed to be full of water, oozing with it at every pore, like the earth in the spring-time; ready to brim over with it if I were turned ever so little off my perpendicular; fit to boil and steam like a tea-kettle, should I incautiously venture near a fire. It is astonishing how much moisture can be absorbed into the body through the skin; how nearly one can resemble a water-logged ship or a dropsical cucumber.



Getting up appetites for the Christmas dinner

# PHYSICAL HYGIENE AND MORAL PURITY

The Relation one to the other.—The Positive Necessity of Internal as well as External Physical Cleanliness

BY KATE LINDSAY, M. D.

THE science of the physical hygiene of the human body includes a knowledge of the laws upon which sound physical health depends; also a practical application of these principles for the prevention of physical disease and degeneracy. There is no fact better established than that mental weakness and moral depravity have a physical foundation in the weak, unclean, intoxicated, and more or less deformed and degenerated bodies of the criminal population of the slums, and inmates of poorhouses, prisons, asylums and other institutions demanded for the protection of society from the criminal impulses of the vicious, and to maintain the existence of those too sick or mentally weak to be self-supporting. The first principle of physical hygiene is that of bodily cleanliness. Purity of body is a broad term and means much more than a carefully bathed skin, hair faultlessly arranged, teeth well cared for, and hands artistically manicured, and clean clothing properly arranged to meet the bodily demands for proper raiment. All this outside cleanliness may cover a body filled with all forms of impure intoxicating material which is surely poisoning the body and causing brain and nerve degeneration which will be manifest in the lustful outbreaks of the roué and libertine, the crimes of the thief and murderer, and in the outbursts of anger, hysteria and other common nerve

storms which show the abnormal workings of a disordered brain and nervous system.

Dr. Lydston of Chicago has recently written a medical book entitled "The Diseases of Society and Degeneracy." One chapter is headed "The Chemistry of Social Diseases," in which the author shows the relation of toxemia to vice and crime. He treats the subject of intoxication under three heads, namely, "Alcoholism," "Narcotic Inebriety," and "Auto-Intoxication." That the habitual drunkard and the man dead drunk lying in the ditch or wallowing in filth unwashed and foul in some police station, is a very loathsome dirty object to look upon, no one will deny. His foul smelling breath and dull, bleared, watery eyes, and the sour, fermenting, ill smelling matter thrown off by his stomach, all indicate the internal as well as the external physical uncleanness of his body. The ribald song and vile obscene conversation and profanity are all tokens of the moral uncleanness of the mind, manifesting the morbid activity of a brain physically damaged by alcoholic poisons.

There is really a change in the minute structures of the delicate intellectual centers which renders clean normal thoughts and actions impossible until the man ceases to put into his stomach the vile poisonous drinks which carried to every tissue of the body by the blood

fill the structures with unclean poisonous matter, which interferes with the normal functions of every organ, and when carried to the extremes of dead-drunk-ness, paralyzes the activity of the higher brain centers which are the instruments of all mental actions. For the time being the man is intellectually dead as the term implies. When the intoxication begins, the moral and restraining faculties are dulled first. This leaves the passion and emotional centers without any restraining influences, and at the same time they are lashed to an abnormal activity by the poisons taken into the body and filling the fluids in which they are bathed, and from which they should be fed and nourished, with destructive, poisonous alcohol instead of pure, life-giving oxygen and other normal food elements. The blind, frantic struggles of the drowning man who in his frenzy will drag his dearest friend with him to destruction are a symbol of the insane, blindly murderous impulses of the man who, crazed by drink, kills wife and child and then ends his own miserable existence. The brain cells drowning in the toxic lymph are frantically struggling for life and activity and to kill their enemy seems needful for their salvation. The saloon and the brothel always go together, and they are both the principal sources from which the prisons, poorhouses, and other institutions for the restraint of criminals and the refuge of the incompetent are filled. The principal narcotics are tobacco, opium, cocain, chloral and absinthe.

To understand the befouling effect of these poisonous drugs on the tissues of the human body, it is only needful to examine the dwarfed under-grown body of the boy victim of the cigarette habit, smell his foul breath, look at his dirty mouth filled with discolored decaying

teeth, from which he is constantly expectorating filth, and listen to his conversation when among associates of his own type, watch his tendencies to destroy property, steal and lie, as well as his eager infatuation for vile conversation and unclean literature. The boy is said to be the father of the man. Can a morally and physically nicotine-befouled boy grow into a mentally and physically strong and morally pure manhood? "Can a clean thing come from an unclean?" All these poisons mentioned are taken into the body by voluntary acts of the victim. They are not required either for nourishment or to otherwise enhance its structural welfare.

Many are free from slavery to alcoholic and narcotic habits who yet suffer from intoxication and have unclean bodies filled with impurities. The wise man says, "Happy art thou, Oh land, when thy king is a son of nobles and thy princes eat in due season for strength and not for drunkenness." The air we breathe, the water we drink, those life necessities may all by misuse become sources of physical and mental impairment and resultant moral depravity. The temper of a whole family may be spoiled for the day because of a badly ventilated house with a gas-leaking coal stove and doors and windows closed, the sleepers taking in with every breath foul gases and filling the body with toxines. There is one suffering from headache, another feels nervous and out of sorts, a third dull and listless. There is anarchy and blind protest against the evils of bad ventilation by every bodily organ, and this anarchy within the vital domain is manifested outside by anarchy and rebellion in the family. Father and mother are cross and unreasonable with each other, unjust in their discipline and training of their children who are rebellious and dis-

obedient, hateful and quarrelsome with each other. The bad air toxines are as demoralizing as the alcoholic, and lead from home to the saloon and house of ill fame. Unclean water also is accountable for much intoxication which produces infectious disorders, the effect of which upon the body are all more or less demoralizing, and often when not fatal to the patient, they terminate in more or less mental and moral impairment, sometimes ending in insanity. Food in improper quantity and of inferior quality also causes much intoxication and is one of the most frequent causes of death in infancy.

To show how frequent and fatal food poisoning is in infants, I refer to the vital statistic reports of the State Board of Health of Michigan for August which show that 1,198 children under five years of age died in that state, of which diarrheal disorders were responsible for over five hundred deaths, or almost one-half of the infant mortality of the state. This report does not include those cases which although recovering partially from this wholesale food poisoning are left to grow up crippled for life because of dwarfed bodies and impaired mind and weak morals.

The convulsions due to spoiled food toxemia often develop later on an epileptic, of whom there are in this country an army of 160,000, all liable to manifest criminal tendencies at any time, and to commit murder, arson, rape, and all other minor offenses without even being aware of their criminal acts when they recover their mental balance again. Then there are the weak-willed, uncontrolled, nervous and hysterical patients who are often sentimentally religious and surprise their friends by sudden outbursts of crime, often showing no sense of appreciation of the gravity of their

sins against their fellows. Truly a clean ailmentary canal is a great aid to moral purity, and not only makes it less difficult to keep the seventh commandment, but what is more important, leads to an understanding and comprehension of the two great principles on which the commandments are founded: Love of God as supreme, and of mankind as ourselves.

The last great source of physical uncleanness is what is termed auto-infection, meaning self-poisoning. This may be the result of waste matter retained in the body because of diseased eliminative organs, or the virus may be formed in the tissues by reason of disease. All forms of these impurities tend to cause brain and nerve disorders; uremic convulsions are an evidence of kidney failure to remove poisons from the body. The liver excrementitious products retained are equally or even more damaging to the body, both morally, mentally and physically. All can remember the despondent, morally depraved, jaundiced patients who view everything through the yellowness of their own unclean, diseased bodies. To be physically clean means to keep the surface well bathed and the clothing clean and orderly and neatly adjusted. It also means to keep the digestive tract free from fermenting food and retained excretory matter. Constipation is an enemy to moral purity. And last of all, give the body pure air and water, and properly clothe it so that all the excretory organs will perform their offices of eliminating the wastes and poisons generated in the body properly. The keeping of the Living Temple physically clean and pure means much for not only human moral purity, but also the mental ability and physical strength of humanity.

# “JOY TO EARTH, GOOD WILL AND PEACE”

BY FRANCES EUGENIA BOLTON

In the midst of thorns and thistles,  
In the midst of tares and weeds,  
There are lillies, pinks and roses,  
And the grain and fruit we need ;  
And above the din and rattle,  
There's a song that cannot cease,  
Over woe and death and battle,—  
“Joy to earth, good will and peace.”

When the angels in the heaven  
Sang above the shepherd's fold,  
Such a Gift to man was given  
That no good can God with-hold.  
Christ, the Riches of all treasure,  
Makes all guerdon to increase.  
Love wipes out our pain in pleasure,—  
“Joy to earth, good will and peace.”

Through all din and dearth and famine,  
Through transgressions sore retard,  
There's the Voice of Love still pleading,  
“O return ye to your Lord.”  
Let your hand reach out to touch him,  
That your life-pain now may cease ;  
Christ is ours and God our Father,—  
“Joy to earth, good will and peace.”

So if from the highest Heaven,  
Love's goodwill to us comes down,  
Shall not love to men be given ?  
Shall not Love flow to our own ?  
At the Yuletide how heart's treasure,  
Makes the world's joy to increase:  
Let the saddest ones have pleasure,—  
Joy from soul to soul and peace.



Deep breathing (first position)

## SHOULD ALL BE ATHLETES?

### Must Every Man Become Athletic to Maintain Strength and Bodily Vigor?

CERTAINLY not. A man need not have the muscles of a Heenan or a Sandow to enjoy good health. The thing necessary is not that all the muscles of the body should be trained up to the highest state of vigor and efficiency, but certain groups of muscles which have an important part to act in the great vital functions should be maintained in a state of integrity. The most important of these muscles are the heart, the abdominal muscles, and the muscles of respiration. The greatest benefit to be derived from exercise is the bringing of these muscles into active play, so that their structural and functional integrity are maintained.

The heart of a sedentary man always becomes weak. The same thing is true of the respiratory and abdominal muscles. The consequences are deficient expansion of the chest, imperfect aeration of the blood, and through the relaxation of the abdominal muscles a chronic congested condition of the liver, stomach, and other abdominal viscera. This is followed by loss of weight and general depreciation of vigor.

A sufficient amount of exercise must be taken daily to keep the heart muscles and the muscles of respiration, which properly include the abdominal muscles, in a state of normal vigor. No

man is in a state of good health who can not run a mile at a moderate rate without any serious inconvenience. Hindoo couriers run at the rate of sixty miles a day consecutively. A well-trained runner can easily cover one hundred miles in less than twenty hours without any injury to himself, running continuously during this time. There is scarcely a man who can run a quarter of a mile without very great inconvenience and, in many cases, actual danger to life.

Old age can be held at bay more certainly by a simple diet and daily vigor-



Deep breathing (second position). Arms are thrown backward with a downward twist of the hands

ous exercise than by all other known means. The following are a few exercises which are especially useful as a means of maintaining the heart, lungs, and abdominal muscles in good condition:—



"Throwing the extended arms vigorously upward . . . bending and extending the knees and lowering the body."

Deep breathing for five minutes several times a day, with the chest raised high and the chin well drawn in.

Walking on tiptoe for half a mile daily.

Lying on the back and raising both legs well extended thirty to forty times two or three times a day, with the hands clasped at the back of the neck.

Throwing the extended arms vigorously upwards from the sides over the head, making the movement side-wise, while at the same time alternately bending and extending the knees, lowering the body as the arms are thrown upward, and raising the body as the arms are re-

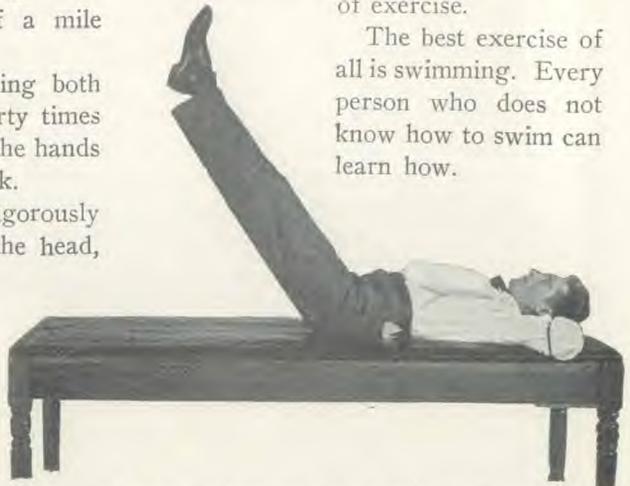


"Walking on tip-toe for half a mile daily."

turned to position. This movement repeated thirty or forty times in rapid succession, with the chest held well up and the chin drawn down, is a splendid means of stimulating the activity of the heart and improving the circulation of the blood through the stomach and liver.

Skating, lawn tennis, and other games, if played moderately, are a capital means of exercise.

The best exercise of all is swimming. Every person who does not know how to swim can learn how.



"Lying on the back and raising both legs well extended . . . with the hands clasped at the back of the neck."

# HEALTH HINTS FOR HOUSE HUNTERS

## Important Points which the Prospective Tenant or Purchaser Should Note in Selecting a Home for his Family

**G**REAT care should be exercised in renting or buying a house for family occupation. Many houses are now built purposely to rent or sell, and too many of them are constructed in a very flimsy manner. The object of the builder is to attract attention to his house, and money is spent in ornamentation, which should have been used in the more important parts of the structure. No one should place his family in a house until he has made a thorough investigation of its sanitary condition.

The mere advertisement that "the house is furnished with the most approved sanitary appliances" should not be considered as sufficient guarantee. The time will come when no one will be permitted to rent a death-trap in the shape of a house; but unfortunately at present, the duty of seeing that everything is really all right devolves upon the person seeking a house. For this reason a few practical directions for house inspection may not be out of place here. The writer has known a man, even after having been warned by a former tenant, to place his family in a house whose sole recommendation was its attractive appearance, and to regret his action a few weeks later, when typhoid fever had stricken them. The dangers to health and life are too great to allow any one to be careless or indifferent in this matter.

The house offered for rent or sale should be visited by the one seeking a home, and thoroughly inspected in regard to its sanitary condition, as well

as to its general appearance. The surroundings should be studied. The condition of the back yard—especially the location of the out-houses on the premises and those of his neighbors; the location and condition of cesspools, privy vaults, cisterns, or wells, if such be present, should undergo careful inspection. What the sanitary arrangements should be has been already sufficiently indicated.

The cellar should be visited, and if its walls be cracked, damp, and covered with mold; if water stands upon its floor; and if light and ventilation are not provided for, seek some other habitation. It is better far to sleep in the open air, with no roof but the sky and no bed but a few blankets placed on the dry earth, than to live in a house built over a reeking cesspool; and such a cellar is nothing more nor less than a cesspool.

The general construction of the house should be carefully scrutinized. Observe the height of the first floor above the level of the street; the proportion of the lot covered by the house; the arrangement and size of the rooms; the condition of floors, ceilings, and walls. Of course, newly constructed walls are always damp. A great amount of water is used in the mortar and plastering, and much of this must evaporate before the building is fit for occupation. Neither should a house freshly painted with lead paints be occupied until the paint is well dried. The living rooms should be placed upon the sunny, airy side of the

house. The bedrooms especially should be examined with reference to their size and ventilation. The floor should be of seasoned wood, well jointed. This is very desirable, as it prevents the accumulation of dirt under the floors, and permits of the free use of water in scrubbing the upper floors without danger of injury to the ceiling of the lower rooms.

If the house be furnished with any plumbing, this should undergo thorough inspection. A map showing the distribution of the pipes, unless all are in view, should be furnished by the owner. In many old houses, large brick drains are found in the cellar. These are always bad. In them a great quantity of filth accumulates. These are seldom sufficiently flushed. Such a condition should lead one to reject a house for residence. If the drain in the cellar be of earthen pipe, its joints should be examined, for they are often imperfect, and allow of the escape of both gaseous and liquid contents. In this way the cellar floor becomes impregnated with filth, and from it noxious exhalations rise into the rooms above. The writer has known of more than one instance in which these drains have been broken by settling, and the consequence was that a regular cesspool was formed instead of the drain. In one instance the break occurred near a cistern, and much of the chamber and kitchen slops soaked through into the imperfect cistern, polluting the water; and this was probably the cause of the typhoid fever which attacked four of the inmates of the house. Still worse is the box drain made of plank. Often at the junction of the vertical pipe, with such a drain, the wood decays, and a filthy cesspool is formed.

The best place for the sewer is in the rear of the house, but when in front,

the drain should be carried round the house; or, if through the cellar, it should consist of an iron pipe freely exposed along its entire length, and with sufficient fall to give a rapid current. Its grade should be uniform, and free from depressions in which accumulations might occur.

The soil pipe should be of iron, not of lead. Leaden soil pipes are often corroded and leaky. The ventilation of the soil pipe should be by means of a pipe extending above the roof. The water conductor from the roof should not be made to do service as a ventilating pipe. Moreover, when the rain-water conductor empties into the soil pipe the force of the currents passing through it will siphon the traps above, unless they are all thoroughly ventilated.

The location of all traps should be ascertained, and it should be seen that none of the pipes are either clogged or leaky. The separation of the water-closet from the bathtub and wash-bowls is important. It is not desirable to have even stationary wash-bowls in bedrooms.

If there is a water supply, it is well to see, before renting or buying the house, that all the pipes are in good order and so protected that they will not freeze. If the drinking water be stored in a tank, see that the tank is not lined with lead. All water pipes should be well protected, or they will sag and break.—*Dr. V. C. Vaughan, in "Lomb Essays."*

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"The things, O Life! thou quickenest, all  
 Strive upward toward the sky.  
 Upward and outward, and they fall  
 Back to earth's bosom where they die.  
 Well, I have had my turn, have been  
 Raised from the darkness of the clod,  
 And for a glorious moment seen  
 The brightness of the skirts of God."  
 —*William Cullen Bryant.*

# THE NATIONAL HOT BATH IN JAPAN

Scrupulous Measures Employed by the Participants—Experiences and Observations of an American Woman



Sketch of a hot bath in the open air, from the brush of a Japanese artist.

No one thing in Japan is the source of such unflinching curiosity and criticism from foreigners as the national bath. National it certainly is, for there everybody, high and low, rich and poor, expects to take at least one hot bath a day. With western nations a bath is an evidence of luxury, and only the well-to-do and leisure classes have the habit of bathing daily, and many of these consider a weekly hot tub all that cleanliness requires, while to thousands of the poorest people a bath is utterly undesired and unknown unless by chance they may be forced to take one at a hospital. The climate of Japan is such that, be it winter or summer, a hot bath

is a delightful stimulant, and seems to have no bad effect, while a cold tub is positively injurious. Even the hide-bound Englishman relinquishes his lifelong cold tub habit while in this dainty kingdom, and follows the native example in taking a daily hot one.

As a rule, the traveled foreigner has a preconceived idea of the Japanese bath that is only partially correct. He tells you glibly: "The Japanese are a great people for bathing, yes, indeed, great, but their way of bathing is simply disgusting; the whole family take their bath in the same water, in the same tub, you know, and you can't call that clean." There is just enough truth in

this to make it the worst kind of a falsehood.

Poor indeed is the household, and hard to find, which does not own a bath tub. The tubs are all made of wood, and a good one that would last a lifetime will cost two or three dollars. They are round like a barrel, and are about as large as a sugar cask, but not so high. The Japanese always sit in a kneeling position, and so in one of their tubs in this position it is large enough for them to use their arms comfortably, and the water comes up to their shoulders. The heat is supplied by charcoal burned in a funnel-like iron pipe which goes up inside the tub close to the edge, and being several inches higher than the top of it, the water does not leak inside. A board, perhaps ten inches wide, fits into a groove in the bottom of the tub, and is held in place by strips of wood that slip into sockets, and this forms a shield, protecting the bather from contact with the hot pipe. At the base of the pipe inside is an iron grating on which are placed pieces of lighted charcoal, and other small unlighted pieces are crisscrossed above, and then two or three larger pieces are stood up on top. The draft through the pipe soon ignites all the charcoal, and the intense heat thus generated warms the water. It takes about three-quarters of an hour to heat a bath to the temperature pleasing to a Japanese, a hundred and ten to a hundred and twenty-five degrees, and as the heated water constantly rises to the top, a maid, or some member of the family, with a big dipper made from a section of bamboo fitted with a handle, stirs the water from the bottom every ten minutes or so, and thus keeps it all at an even temperature.

In some large households and in hotels the bath is a square wooden tank sunk two or three feet into the floor.

As a rule, a well-to-do Japanese takes great pride in his bathroom, and the woodwork will be as dainty as a cabinet. No paint or varnish is allowed to conceal or gloss over the grain of wood, and as no soap or greasy substance comes in contact with it, it retains its natural color, and only grows darker with years of use. The floor will be of tiles or of wood, as the taste of the owner prefers, but it is always laid sloping toward a drain that carries off the water. The walls may be entirely of wood, as is the ceiling, or they may be wainscoted, with the upper part tiled or covered with a hard, stone-like plaster. Never is paper used on the walls, for then they could not have the daily washing down that keeps them so scrupulously clean.

When the tub, or more properly speaking, the tank, is let into the floor, it is usually about six feet square, but at hotels one often finds it much larger. The bottom of the tank being twenty-five or thirty inches below the floor level, a plank for a seat is fastened about a foot from the bottom, extending around two or three sides. On the fourth side is the metal against which the fire is laid outside of the bathroom, and so none of the charcoal fumes penetrate through.

To make clear the truth and falseness of the foreigners' statement, I will describe my first bath taken in true Japanese style. It was at the time of the world's fair at Osaka last summer, and I had been in Japan long enough to know what a sociable people they were and how they liked nothing less than being alone. Their baths, I had understood, were lengthy affairs, and they preferred to take them in company and not privately as was our custom, and I also knew that the sight of the human body unclothed was as natural to them

as is the sight of the bare face to us.

My traveling companions were three Japanese ladies, and a son had driven us from the grounds of the exhibition to our hotel, early in the afternoon. The first thing that a Japanese does on arriving at a hotel, no matter what the hour of day or night, is to ask for a bath, and in a short time one is made ready. The bathroom is arranged with the idea

bath maid had said I could not have one alone but must take my bath in company with my three companions. This they hated to tell me, as they knew I had always previously had my bath to myself. Much to their surprise, I said the maid was quite right, it would be unfair for me to take the bathroom all to myself, and so we four would bathe together. Relief and pleasure showed



After the Bath

that from three to six people will bathe at the same time, and in that way all at the hotel may get one or two baths a day without trouble. While I was removing my rain-spattered clothes, I noticed my friends talking together as though some serious matter was at stake, so I asked what was the difficulty. It appears that the hotel was very crowded, and the bathrooms in so much demand that the

in their faces, and they replied it would be a great honor to bathe with me. We then made ready for the bath by removing all our clothes and putting on the pretty, clean cotton kimonos that are brought to each guest as soon as he arrives at the hotel, and slipping our feet into the straw sandals also provided. Picking up our towels, for a guest in Japan always provides his own towels

even though his bath and sleeping garment are furnished by the hotel, down the long corridor we trotted in Indian file, to reach the bathroom. It was a charming room, brightly lighted and spotlessly clean, about twelve feet square, with a big tank filled with fresh water. Outside was an anteroom or closet, with several shelves and a washstand on which were arranged half a dozen shining brass basins, about a foot in diameter, and as many small wooden stools stood on the floor below. Each one of us took off her kimono, folded it, and laid it on a shelf by itself and placed the sandals side by side on the floor. I let my friends go first, and, watching closely, did just as they did. Next, each one picked up a basin and a stool and walked into the bathroom, the last one shutting the door but not locking it, so the bath maid might come in if we needed her and called her by clapping our hands. Setting the stools on the floor, my friends took their basins to the tank, filled them with hot water, and then sitting down on their stools began to wash themselves. Such scrubbing and rubbing I had never seen before, even though a Turkish bath was an old friend and I had flattered myself that I was more than ordinarily cleanly. To an arm alone they gave full five minutes' steady work, rubbing it round and round and up and down and inside and outside, and then rinsing it all off most carefully and thoroughly with cold water, which they drew from a nearby faucet. I, having followed their example as far as the stool and basin of hot water, and settled myself to the usual wash-cloth scrub, and after completing the task to my satisfaction and having rinsed my body as my companions had done, was about to step into the tank when I observed that they were scarcely more than one-third through, and at

that very moment were discussing the utter impossibility of decent people taking a bath in less than one full hour's time. Meekly again I sat down on my stool, refilled my brass basin, and a second time I went over my entire body with soap and water. When that was completed do you believe my friends had completed their preliminary wash? Not at all. They were perhaps then two-thirds through, so again my basin was freshly filled and I began on a third wash. Before I had quite completed this, one of the ladies got up from her stool, came over to me, and saying, "Excuse me," took my wash cloth, soaped it, and gave my back such a rubbing that I felt sure she had not left even the skin. We four being thoroughly washed and perfectly rinsed, now stepped into the tank, the water of which was so hot it made my flesh sting. Here we sat and gossiped cozily for at least a quarter of an hour, and when we got out I noticed the water was not even clouded. And why should it be, when we all had washed ourselves so immaculately clean before we went in?

It is true that in a household the whole family, servants included, get into the same tub for their hot soak, the privilege of the first bath always falling to the oldest member. But when you realize that each one has washed himself to a state of scrupulous cleanliness before he enters the bath, and that such a washing is a daily occurrence, our ideas of cleanliness undergo a change.

The love of cleanliness is inborn with the Japanese, and the government recognizing the fact, and being paternal, has established in all cities and large towns bath houses which are frequented by both rich and poor.

Foreigners are not desired and often are not permitted to take baths in the

public bath houses, but it took me a long time to discover the reason for this. An American lady visiting a Japanese family on the west coast was the only foreigner in the country. Some repairs being needed in the bathroom of the residence, the head of the family, a dignified elderly gentleman, went himself to the public bath house to make arrangements for the entire household to take their baths there for a few days. The hour and price being easily agreed upon with the general bath manager, the old gentleman was much perturbed to be notified a couple of hours later that the bath man had found he could not allow the family the use of the baths. No reason was given, but the message, extraordinary as it seemed, was quite clear. Concealing his anger and morti-

fication, the old gentleman went again to the manager, and after a long talk found the foreign visitor had been the occasion of the refusal.

The bath man said if it was known that a dirty foreigner who did not take a hot bath oftener than once a week, and then washed herself in the very water of the tank, defiling it with soap and the soil from her skin, was frequenting the bath house, all his regular patrons would stay away and his business would be ruined. So the poor lady was forced to remain at home while her friends went to the bath, and as the whole community knew she could not take a hot tub there, she felt her reputation for uncleanness was established forever.—*Marguerite Glover, in "Good Housekeeping."*



Preliminary Cleansing for the Hot Bath

# A NEW CURE

BY  
FLORA  
CHARLOTTE  
FINLEY

LARRY sat by the stove with his stockinged feet spread comfortably toward the cheerful warmth. The room was cozy with lamplight and firelight, the supper table was set, the kettle singing an accompaniment to the purring cat that lay on the braided rug before the fire slowly waving the tip of her tail to answer her frisky kitten.

Outside the wind howled and jerked at the blinds like some living, wild thing, eager to get in to the warmth and comfort. Occasionally a handful of sleet dashed sharply against the window pane, while its steady down pour upon the tin roof added another note to the great harmony of the storm.

Larry's wife, Maggie, was bustling about the tidy room, putting the finishing touches to the supper and adding a pleasant touch to the homely picture by her fresh color, neat dress and brisk movements. Larry watched her appreciatively through half-closed eyes.

It was good to get home after a hard days work in the cold and sit at last in such a pleasant place, enjoying through the sense of smell the savory onion stew which was now being made

ready to taste as well as smell. Larry held in one hand a small bottle which he now and then shook as he talked.

"The blamed pills is gone again," he grumbled, giving the unoffending bottle a vicious shake and squinting into it afterward. "All but wan, bad cess to ut! I'll put ut out of ut's misery at once, so I will."—He swallowed the small pellet with wry contortions and tossing the empty bottle into the wood box, drew his chair to the supper table.

Maggie drew her chair opposite him and poured his tea, while the cat improved the opportunity to jump into

Larry's vacant place by the fire, glad to escape for a little while the somewhat overwhelming attentions of her offspring. The kitten, finding itself deserted, concluded to make the best of it, so curling its little tail about its toes it sat and washed its face or gazed dreamily at the fire, the very picture of an old cat in miniature.

Larry and Maggie ate hungrily and with few words for a time, then the acute pangs of hunger assuaged, conversation began.

In a dark corner of the kitchen where they were, stood a little high-chair, a battered rattle tied by a faded ribbon to one arm. At every fresh gust of wind or rattle of sleet against the window Maggie's face grew sad and her eyes wandered away to the dusky corner and the little vacant chair. Larry knew what it meant. His thoughts, too, went often to the little mound on which the late winter storm was now beating. He must not break down before Maggie; she was trying so hard, poor girl, to be brave. So he cleared his throat, tipped back his chair and told the happenings of his day in as cheerful a way as he could.

Maggie cleared the table and washed the dishes while she listened, and when the room was in shining order and Larry's pipe was sending blue, fragrant wreaths into the warm air, she brought her rocking-chair close to his and cuddled the sleepy kitten in her lap.

She had been a factory girl before Larry married her and she was grateful indeed for her cozy home and the knowledge that she no longer need toil early and late in the great mill.

Both looked dreamily at the fire for a time, then suddenly Maggie roused herself with a start and said:—

"The postman was aafter comin' here to-day, Larry. 'Twas a book he

brought, directed to you—Mr. Lawrence O'Shea. I really thought 'twas a mistake somehow, but the number and street's on ut, so I took ut in. I put ut in the parlor for fear somethin' would happen and I most forgot to tell you. I'll get ut."

She vanished into the chilly dark parlor and returned with a package. Larry stuck his pipe firmly into one corner of his mouth and examined the parcel with minute care on all sides, studied the direction, and inspected the stamp. Failing to discover anything wrong he took his big clasp knife and carefully removed the wrapper.

It proved to be a gorgeously ornamented catalogue from a big retail store and Larry and Maggie were soon bewildered at the variety of things offered for their inspection. They turned the pages and looked at the illustrations like two children. It took nearly the entire evening, and at the very last part of the book they reached the drug department and Larry's waning interest was all alight once more.

"Now we've got ut!" he exclaimed. "Maybe it's finding a new kind of pills, I'll be—sure I've took the old kind long enough. I've tried all the kinds there is in the corner drug store—'Golden Globules,' 'Lovely Liver Lifters,' 'Peaceful Pain Pacifiers,' and several others. Now let's see what these folks have."

He ran his big forefinger up and down the page and read with care the elaborate advertisements.

Maggie's eyes had wandered to the opposite page and she suddenly exclaimed, "Larry, Larry, here ut is!"

"Where?" said Larry.

"Here, seeds and bulbs. You know you said you'd plant me a garden this spring and here's just the place to send for seeds."

"All right, Maggie. Make out your list and I'll choose my brand of pills and we'll send."

Eager discussion filled all their hours together for days after. Maggie spent all her spare time with pencil and paper making and altering her precious list of seeds.

Larry made his choice of pills in less time, but as he wanted to send his order at the same time she did, he obligingly bought a box of the old kind to piece along with until the new should come.

At last the list was completed and sent. It seemed a long time before they heard, and Maggie was afraid they would never get the things at all.

There came a day when once more the postman stopped at the door, this time with a package, not nearly as large a one as Maggie had expected it would be, and she was disappointed, but she kept it until Larry came home at noon and when they opened it they found it correspond exactly to their list with two or three extra things thrown in for good measure.

They had planned the garden so many times that every inch was arranged for and nothing remained now but to put the seeds in the ground and wait.

Larry was studying the directions on his package of new pills—"Sure, they ought to make me strong," remarked the big fellow, who in spite of "Golden Globules" and other horrors taken in wholesale doses, had never known a day's sickness. His mother had been weakly and he had learned the habit of "take something" in the shape of medicine from her.

Maggie was delightedly opening and peeking into the various packages of seeds. "'Tis the sweet peas we'll be havin'—sure they've sent enough to plant the whole yard," she remarked, pouring out a small handful onto the

table. Larry at the same moment poured out the contents of his pill bottle to see how they looked and how many there were.

"There's a hundred of 'em," he remarked. Crash! Bang! Rattle! Maggie and Larry sprang to their feet and rushed to the door. Fire engines were tearing by the house and in the next block they could see thick smoke. "My hat," yelled Larry. "Here Maggie, take this bottle!" He was gone before she knew it, and after watching for a time she went back into the house.

"Larry said there was a hundred," she said to herself as she started to pick up the pills and peas from the table. "I'll count and see." Slowly she picked up the little pellets and sure enough, one hundred filled the bottle full. She corked it tightly and put it on the shelf, then swept the sweet peas into their package and tidied up the room.

The next day Larry took half-day off from work and together they planted the garden. Larry also took three of the new pills and professed to feel great benefit from the first.

The garden grew like Jack's beanstalk, and everything they had planted came true except the sweet peas, these acted strangely. Sometimes there would be a whole row where nothing came up and in other rows were great empty places.

"Sure I planted them thick," said Maggie, "but we'll have enough anyway."

Larry did not flourish as well as the garden. He began to complain of not feeling well in spite of continued and increased doses of the new pills, and one day he grew worse so rapidly that the frightened Maggie sent for a doctor.

"Appendicitis" was his verdict and poor Larry was hustled off to the hospital to undergo an operation.

Upon the removal of the offending organ the surgeon found some dozens of strange-looking small pellets and he asked Maggie what her husband had been eating. The weeping Maggie thought her of the new pills and she showed the doctor the now almost empty bottle.

"These are not pills," said the doctor. "I don't know what they are, but they look like seeds of some kind."

Maggie thought hard and all at once she remembered the sweet peas and the pills together on the table.

She had painstakingly counted out one hundred sweet peas while Larry was gone to the fire, and he had taken them faithfully (perhaps fatally), and had planted the pills.

No wonder the garden looked strong and flourishing and the sweet pea bed so ragged and uneven.

I really believe Larry's appreciation of the joke helped to save his life, for Maggie told him as soon as the doctors would let her talk to him. At any rate, it cured him of taking pills, and they had plenty of sweet peas besides.

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## THE SUN A LIFE PRESERVER

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### Sunshine, Nature's Great Pervasive Germicide,—Its Importance Within the Home

The sun is the life-preserver, the health-promoter of this earth. If it were not for the constant influence of its light and warmth, vegetables, trees, and flowers would be a sorry lot of pale, unhealthy plants. They might grow as the edelweiss does, among the snows of the alps, but there would not be the rich glowing colors, so beautiful, so delicate, so graceful in their blendings, which the artist has never yet been able to imitate.

There is no greater promoter of happiness than sunlight. It revives our drooping spirits, stimulates a desire to go out and live in the air, and thereby come in contact with the largest measure of health-giving influences. One of the most valuable secrets of happiness is living in the sunshine. Remarkable cures of all sorts of diseases are recorded as an effect of various rays of light. We all remember the blue-glass fad, which once ran through this coun-

try and Europe. There was really more truth than superstition in this system, and only recently it has been applied by scientists, under more perfect conditions, and with marked success. We urge our readers to go into the open air, to commune with nature and receive her many blessings.

Although for centuries it had been more than suspected that sunlight was Nature's great disinfectant, it is only within recent years, says the *Medical News*, that bacteriologic investigations have shown that white light is a most powerful inhibitory agent for the growth of all forms of microscopic life. Somehow the actinic rays of white light, the same that causes the changes in the silver salts in photography, are able to initiate alterations in the chemical constituents of microbes that eventually lead to their complete destruction. Unfortunately, Nature's pervasive germicide is not allowed to penetrate into the liv-

ing room of city folk in sufficient amounts to permit the full exercise of these beneficial powers. This is true not alone in the house of the poor, for even from the dwellings of the better class sunlight is excluded as zealously almost as if it were an instrument of harm.

The dim cathedral light that seems to many housewives the great desideratum for living rooms is a serious preventer of important natural, hygienic processes—processes that deserve to be encouraged, not obstructed. Curtains that keep out the sunlight lest it fade the carpet or the wall paper, or show too clearly that the housewife herself is no longer in the bloom of youth, do much more than merely darken the room. They make it a favorable living and breeding place for any bacteria that may be introduced. Hallways into which so many bacteria are brought direct from the dusty streets, instead of being the most lightsome parts of the house, are usually the darkest. Double

doors and stained glass effectually preclude active sunlight.

The improvement in health among the poor of our large cities as the result of letting the light into the tenements shows how much good the great solar scavenger can accomplish even under unfavorable circumstances. A time will come, doubtless, when the family physician will form one of the family council as to hygienic arrangements of the home. Meantime, the lesson must be insisted on that sunlight can not with impunity be denied free entrance to the house. The orange and red stained-glass windows may give elusively brilliant color effects on hangings, rugs, and furnishings, but they disarm sunlight of its conflict with disease. They shut out the precious rays at the blue end of the spectrum, odorless, noiseless, but efficient scavengers, that do Nature's work and so make life possible for the higher organisms in spite of the multitudinous germs that exist and multiply so rapidly all around them.—*Dietetic and Hygienic Gazette*.



Fresh air and sunshine are the baby's heritage even in the dead of winter

# OUTDOOR SLEEPING IN THE WINTER

How One may Fully Enjoy the Vivifying Effects of the Winter's keen fresh Air at Night with Complete Protection from the Cold

BY ONE WHO HAS TRIED IT



Sleeping porch, with curtains raised

THINKING people everywhere, in these days, recognize the value to health of fresh air. The purpose of breathing is to obtain from the air a supply of oxygen, to be taken up from the lungs by the blood and circulated throughout the body.

Cold fresh air contains more oxygen to the cubic inch than does warm air. This is why a brisk walk on a cold winter day is more invigorating than a similar walk in warmer weather. When one is tired, he rests quicker by breathing fresh, cold air, because weariness and fatigue are due to an accumulation of

bodily wastes and poisons generated by work and retained in the body and these are burned up by the oxygen taken in through cold air. Cold fresh air quickens all the vital processes and tones up the entire system.

In mild weather life in the open air is generally looked upon as an enjoyable privilege, but when winter approaches, people are apt to immerse themselves within doors with but an occasional venture into the open air, unless necessary business compels them to go out.

No one can afford to miss the good

to be derived from pure cold air to breathe, and there is no better time to secure it than when one is asleep. One's courage may fail at the thought of leaving the cozy warmth indoors to breast the wind and snow for a walk or a drive, but when well protected by warm wrappings it becomes a joy to sleep out in some sheltered corner, breathing in health and vigor in every breath.

One-third of life is spent in sleep. Let that third, at least, be spent under the best conditions.

One who sleeps in a warm, confined atmosphere will awake in the morning unrefreshed and uninvigorated, because oxygen was not plentiful enough to consume the wastes of the body. Many people sleep with windows open at night to admit the needed fresh air. This also cools the house, often necessitating a cold room in which to dress, while if the house be small it not infrequently happens that several hours elapse before it becomes sufficiently warm for comfort, after the windows are closed in the morning.

An advantage in sleeping out upon a porch or some purposely arranged apartment, is a warm house to step into upon arising. There is less draft, less probability of taking cold when entirely surrounded by the fresh cold atmosphere than when a current of air is rushing in through an aperture at one side of the room.

The special difficulty to be overcome in out-of-door sleeping, is to maintain proper bodily warmth. No benefit can be derived from sleeping in the open air if one is cold or chilly.

During an experience of several months last winter the writer found little trouble in keeping warm and comfortable even in zero weather. A porch facing the west and north was chosen as the sleeping apartment. Curtains of

canvas that could be rolled up or let down by a simple cord adjustment were so arranged around the outside of the porch as to serve as a protection on any occasion of storm, the cord being fastened so near the sleeper that the adjustment could be made without getting out of bed. A cot with woven wire springs and a felt mattress constituted the bed. One sleeps warmer upon a narrow bed. There is less air space between the sleeper and the coverings.

This cot was placed near the house door which made it convenient for the occupant to step over the end of the cot into a warm room when the morning light showed snowbanks under and along side the cot.

The bedding was left out for airing during the day except in damp weather. Just before bedtime it was gathered in and hung over the steam coils to warm. Linen sheets were not used. Over a cotton pad above the mattress was spread a heavy Turkish sheet, soft and comfortable to lie on and which retained the heat for a considerable time. The top covers were light weight, woolen double blankets, three if the weather was severe. To protect the face, a silk or cotton shield was basted upon one of these. In making the bed, the blankets were doubled well under the upper mattress, thus forming a snug "sleeping bag." To maintain the warmth, a bag filled with hot water was placed inside at the foot, at the coldest corner, and another, a spine bag, filled with hot water held guard along the coldest side.

One should be warm before going to bed when sleeping outdoors.

The very best preparation for a sound, warm sleep proved to be a neutral bath because it equalized the circulation.

After the bath, equipped in soft washable pajamas, bed stockings long enough

to cover the knees, and over these a robe made of a light-weight, all-wool blanket, to the hem of which were attached pockets for the feet, a hood made of Turkish toweling to cover the head and ears, an additional light half blanket to tuck about the neck where any cold air space

might occur, and a warmed bed to get into, there remained no excuse for not sleeping warm while inhaling the life-giving oxygen of the cold fresh air untainted by bodily exhalations.

The results were an appreciable increase of strength and energy for work.



Sleeping porch, with curtains partially lowered

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## Heredity

"Adam, the son of God."

Am I a creature of the past,  
 A past I never can unmake?  
 Do vital fetters bind me fast,  
 With lineal links I can not break?

Be as it may, this truth I know:  
 The past holds good as well as ill,

And mine the choice which strain shall throw  
 Its further influence o'er my will.

And in the long ancestral line  
 Thro' which I must be blessed or cursed,  
 I trace at length the name divine,  
 And find with joy it standeth first.

—Philip B. Strong, in *S. S. Times*.

# BENEFICIAL EFFECT OF RELISHES

## Appetizing Qualities of Healthful Foods of Immense Value to Digestion, Pawlow Demonstrates

IT is no new idea that food that is relished is better digested than that which is not relished, but it remained for Pawlow to prove this fact by laboratory experiment. By laborious researches extending through many years, Pawlow has developed almost a new physiology of digestion. By means of ingenious experiments upon dogs, a multitude of new facts and principles have been discovered. Not the least important of these is the experimental demonstration of the relation of appetite to digestion.

### PAWLOW'S REMARKABLE DISCOVERY

Pawlow found that the stomachs of his experimental dogs poured out an abundant flow of pure gastric juice when not a particle of food had entered the stomach. The mere mastication of food, and, in some instances, the mere sight or smell of it, was sufficient to produce a free flow of very active gastric juice called by Pawlow "appetite juice." Food which was not relished produced no appetite juice, while food for which the dog had an unusual liking, especially when the animal was very hungry, caused an unusual flow of juice.

By comparing this appetite juice with ordinary gastric juice, that is, gastric juice produced by the presence of food in the stomach, Pawlow showed that appetite juice was much the more powerful.

These experiments are of great significance to the dietitian, the caterer, and the cook, as well as to the physician and the nurse. They point the way to a most

practical and important method whereby the digestibility of food may be enhanced. Pawlow has demonstrated most conclusively that food which is not attractive in flavor lacks an element most essential for its digestion, while food that is repugnant to the taste may be altogether indigestible. In other words, relishability is a condition essential for digestibility.

### A POINT FOR DIET REFORMERS

This is a point which has perhaps been too little considered by diet reformers,—a fact which doubtless accounts to some degree at least, for the opposition which has made progress so slow in the effort to reform the menu of the modern household. An insipid, unrelishable diet, as shown by experience as well as by Pawlow's laboratory observations, is less digestible, even though composed of the simplest foodstuffs, than relishable food of a much more complicated and refractory character. Food, every morsel of which is resented by the palate, does not call forth the digestive fluid necessary for its solution. The consequence is, such foodstuff lies heavy in the stomach, and, lacking the preservative influence of active, freshly secreted gastric juice, it undergoes fermentative and putrefactive changes, and the result is autointoxication and the various forms of indigestion.

### WHY CONDIMENTS ARE CRAVED

There is then a physiologic foundation for the use of mustard, pepper, pepper-sauce, salt, and the various condiments which are in common use. These

substances give flavor to the foods, and to many persons to whom they are agreeable, they develop appetite juice, and hence insure the glandular activity necessary for active digestion. A person who has been accustomed to the use of stimulating condiments, feels a decided loss upon their withdrawal; appetite fails, digestion is slow, and impaired nutrition is indicated by loss of flesh.

It can not be conceded, however, that the use of irritating condiments is in any way essential to good digestion or good health. The evidence of the pernicious character of these substances is unmistakable. The damage which they do to the stomach, liver, kidneys, and other vital organs in setting up inflammations, acute and chronic catarrhs, sclerosis, and other degenerative changes, is definite and certain, and they can not be recognized as in any sense whatever necessary or wholesome.

#### NATURAL CONDIMENTS

But the food must be rendered palatable by some means. Fortunately we are not left to the mercy of the mustard pot and the horse-radish bottle. Nature has supplied us with an abundance of wholesome flavoring materials which are readily obtainable if sought for in the right direction.

There can be no doubt that the pioneers of diet reform in this country gave too little thought to the question of palatability. Their stern convictions respecting the unwholesomeness of many of the comestibles in ordinary use, and of the duty of turning back to nature in diet as in other habits of life, led them to ignore, perhaps too largely, the demands and suggestions of the palate, and to rely more fully than was safe upon theoretical considerations. Theory is a safe enough guide when one is sure that he has compassed the whole matter; but theory to be a safe leader must first be

trained and tutored by experience to make sure that all essential factors have been considered.

For more than thirty years the writer has been earnestly engaged in making a close study of practical dietetics. The question of palatability was one of the first which engaged his attention. After having struggled for eight or ten years with the effort to relish things which were unrelishable, and to find palatability in things absolutely without flavor, an earnest effort was begun to develop foodstuffs and food combinations possessed of wholesome and natural flavors of such quality and intensity as to recommend them to a natural palate. A laboratory was established with an expert in charge of it, and the experimental work then begun has been kept steadily in operation for nearly a quarter of a century. Scores of intelligent women, and a few men who have become interested in the reformation of the culinary art have contributed to the progress which has been made. The result is some hundreds of tasty, palatable food preparations and combinations which are, in relishable properties, not a whit behind the daintiest products of the most famous chefs. It is now possible to spread a health banquet which shall be in every respect wholesome, while at the same time sufficiently appetizing and relishable to satisfy the most critical palate.

#### DIET REFORM NOT ACETICISM

Diet reform at the present time does not mean the abandonment of everything relishable, and the eating of things indifferent or repugnant to the taste, but means rather an introduction to a multitude of new gustatory delights. The Good Book exhorts us to eat that which is good; and the latest word of physiology is that the best food, that which is really "good," other things being equal, is that which tastes good.

Recently some interesting experiments have been conducted in the experimental laboratories connected with the Battle Creek Sanitarium for the purpose of determining the actual value of some of the wholesome relishes which the new cookery has developed. Two of these in particular were made the subject of experiment. One known as *mock chili sauce*, consists of the following ingredients: lemon juice, tomato, onion, sugar, salt, and celery. Another, known as *sanitas relish*, consists of the concentrated extract of nuts with the addition of vegetable juices and a minute quantity of savory herbs.

#### NEW GASTRIC EXPERIMENTS

To ascertain the effect of these relishes upon gastric work, three healthy young men were made subjects of experiment. Test meals consisting of granose flakes—the ordinary meal employed for the purpose—were given to these young men, and at the end of an hour the contents of the stomach were removed and examined carefully. The determination showed the amount of free gastric acid, commonly known as hydrochloric acid, the combined acid, and the total amount of acid, free and combined, also the digestive power, indicating the amount of pepsin present. Each of the subjects was then given a test meal consisting of mock chili sauce; and later a test meal of sanitas relish, and like determinations were made. The results of these experiments are summarized in the following table:—

	Pepsin Coefficient	Free HCl.	Combined HCl.	Total HCl.
G. H.				
Granose Flakes,	12.25	.128	.040	.168
Mock Chili Sauce,	4.00	.190	.138	.328
Sanitas Relish,	2.25	.092	.138	.230
H. H.				
Granose Flakes,	6.25	.074	.064	.138
Mock Chili Sauce,	6.25	.170	.142	.312
Sanitas Relish,	9.00	.158	.146	.304
J. K.				
Granose Flakes,	9.00	.044	.056	.100
Mock Chili Sauce,	1.00	.000	.206	.206
Sanitas Relish,	9.00	.200	.148	.348

#### AVERAGES

Granose Flakes	9.17	.082	.053	.135
Mock Chili Sauce,	3.75	.120	.162	.285
Sanitas Relish,	6.75	.150	.144	.294

A glance at the averages of the above figures shows at once the very decided effects produced by the relishes employed in this experiment. In the case of the chili sauce, the average amount of free gastric acid was increased fifty per cent. The sanitas relish increased the amount of acid more than eighty per cent. The combined acid was increased nearly three hundred per cent by the sanitas relish, and still more by the chili sauce; while the total gastric acid produced was more than double in both cases, the exact figures being 211 per cent increase in the case of the chili sauce, and 218 per cent increase with the sanitas relish.

Here, then, is the positive proof that the activity of gastric digestion may be increased to a marked extent by the addition of suitable substances possessed of decided and agreeable flavor while at the same time free from unwholesome properties. It may be noted that the pepsin coefficient was diminished in the case both of the chili sauce and of the sanitas relish. The reason for this is not that these substances lessen the formation of pepsin, but that they do not contain the properties necessary for calling forth the secretion of pepsin. This property, which is associated with dextrin, is present in large amount in granose, hence the very high coefficient obtained with the granose meal. In the system employed for estimating pepsin,—that of Metz, devised in Pawlow's laboratory,—the normal amount of pepsin is indicated by 1.00; so it appears that the lowest figure obtained, found after the chili sauce meal (3.75), the coefficient was nearly four times the normal, and hence ample to secure thorough digestion.

## NORMAL GASTRIC STIMULATION

An important fact which appears just here is worthy of further notice; namely, that by a combination of the dextrinized grains, such as granose, granola, granuto, zwieback, breakfast toast, or other thoroughly dextrinized preparations with these wholesome relishes, the most powerful digestive effects may be obtained, since the predigestion or dextrinization of the cereal develops properties which call for the secretion of pepsin in abundant quantity, while the wholesome relishes mentioned, and others of similar character, enable the stomach to form an abundant quantity of digestive acid. That is, in case of either one of the subjects of experiment, a combination of granose or some other dextrinized cereal with each one of the relishes taken, might have nearly doubled the digestive power of the gastric juice formed. Here is a most fertile field for further investigation and experimentation.

## HYPERPEPSIA OR HYPERCHLORHYDRIA

A person suffering from hyperpepsia, or hyperchlorhydria, that is, one in whom an excess of gastric acid is formed, must be careful to avoid the use of highly flavored food substances, since by this means the already irritable stomach may be stimulated to still greater excess of activity. On the other hand, persons suffering from hypopepsia, or slow digestion, and constipation, with dilatation and overdistension of the colon, will find great benefit from the habitual use of wholesome relishes and highly flavored foodstuffs. The increase in gastric acid thus produced will insure increased peristaltic activity, and thus antagonize constipation.

## CONSEQUENCES OF SLOW DIGESTION

The lack of gastric acid is responsible for a great number of disorders which have their seat in the alimentary canal. Gastric catarrh, intestinal catarrh, gall-

stones, jaundice, chronic autointoxication, and numerous other maladies are usually associated with a deficiency of gastric acid whereby the multitudes of germs which are constantly being swallowed into the stomach are permitted to grow and develop, thus producing an ever-increasing infection of the alimentary tract.

This condition is especially indicated by the fecal discharges. When these are black and ragged, especially if very foul smelling, no matter what the color may be, the indication is an infected state of the colon, and, as a result, the constant absorption into the blood of enormous quantities of poisonous matters which must sooner or later result in grave disease of the kidneys, liver, and other vital parts.

Persons who suffer from a deficiency of gastric acid may antagonize this condition by the habitual use of those natural gastric stimulants which are abundantly afforded by natural, wholesome flavors; and since these are not contained in ordinary foodstuffs in sufficient quantity to meet the requirements of persons whose stomachs have been weakened by disease, concentrated flavors may be, with advantage, added to the food in order to arouse the secreting function of the stomach to a proper degree of activity. Such stomachs are like persons whose hearing has become impaired,—one must speak loudly to make them hear. The stomach which has become deaf, so to speak, to the appeal of ordinary foodstuffs, may be aroused to activity by the powerful though wholly natural stimulation of wholesome relishes.

It thus appears that the use of relishes which are free from irritating and caustic properties rests upon a sound physiologic basis, and is a matter to which greater attention should be paid.

# SOME DAINTY CHRISTMAS DISHES

Valuable Suggestions for the Housewife Who Would Have Her Christmas Fare Wholesome as Well as Palatable

## CREAM OF CRECY SOUP

3 medium-sized carrots,  
1 cup boiling water,  
1 pint milk,  
Onion, bay leaf,  
1 tablespoonful flour,  
1 teaspoonful salt,  
1 tablespoonful flour,  
 $\frac{1}{2}$  cup cream.

Slice thinly the carrots. Place them in a stew-pan over the fire in the boiling water. Cook until tender. Heat in a double boiler the milk with one slice of onion and one bay leaf. When the carrots are tender, rub through a colander and remove the onion and bay leaf from the milk and add to the carrots. Braid the flour with a little milk and add to the hot soup, also one teaspoonful of salt. Let cook five minutes. Add the cream, reheat, and serve at once.

## MOCK VEAL LOAF

One cup Minced Protose,  
One tablespoonful celery salt,  
One cup of hot cream,  
One tablespoonful grated onion,  
Three Whole Wheat Wafers,  
One egg.  
Salt to taste.

Mince the Protose and add the onion and celery salt, and finally the rolled crackers, also the hot cream. Beat one egg slightly and add to the ingredients. Stir all together. Turn into bread tin. Sprinkle with cracker crumbs. Brown in a quick oven. Serve with tomato sauce.



Steamed Fruit Pudding

## BANANA AND WALNUT SALAD

Peel a banana and slice it through the center lengthwise. Place one-half of the banana on a lettuce leaf on a salad plate. Cover the banana with one dessertspoonful of mayonnaise dressing and sprinkle with chopped English walnuts .

## STEAMED FRUIT PUDDING

One-fourth cup of strong Caramel Cereal,  
Three-fourths cup of rich, sweet cream,  
Two cups of stale bread crumbs,  
One-half cup of sugar,  
Two tablespoonfuls flour,  
One cup of raisins,  
One-half cup currants,  
Pinch of salt,  
One teaspoonful vanilla extract,  
Whites of six eggs.

Braid the flour with the cream. Add the Caramel Cereal, bread crumbs, raisins, currants, salt and vanilla. Beat the whites of the eggs until stiff and fold into the mixture. Turn into individual molds and steam three hours. Then bake fifteen minutes and turn on a platter. Serve with foamy sauce.



Banana and Walnut Salad

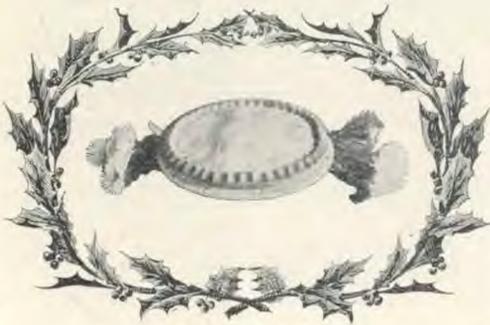
## FOAMY SAUCE

One egg,  
One-fourth cup of sugar,  
Three-fourths cup of milk,  
One-fourth cup of cream,  
A little grated lemon rind.

Beat the egg very thoroughly with the sugar and grated lemon rind. Pour onto this very slowly, stirring constantly to make it smooth, the hot milk and cream.

## VEGETABLE MINCE PIE

Mix together the chopped tart apple, minced Protose, Prune Marmalade, boiled apple juice, raisins, rolled nut meats, Meltose, and the sugar. Cook gently for three hours. If desired, a teaspoonful of pure Olive Oil may be added. A cup of Malted Nuts used in



Vegetable Mince Pie

place of the rolled nuts is an improvement. The quantities are sufficient for five pies.

## ANGEL FOOD CAKE

One cup of egg whites,  
One teaspoonful cream of tartar,  
One and one-fourth cups sugar,  
One scant cup of flour,  
One-third teaspoonful salt,  
One teaspoonful vanilla extract.

Add the salt to the flour and sift four times. Sift the sugar four times also. Beat the whites (which will require ten or eleven eggs) until frothy. Add the Cream of Tartar and continue beating until eggs are stiff. Add the sugar and then fold in the flour. Add the vanilla.



Angel Food Cake

Bake about fifty minutes in an unbuttered angel cake pan. If the cake begins to brown, cover with an oiled paper after it has risen.

## A Vigorous Vegetarian

Professor Meyer, of the University of Cambridge, England, who has for many years been an ardent vegetarian, has recently celebrated his eightieth year. According to his own statement, this is his manner of life: "I always rise at 4 o'clock in the morning. I study all day when my duties do not call me to the chapel or to my professorial chair. I am able to read the smallest print without fatigue to my eyes. My hearing is very acute. I can read in a loud voice five or six hours a day,—an exercise which I consider very helpful."

## A Litany of Thankfulness

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For days of health ; for nights of quiet sleep ; for seasons of bounty and of beauty ; for all earth's contributions to our need through this past year,

Good Lord, we thank thee.

For our country's shelter ; for our homes ; for the joy of faces, and the joy of hearts that love,

Good Lord, we thank thee.

For the power of great examples ; for holy ones who lead us in the ways of life and love,

Good Lord, we thank thee.

For our powers of growth ; for longings to be better and do more ; for ideals that ever rise above our real,

Good Lord, we thank thee.

For opportunities well used,

Good Lord, we thank thee.

For opportunities unused, and even those misused ; for our temptations, and for any victory over sins that close beset us ; for the gladness that abides with loyalty, and the peace for the return.

Good Lord, we thank thee.

For the blessedness of service, and the power to fit ourselves to others' needs,

Good Lord, we thank thee.

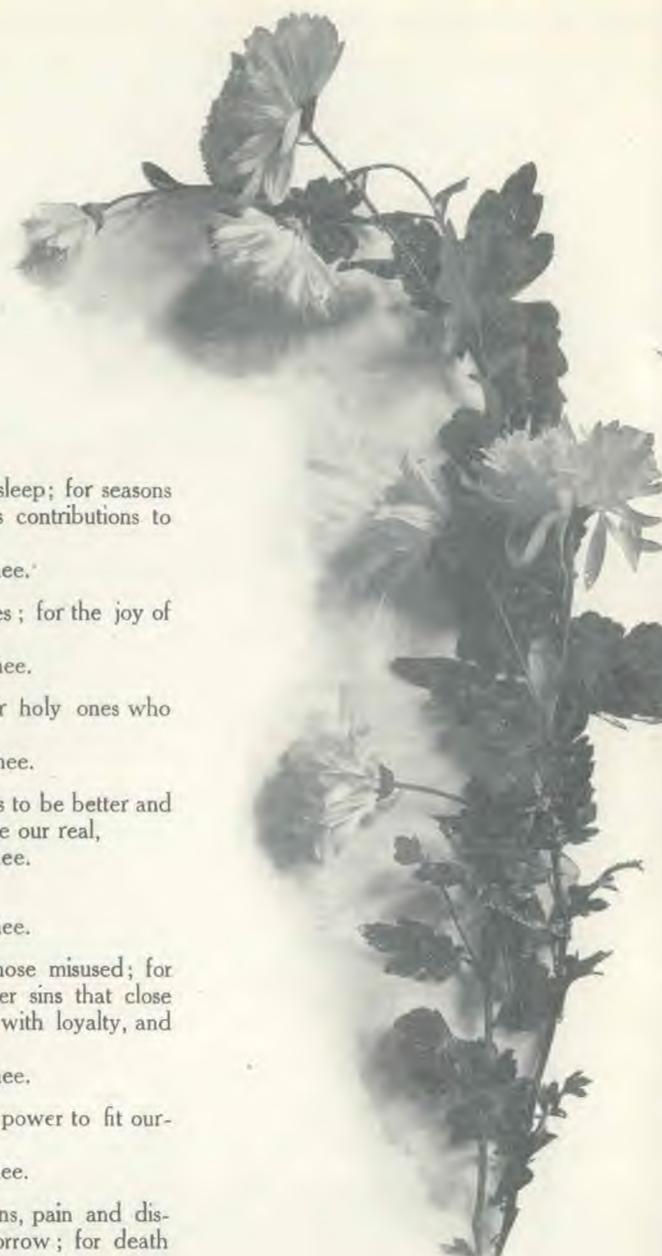
For our necessities to work ; for burdens, pain and disappointments, means of growth ; for sorrow ; for death

Father, we thank thee.

For all that brings us nearer to each other, nearer to ourselves, nearer to thee,

For life we thank thee, O our Father.

—*W. C. Gannett.*





## GLIMPSES FROM THE TRAIN WINDOW

### An Open Letter to the Walking Club and a Final Study of the Trees and the Woodland Growths at the Close of the Year

THE Walking Club began last January to get acquainted with a few of their neighbor trees. As leader of this company I have felt the handicap of absence, but in spirit I have gone on every trip; so I feel well enough acquainted to call you all friends. This shall be a letter, then, for I never should be able to write a scientific article on the train. I left New York an hour ago, and am on my way to a far country, Southern California.

It is noon, and yet the whole landscape burns with the colors of the sunset. Every tree on these hill-slopes along the Lehigh Valley has its canopy dyed gold or scarlet or rich purple. The sumachs line the forest margin like the red blaze on the edge of a prairie fire as I remember that awful spectacle in late summer in Iowa years ago. The sugar maples and sassafras trees vary from gold to red. Dancing birches, graceful elms, stately tulip trees—all bright gold and green. Hickories and ashes are russet and brown, but scarlet oaks and sweet gums set their tops afire, and the gorgeous pepperidge vies

with the dogwoods in beating all the other trees at their own game.

Under all this rapturous riot of color, the dead old earth and the dead grass are ruddy of hue, and the exposed rock faces; the background of contrast is the dark green of hemlocks and masses of the evergreen mountain laurel.

Maunch Chunk was never more beautiful than at this moment with the sun lighting up its tree-covered slopes, and the smiling Lehigh River rounding its dome-like hills.

What the autumnal glory means to us I need not undertake to say. But what does it mean to the trees? The falling of the leaves, what does it mean? It is a habit well established in trees that brave northern winters. Few broad-leaved species dare try to keep their leaves alive. Yet how much of rich tree flesh and blood are in these leaves! The trees take it in before winter comes and store it under the bark from trunk to twig. In empty wood cells this sugary leaf pulp is to be found. The green was still showing along the large veins of hickory and chestnut leaves as I



There is poetry in trees even after they are cut into stovewood

walked to the station early this morning. Before December the process will be completed and the bright pigments in the leaves (which become visible after the withdrawal of the green) will have faded out. I am writing on October 22, and the trees are at the height of their busy season, "putting up" their precious leaf pulp. A joint is formed between leaf and twig, and the leaf lets go when it has given up its pulp to the twig for storage. Its brilliant colors are from the chemical dissolution of mineral deposits brought up from the earth by the sap currents. They have been in the way of the leaf's work so it is well for the tree to cast its worn-out leaves and start with fresh, perfect ones in the spring. Then all this stored nutriment is food for the growing leafy twigs. Because leaf pulp is stored around the buds, they thrust forth leafy shoots in an incredibly short time when

spring rains and sunshine supply the necessary warmth and moisture.

Frost does not make the leaves turn to bright colors. But in the season of frost the trees ripen and cast their leaves; so people have considered them as cause and effect. Bright foliage occurs with or without frost. It may be modified by the changes in temperature.

Trees hide rare secrets under their bark. It is very expressive—tree bark—when one comes to study it, to finger it, to smell it, and to note the individuality of each species. The life of the tree is just between wood and bark. Girdle a tree, and it dies. The sun dries its moist cells, and the waterways between leaves and roots are destroyed. No more crude sap can go up; no more rich sap can come down.

Look at the trunk of a balsam fir. In addition to the ordinary uses of bark, this secretes a clear, fragrant balm



called "Canada balsam." No laboratory is equipped without it. Medicines contain it. The same heartening, clean fragrance exhales from the bruised leaves which last indefinitely in balsam pillows. Children and women of northern woods gather the limpid flow from the blisters on the bark of these fir trees. It is readily saleable at good prices.

There is poetry in trees in their autumnal glory, and even in their last estate—the woodpile. The spirit of this last picture is essentially practical. The energy that went into those growing trees will be liberated in the hearth-fires of a hundred homes. The hickory back-log burns long, and gives out a clear and intense heat. The willow crackles, gives out its heat, and goes out. Think

how long the hickory tree took to grow, and how brief is the life of the willow. Seasoned wood and green wood of the same kind—how differently they burn, and why?

This letter is too long. May the Walking Club keep up its walks. May the trees at all seasons speak to each a language he can understand, whose meaning deepens as knowledge increases. There is no more stimulating nor inspiring influence about us than that we gain through fellowship with trees.

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I've decided not to worry any  
more;  
An' I'm livin' jest as easy as  
before;  
What's the use of fume and  
flurry?  
What's the use to allers worry?  
I've decided not to worry any  
more.

Jest go 'long an' allers mind your own affairs;  
Look for laughter an' for joy, an' not for tears;  
Keep a-grubbin' an' a-hoein';  
That'll stop the weeds a-growin';  
Just determine not to worry any more.

What's the use to lie awake an' rack your brain  
Jest because the crops are thirstin' for a rain?  
It'll come if it's a-comin',  
An' it's boun' to come a-hummin'  
In the same ol' way—don't worry any more.

When you come to cross a hill that's hard to  
climb,  
Take it easy; rock along an' take your time;  
Try to keep the welkin' ringin'  
With your shoutin' an' your singin',  
An' you'll clean fergit to worry any more.

*Lawrence Porcher Hext*

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SAID a facetious doctor in turning a patient over to another: "I send you a fat goose. I've plucked him well, but he'll stand more plucking."



THE RED-BACKED SHRIKE'S DOMICILE

This bird makes no attempt to conceal its nest, and usually places it in some bush or hedge

# A Word About Some of Our Resident Birds

BY BELLE M. PERRY

WE have made the circuit of the year, and come back where we started, to winter and winter birds, or, to be more accurate, to resident birds that are most familiar to us in winter. While we are enjoying the pretty pictures the woodpeckers and nuthatches make while partaking of our, I trust, unfailing hospitality of suet or meat bones and cracked nuts, let us make ourselves so well acquainted with their good qualities and wonderful economic value as destroyers of tree enemies that we will be able to plead their cause intelligently and justly when we hear them falsely accused by those who mistake the purpose of their tireless hunting and pecking and boring under tree bark the year round for insects and insect eggs and larvæ.

I heard a man who is making the tree and forest interests and needs of the country his life work, say not long ago that we owe to the birds our ability to have any trees at all in this insect-filled world, and no one who knows the facts will dispute his statement. Nor would we have any vegetation at all except for our friends, the birds. So it behooves us to speak out for them, in season and out of season, though they speak strongly for themselves to those who have ears to hear and eyes to see. But this is not at present an observing world. As the artist has had to paint the common beauties and place them in art galleries, where the world will go to see, in order to make people appreciate the beauty, everywhere, of tree and sky and sunset, so the nature student and bird lover have transferred to books the bird stories that are to be read on trees and in shrubbery in every

locality if we will learn to look for them.

Our tree man gave the woodpeckers and nuthatches prominent place among the bird saviors of our forests. But despite this fact there are still many people who have no conception of this service and who are ready to attribute the energy and industry of woodpeckers as insect hunters to mischievous intent on the trees themselves. Indeed, I heard a very intelligent woman, who is a great lover of trees, but who realizes next to nothing of the relation the birds bear to them (and she is a type of a large class of fairly intelligent people), tell how her husband had been obliged to destroy many of them in order to preserve some much-prized trees. Thinking, of course, that she referred to the yellow-bellied sapsuckers, I asked her to describe them, and am convinced that they were the hairy woodpecker and entirely innocent of the offense with which they were charged. Every friend of the birds should know that there is but one woodpecker that can justly be accused of harming trees, and I think many ornithologists believe that even the yellow-bellied sapsucker does so much good as an insect destroyer that it is a question if he is not much more of a friend to the trees than an enemy. Mr. Chester A. Reed says in his pocket Bird Guide, "I very much doubt if they do any appreciable damage in this manner. I have watched a great many of them in the spring and fall, and have clearly seen that they were feeding upon insects in the same way as the downy woodpeckers.

It is interesting to observe the difference between the claws of woodpeck-

ers and those of the robin, bluebird, and other perching birds. You will have good opportunity to do this while they are feeding on the suet this winter. Note that instead of the three long toes in front and the shorter one at the back, there are two long toes in front and two at the back, each provided with strong nails. This makes it easy for them to grasp the bark of tree trunks and cling while they work. Their peculiar tails, which I told you about last winter, and which you have no doubt observed for yourself, hug the bark and form a good brace to strengthen their hold. What funny birds they are, with their high shoulders and long waists! By a fine adjustment of nature, they serve the world while they are serving themselves. Their way of working has given them awkward, overdeveloped shoulders and long waists, but when we know and love them for what they are to us, even these high shoulders and long waists will have a beauty of their own, as homely people, given to good deeds, always do, to people who know their worth.

I wonder if you have thought about where the woodpeckers sleep o' nights, with their feet and claws unfitted to perching purposes. They have the snugest little winter homes, either prepared by them on purpose for a winter shelter or adapted to that use without the extra work of making it, by using old nests. They are safe from winter wind and storm, and really suffer less from the elements than most of our other winter birds. The winter storm which coats the trees with ice causes them greatest trouble. They could easily peck away the ice for food if they had a place to fasten their claws. I have seen them slide back and have any amount of trouble on such days in their efforts to get suet, and have more than

once scraped or thawed it off for them. So let us not forget the needs and difficulties of our birds at such times, and have especial care about plenty of accessible food for them.

If you have an opera glass, as I hope you have, for it adds so much to the pleasure of bird study, you can readily discover how the downy and hairy woodpeckers get their names, if you can get a good view of their backs while they are feeding. Each of these birds has a strip of white down the center of the back, between the wings. In the downy this consists of soft down, and in the hairy it is more like long coarse hair. The downy is much the smaller bird, being scarce larger than a mouse. It is a dear, friendly little sprite and easily becomes quite tame.

Let us learn to know the common varieties of woodpecker, of which there are a half dozen or more, and to befriend them against the charges of those who have mistaken ideas about them. Let us do more than this and speak their just praises ardently and often and do our little part in the campaign of education which is so much needed regarding our bird friends.

This closes our bird talks for the present, but bird interests must go on and on until a friendship with the birds becomes the common experience, and an intelligent and loving study of their ways, with a view to increasing their numbers everywhere, finds its way into the curriculum of the public schools.

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"Dust are all the hands that wrought;  
Books are sepulchers of thought;  
And I answer, 'Tho' it be,  
Why should that discomfort me?"

No endeavor is in vain;  
Its reward is in the doing,  
And the rapture of pursuing  
Is the prize, the vanquished gain!"

—Longfellow.



## FACTS ABOUT THE THYROID GLAND

### Interesting and Instructive Experiments Regarding this Structure Thrown a Curious Side-Light upon the Use of Meat

BY J. H. KELLOGG, M. D.

THE thyroid gland is an interesting structure, which in the last few years had been the object of much study among physicians, for the purpose of determining its function in the body. Formerly it was considered as one of the so-called ductless glands, the function of which was wholly a mystery.

These glands were experimentally removed from dogs by one physiologist, who reported that the dogs could not live without them; they all died in a short time. Another investigator operated in the same way upon a lot of rabbits and reported that the other physiologist was entirely mistaken; nearly all of his rabbits survived and apparently got along just as well without the thyroid gland as they did with it. Many other physiologists repeated the experiment; the dogs operated upon died, the rabbits lived. At length one investigator discovered that if he fed his dogs on the diet that he gave the rabbits, the dogs did not die. When he fed his dogs on bread and milk they survived; when he fed them on meat they died.

These experiments are of great interest, showing as they do the significance of the use of meat. Why did the dogs

deprived of the thyroid gland die when they ate meat? Because the meat contained poison in combating which the thyroid gland was in a way concerned. But how? That was not at first understood, but within the last three years most interesting experiments have been worked out which have quite cleared up the mystery.

It has been found that the suprarenal capsules—two little glands that fit over the tips of the kidneys—or the adrenals, as they are sometimes called, produce a certain substance which, when circulated in the blood, helps to destroy the tissue wastes and poisons which are continually resulting from the work of the body. These poisons are destroyed by the liver and eliminated through the kidneys and the skin. In order that they should be satisfactorily destroyed it is necessary that the adrenals should produce a certain substance, adrenalin, which was first separated in a pure state by a Japanese chemist and is now used in medicine. It has a stimulating effect upon the blood vessels, causing them to contract. This substance produced by the suprarenal capsules is necessary to enable the body to burn up its waste

materials. It is a sort of smoke-consumer of the body, we may say.

But it has been found that the thyroid gland is concerned in the production of this substance, adrenalin, by the suprarenal capsules. The thyroid gland produces a substance which being conveyed to these capsules by the circulation of the blood, enables them to produce adrenalin. It is something as it is in the manufacture of paper. In the North of Michigan, where there is plenty of spruce and sycamore, there are pulp factories, which convert the woody fibre into pulp and then ship the pulp in various forms to the paper mills. The paper mills manufacture it into paper, which is circulated all over the world. This illustrates the process that goes on in the body. The thyroid gland makes a substance which is carried to the suprarenal capsules, where it is converted into adrenalin.

The dog whose thyroid glands were removed was no longer able to make adrenalin because the necessary material was not furnished to the suprarenal tissues. When, therefore, the dog added to the poisons produced in its own body those contained in the flesh of another animal, there was such an accumulation of poison as to kill the animal so crippled. But when the dog lived upon a non-flesh diet that was free from waste matters, it continued in health, and was able to live quite comfortably without the thyroid gland.

From these facts we may draw a conclusive argument in favor of a non-flesh diet. If the dog who has lost his thyroid gland is safe when he lives on a bread and milk diet, there is no conclusion that can be drawn except that the dog takes from the meat something injurious which he does not get from bread and milk. If the flesh diet is so great a damage to the dog that is

crippled by the loss of his thyroid gland, it must to some degree be injurious to the man who still has his thyroid gland. It is necessary that the body should protect itself from the pernicious effects of meat, and when it is crippled by the loss of the thyroid gland it is unable to make this defense. The man who discards the use of meat has that much less burden imposed upon his body. The defensive forces of the body are less taxed, for the body is not forced to protect itself from the pernicious substances derived from the flesh diet. What advantage is there in this? The man who does not eat meat is able more perfectly to purify his blood, to destroy the waste products formed in his own body, for he does not add the task of destroying wastes from the body of another animal.

Suppose, for example, that a man who weighs 150 pounds eats a pound of meat each day. How long will it be before he will eat his own weight? In one year he will eat his own weight two and a half times. At least twice a year he will be adding to his body all the poisons that were contained in the body of another animal, and this body will be compelled to destroy that much more poison. Put it another way: A man who weighs 150 pounds eats a pound and a half of meat per day. Many a man eats more than that. This is just one per cent of his weight. His body is required to destroy one per cent more of poisonous matters than it ought to destroy. We may think that does not amount to much, but the case of the dog shows that it does amount to something. The addition of poison contained in his meat diet was enough to kill the dog which had lost his thyroid gland, which shows that the poisons present in meat are sufficient to produce distinct damage.

# Clothing for the Sick and Helpless

BY KATE LINDSAY, M. D.

THE subject of clothing is one of interest to the well, especially how to be clothed according to the latest mandates of Dame Fashion; but to the sick and helpless, who are unable to display fashionable robes in an attractive style, the fashioning of garments comes to be regarded more from the side of comfort.

Most sleeping robes are totally unsuitable for sick-bed wear. Not only is the ordinary nightdress unhandy, being made long and full, with the opening only part of the way down the front, but it is exceedingly disagreeable to the patient, who can not turn in bed without being twisted up in the numerous folds of the voluminous garment, whose wrinkles and seams and twists are a source of great annoyance. It is also so difficult to change, that the process of taking off the soiled garment and replacing it with a clean one, becomes a dread to both patient and nurse; especially if the patient is heavy, helpless, or has some painful disorder, as rheumatism, or has undergone a surgical operation. The ordinary nightgown is also a source of much annoyance in giving water treatment, as it is liable to become soiled and wet. It usually has to be removed entirely.

The sick-robe should be made wide and roomy enough to allow of being easily taken off, the arms especially being freed without inconvenience. Most nightgowns, especially those with yokes, are too narrow between the shoulders, making the process of getting in the second arm painful and exhausting to the feeble patient, besides wasting the time and strength and taxing the patience of the nurse. Absolute quiet is essential in

many cases, as of internal hemorrhage from the bowels, lungs, or other internal organs; yet the patient must be kept clean, and the sick-robe changed frequently. For such cases the sick-robe is a bed-gown made open in both back and front, the opening in the back being a little to one side of the spine. The buttons should be of thin, flat pearl, to avoid the ridge for the patient to rest on while lying on the back. This garment can be put on and removed very easily, without moving the patient more than to raise her up to get the garment well under the shoulders,—a much more convenient process than to be obliged to push the whole upper half of the nightdress under the patient and drag it through. The upper half can then be very easily slipped on to the upper arm. With the patient lying on her back, slip on the sleeves, and straighten down the gown, pushing the back part of the left side under the body as far as possible; then turn the patient on the left side, and pull on the garment under her gently, so that the two sides will meet in the back, and button the front and back. All that is needed to remove the garment is to unbutton the front and back and slip off each half separately.

When giving treatment to the spine, unbutton the gown up the back; when to the abdomen, unbutton the front. This will keep the arms covered, and prevent chilling them, which is sometimes very important, especially in respiratory disorders, as pneumonia, where chilling of the upper extremities will increase the internal congestion.

The material for these nightdresses for the sick should be soft, easily laundered, and never starched, as any stiff-

ness is very uncomfortable to the sensitive skin of the patient. Soft, loosely woven cotton goods, as fine, thin, bleached cotton flannel, or the fine, soft grades of outing flannel are very good material for these gowns. Old sheets, old soft white skirts, or the bottom parts of old nightgowns may be made over into very useful garments for the sick. It would be a wise provision for every family to keep a supply of these garments on hand, made up in different sizes, ready to use whenever a member of the family becomes ill. A little labor with the sewing-machine and a few buttons is all that is required to make these garments, provided old garments are used.

In fever cases, the sick-ropes require very frequent changing and disinfecting, and hence not much cloth and no ornamentation should be used. It is sometimes necessary to have the sleeves as well as the front and back made so as to button up, and they may be buttoned to the nightdress at the shoulders if necessary. This is especially useful in cases of a broken arm which can not be moved, or where the arm joints are inflamed, as in rheumatism.

Flannel is needed in some cases where the skin is torpid and bloodless, or the patient has cold night sweats and a tendency to chill easily, and also for those who are advanced in years. Flannel is a material more useful for the chronic invalid than for acute attacks of fever, and should never be worn by those who have urticaria or any other skin disease, as it often causes a great deal of irritation to the skin, preventing sleep, and making the patient restless and uneasy. It may even destroy the appetite, or arouse fever in some cases, so intense is the irritation. Children and delirious and insane patients suffer most from this cause, being unable to help them-

selves or tell what is the matter. Whenever a patient who can not complain is uneasy, always try to find the cause; if she is wearing flannel, this may always be suspected as the cause of the irritation.

Two sets of flannel should be worn by the invalid, one at night, and the other during the day. If it is a case of fever or any disease that is contagious, both garments should be washed and disinfected daily. If the gowns are short and plainly made, this is very easily done.

When the patient begins to recover she needs some loose warm garments, easily put on, warm bed-shoes and stockings, and a warm flannel wrapper with a loose sacque. These should be made so as to be easily put on and taken off, and they should be comfortable to lie down in. As little cloth should be used in making them as possible, to avoid folds. The material should be of light, open texture. A convalescing patient is sometimes overtaxed and kept in bed by the heavy clothing, inconveniently made, and the heavy weight makes walking very difficult.

When a patient is in bed, the temperature of the room should be from 65° to 75° F. When she is able to sit up, it should be 70° or 72°. This temperature will not require so much wrapping up and will give the patient more freedom. When the patient begins to go out, warm underwear should be worn, and also a warm, loose-textured outside wrap. In our changeable climate, where the weather is liable to change in twenty-four hours, changes in garments should be made to suit the weather. Persons who suffer from chronic diseases accompanied by night sweats should always be provided with an extra garment for the night.



RIGHT AND WRONG WAYS OF DOING THINGS



## A Finland Boy's Bath

WHEN the boys in Finland want to take a bath, this is the way they do it:—

In the first place, it is very, very cold in Finland, and the bathroom is not in the house at all, but in a building quite separate.

It is a round building, about the size of an ordinary room. There are no windows, so light and air can only come in when the door is open.

Inside, the benches are built all along the wall, and in the center is a great pile of loose stones. Early in the morning wood is brought in, and a great vessel standing near the stones is filled with water.

Then some one cuts ever so many birch switches, and these are placed on the floor of the bath-house. Next, the fire is made under the stones, and it burns all the morning. In the afternoon, when the stones are very hot, the fire is put out, the place is swept clean and all is ready.

The boys undress in their houses and run to the bath-house. As it is generally thirty degrees below zero, you may be sure they do it in double-quick time.

As soon as they are in the bath-house, they shut the door tight and begin to throw water on the hot stones. This, of course, makes the steam rise. More water is thrown on and there is more steam, until the place is quite full.

And now comes the part that I think you boys would not like at all. Each boy takes a birch switch and falls to whipping his companions. This is to make the blood circulate, and, though it is a real hard whipping, no one objects, but all think it great fun. At last, looking like a lot of boiled lobsters, they all rush out, have a roll in the snow and make for home.—*Selected.*



## SOME POINTS ABOUT SCARLET FEVER

### How to Prevent Kidney Complications—Important Facts as to the Necessary Diet and Treatment

IN scarlet fever the condition of the skin is such as to almost wholly suspend the function of this important depurgative organ. At the same time there is produced in the body through the activity of the specific organism which gives rise to this disease a very deadly toxin. The weakened condition of the skin throws the work of elimination of this poison almost wholly upon the kidneys. The consequence is that in no small proportion of the cases the kidneys are overwhelmed by the work required of them, and the result is acute nephritis. The damage done to the kidney structure by an acute inflammation during an attack of scarlet fever unquestionably lays the foundation for serious and often chronic kidney disease in later years. Every practitioner called upon to treat a case of scarlet fever should at the very outset employ measures by which the kidney complications may be avoided. The necessary measures of prevention are very simple and easy of application. If the following named measures are adopted from the onset of the disease, the occurrence of acute nephritis may be almost certainly prevented.

1. See that the patient takes an abundance of water in one form or another. Buttermilk should be freely given; also fruit juices of various sorts. The quantity of liquid taken in twenty-four hours should

vary, of course, with the age of the child, but it should aggregate at least one pint for every ten pounds of weight. Liquids should be given the child every few minutes. If the child will not swallow a sufficient quantity of liquid, then twice the quantity named should be administered by enema. The temperature of the enema should be about 100 degrees Fahrenheit, so as to encourage retention. The water should be allowed to pass into the bowel slowly, to not excite peristalsis.

2. Great care should be exercised with the diet. Meats, meat broths, gelatin, beef juice, extracts of meat, Bovinine, and all similar preparations should be carefully excluded from the dietary. Only liquid foods, such as gruels and fruit juices, should be given during the first two or three days. Later, spinach, potatoes, one or two yolks of eggs per diem, rice, zwieback, granola and other cereal preparations may be used in moderate quantity. Care should be taken to avoid excess in feeding.

3. The patient should be placed in a full bath at a temperature five or six degrees below that of the body at least half an hour two or three times a day. If the child is comfortable in the tub, the duration of the bath may be increased to an hour or an hour and a half three times a day. The benefits of the bath in lowering

temperature, relieving irritation, promoting sleep, and in preventing kidney complications can scarcely be overestimated.

4. A moist abdominal bandage should be kept around the trunk all the time the patient is not in the bath. The bandage should consist of a towel wrung quite dry out of cold water wrapped snugly about the body and covered with one thickness of flannel. The slow evaporation of the water will serve to lower the patient's temperature and to permit activity of the skin.

If the urine is very scant in spite of the faithful application of the measures suggested, a hot blanket pack may be administered. The duration of the pack should be fifteen or twenty minutes. The purpose is to induce sweating if possible. A hot pack may be employed once or twice a day. When the temperature is high, the hot pack should be followed by a bath at 92 degrees for half an hour, or a wet sheet pack.

When the above named measures are employed faithfully, kidney complications rarely or never occur.

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## A JAPANESE SUGGESTION

### Method of Sterilizing Water Adopted in Russian War of Great Value

The health officers of the Japanese army have set a new model for the world in the low death rate of the soldiers under their care from disease and death other than from wounds received in battle. The general experience of large armies has been that from four to ten times as many men died from disease as from injuries received in actual combat with the enemy.

The Japanese soldiers in their war with Russia suffered scarcely at all from disease. One of the chief causes of this immunity was unquestionably the great care taken to provide pure, wholesome drinking water for the soldiers. This was accomplished by means of portable iron boilers heated by charcoal. These were carried right

along with the troops, and any one who filled a water bottle from any other source than the sterilizing tanks was severely punished.

This method of securing pure water is so simple and practical it will be very strange if it is not adopted by other civilized countries. It is one which should be utilized wherever large numbers of people are temporarily gathered together as at Chautauquas, army encampments, camp-meetings, and similar assemblies.

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## MORTALITY FROM ALCOHOL

### British and Swiss Reports Afford Startling Figures Regarding Deaths due to this Evil

The registrar-general reports for England and Wales, especially during the years from 1881 to 1900, show that 110,215 died from three diseases directly due to alcohol; namely, chronic alcoholism, delirium tremens, and cirrhosis of the liver, which is at the rate of 188.45 persons per million. Most of the deaths occurred between the ages of twenty-five and fifty-five years. There was a marked increase in the mortality during the twenty years in the case of the three diseases named, especially from chronic alcoholism. This report takes no account of the deaths from various maladies in the production of which alcohol plays a prominent relation, especially Bright's disease, disease of the heart and blood vessels, apoplexy, paralysis, insanity, pneumonia, and tuberculosis.

Recently statistical reports from the largest Swiss cities have taken account of the influence of alcohol as the contributory as well as the direct cause of death. These reports show that ten per cent of the men who die over twenty years of age owe their death either directly or indirectly to alcohol. Alcohol is less used in Switzerland than in many other countries, and consequently the magnitude of this evil is doubtless, in many instances, far greater than is shown

by the Swiss reports. The evil character of alcohol has certainly come to be so fully apparent, there should no longer be any question in the mind of any intelligent man as to whether or not his whole influence should be based in opposition to this most potent cause of human misery, degeneration, and death.

WHAT happens when a person takes cold is that the normal excretion of waste matters is checked, and these poisons accumulate in the body. If something suddenly chokes up the chimney of a house, the stove smokes, and the smoke accumulates. It is just so with the body. All fevers come from this accumulation of waste matters, or auto-intoxication. If one has just taken cold and wishes to get over it quickly, the best thing to do is to take a hot bath followed by a short cold bath, and go to bed and remain there for a day or two if necessary. Care should be taken to avoid exposure, as one is then very susceptible and will easily take more cold.

It should be known to every one that weakness or irregularity of the action of the heart may be wonderfully relieved by the application of an ice-bag over the heart, or of a towel wrung out of cold water. For an irregular heart, a cold compress over the heart for half an hour three times a day will do a great deal of good. Gastric disturbances or indigestion may be the cause of the irregularity. In that case the cause must be removed by regulation of the diet. Careful chewing of every morsel of food taken will perhaps do more good in such a case than anything else.

## Christian Scientist's Reply

JUST as we were going to press with the October number, we received the following communication from Mr. W. S. Mattox, of the Publication Committee of the First Church of Christ Scientist, Boston, Mass.,

Headquarters of the Christian Scientist cult:—

BOSTON, MASS.

Editor "Good Health":—

A writer in your issue of August, discussing Christian Science, points out what he considers to be the "weak links in the Christian Science chain." He first tells what he thinks are "strong links," and among these are the following propositions: "God is good. God made all things. A good God could make no evil thing." To these statements the writer agrees, saying, they are "all true," that they "can not be upset, for they are eternal verities," and in the same breath he calls the argument "a specious error." It is a little bewildering to follow such extraordinary reasoning, but the trouble seems to be in a confusion of terms. After admitting it to be true that a "good God could make no evil thing," it is difficult to see how one could escape the conclusion that "evil does not exist," since the correlative proposition has already been admitted, namely, that God is the only Creator.

Yet this is what the writer in GOOD HEALTH tries to do, and the burden of his argument rests upon a satisfactory definition of the word "thing." He says, "Evil is not a thing. There are evil things; evil in general is not a thing, but wrong relation or relations of good things. It is the wrong use or application of good things that creates evil. God did not do this. Man creates evil, God does not. God made all things, but left man to create good or bad relations in the right or wrong use of good things if he chose to do so."

It is evident your contributor has given a very limited definition to the word "thing," and, after assuming that his definition was identical with that of Christian Science, he proceeds to argue against his own conceptions. He supposes a "thing" to be a "material thing," and he confines his idea of "thing" entirely to matter.

Taking this materialistic and limited view, it is easy to see how he has become entangled in his reasoning. He says, in effect, "God made all things: things being material, that is equivalent to saying that God made all material things; but evil is not a material thing, it is the wrong relation of good things, hence, though God did make all things, and though He is good, nevertheless, evil does exist, as

a mental condition, rather than as a material entity."

Christian Science takes issue with this method of argument, by giving a more comprehensive definition of "thing." By this term, we indicate not only inanimate, material objects, but all created being. In the broadest sense, a thing is an event, an occurrence, a deed, an act or action, as well as a piece of matter. So then, when Christian Science takes as its fundamental statements the Scriptural declarations that God made all that is; that God is good, and pronounced all that He had created very good; hence, all that really has being is good, hence there is no evil; when it takes its stand thus, it means not only that God did not create an evil material thing, but that He did not create an evil mental thing or state. It makes no difference whether we split hairs over the constitution of a thing, if we admit that it has entity or being. If it exists, as matter or as mind, as a material object or only as a relation of material objects or as a state of thought, somebody or something must have created it. We start with the basic proposition that there is one infinite Creator who has made all. Then, whether we decide that evil is something you can perceive through the physical senses, that is, something you can measure with a yardstick, or taste, or smell, or feel; or whether we decide that it is simply a "wrong relation," in any case if it exists God must have made it. But we also start with the fundamental proposition that God is good and has made all like himself. Here we find ourselves in a quandary unless we conclude, with Christian Science, that evil does not exist.

Whether evil is a state of matter or a state of mind, makes very little difference in our final conclusions, for if it exists at all, in any form, we are obliged to affirm that God is its author. Even were we to admit that all there is to evil is a "wrong use or application of good things," we must somehow account for the initial impulse to pervert the established order of creation. Where did that propensity or ability come from? Who is the creator or instigator? If the original Bible statement is true, and God is the only Creator, and there really does exist a capacity to change a good relation to a bad relation, God must have endowed man with such a capacity; therefore, he literally created evil. But God is good, and our critic acknowledges that he could "make no evil thing." Turn as

we will, or evade as we sometimes do, we are forced eventually to the radical conclusions of Christian Science that there is no evil, since God, Good, is all in all.

For God to permit is for God to create. It does not help us at all to say that he did not himself directly bring evil conditions or evil propensities into being, but that he permits finite, mortal man to do or be evil, if he so chooses. Such an argument indicates a failure to apprehend the meaning of the word "infinite." How could God be infinite Creator and yet allow a part of His creation to originate something which he could not make or preferred not to make? Our critic says, "Man creates evil." Then he really does not believe, as he claims to do, that God is the only Creator, for he can not be the "only" Creator if "man creates evil."

It is generally admitted that sickness is an evil. At any rate, the majority of the human family act very much as though they believed it was not good, by trying to get rid of it when they have it. It makes no difference to the sick man whether disease is a discordant state of matter, or a disarranged relationship, if he has either the one or the other, he wants to be cured.

Again, it makes no difference to him whether he is told that God did not make diseased matter, but that he permits man to so disarrange the harmonious relations of constituted entities that he makes himself sick. The one painful "thing" which he wants eliminated from his experience is disease, no matter how his philosophic friends may account for it, no matter what tricks of speech or combinations of words may be employed to account for it. This is the only important and essential consideration for the sick man: "Is sickness an effect? Has it a creator? It makes no difference whether the effect is discovered to be not material, but mental, nor yet whether its author is alleged to be, not God, but man. If it *is*, if it has being, entity, existence, then the questions as to its composition and authorship become minor considerations.

Christian Science is more logical and more consistent than its critics, because it adheres to its premises, and its conclusions, though startling and radical, are in strict conformity to its original propositions. It heals sickness and reforms the sinful, not by arguing for the existence of evil, but by denying it all being, on the basis that God is what the Scriptures declare him to be—all in all.

WILLARD S. MATTOX.

The points which our Christian Scientist attempts to make in reply to our criticisms are, first, we are bewildered; second, we do not allow a sufficiently broad definition for the word "thing;" third, we insist on maintaining the existence of evil, whereas the Christian Scientist proposes to combat evil by denying its existence.

We are glad to see that our Christian Scientist friends recognize the necessity of defending their position. We have no doubt of the absolute sincerity of a multitude, perhaps of all, those who call themselves Christian Scientists, and we desire to be fair and candid in our criticisms and in all our dealing with this question; but we feel sure that any one who has read the article in the August number will agree that Mr. Mattox, in the beginning of his reply, has adopted a method to which the politician often resorts when finding himself unable to meet the arguments of his opponent, by vehemently charging him with being bewildered, confused, illogical, etc. We shall be glad if Mr. Mattox will point out specifically wherein we are bewildered.

As stated in the first article, we agree that Christian Science is right when it says that in the beginning God created all things; that God is good; that a good God could create no evil thing, hence that God never did create any evil thing. Thus far all intelligent Christian people must agree. But the next proposition which the Christian Scientist makes, and upon which he bases his entire teaching, the peg upon which his whole movement hangs, viz., "hence evil does not exist," as we pointed out in our former article, is an unwarrantable conclusion, not justified by the premises and not in harmony with the facts. Here is where the Christian Scientist becomes bewildered. If he can be shown to be wrong in this position, his whole system of doctrine, if it may be called so, collapses. This is the vital point.

In our article in the August number we pointed out the fact that the Christian Scientist has fallen into error by calling evil a "thing," whereas it is not a thing. Mr. Mattox acknowledges that we are right in

this, unless greater latitude is given to the definition of the word "thing," and insists that we shall give it a Christian Science definition. In this Mr. Mattox has made a fatal admission which at once exposes the falsity of Christian Science teaching. He confesses that Eddyism is based upon a special definition of the word "thing,"—a pure assumption, a definition which no lexicographer gives it and which will not bear a moment's careful scrutiny.

The Century Dictionary gives the word "thing" the following definitions:—

1. Any separable or distinguishable object or thought; whatever exists or is conceived to exist as a separate entity.
2. An object without life as distinguished from a living being; any inanimate substance.
3. An object, appearance, or existence not known or characterized by a more definite name.
4. Any object viewed disparagingly or as diminutive.
5. A matter or circumstance. An affair, a transaction, or doing; a particular object, event, or circumstance.
6. Plural: Personal belongings.
7. A substance or essence in which the marks of properties or objects inhere; the components or essential elements, forces, and laws of the objective universe, as "Right is ground in the nature of things."
8. A subject or property or dominion as distinguished from a person, etc.

It is clear from the above definitions that the essential concept represented in the word "thing" is that of object or entity. There are material things and immaterial things, but the Christian Scientist insists that there are still **other things** which are neither material nor immaterial, but mere properties or qualities of things. We know of no lexicon which warrants any such use of the word "thing."

The intelligent reader will readily see the fallacy here. The Christian Scientist not finding the word "thing" large enough to suit his purpose, proceeds at once to make an addition to its meaning, so as to

make it include not only immaterial as well as material things, entities of every description, but also that which no lexicon designates by the term "thing."

To illustrate, an apple is a thing. The sweetness or sourness, the ripeness or greenness, the hardness or wholesomeness, the various other properties which may pertain to the apple,—these are not things, but the various qualities of a thing. The singing of a bird may be in a certain sense called a thing, but the sweetness or beauty of the song is not a thing but a quality,—a property of a thing.

It would seem that Mrs. Eddy, not content with having introduced a new religion which agrees with no other and is subversive of all others, has also undertaken to make a new dictionary. The Christian Scientist does not make use of the English language as it is commonly written or spoken, but speaks a language of his own. In fairness to the public, Christian Scientist writers should either issue a lexicon, or else publish a glossary in their works, so that one may be able to comprehend their meaning if it can be comprehended.

We find our Christian Scientist, or Mrs. Eddy, exhibiting most astonishing agility in literary juggling. The Bible is appealed to for authority for the proposition, "In the beginning God created all things." The writers of the Bible used the word "thing" in its ordinary sense, as defined in the dictionary. There is nowhere in the Bible any statement which warrants the belief that God made either all existences or all things which now exist. Qualities exist not as things, but as properties. Evil is not a thing but a property. Goodness is likewise a property, not a thing. God made the first tree, and has made all the trees which have existed since. He is the Creator of every tree as well as of all other living things. Here is a saloon constructed out of lumber made from trees that God made. God made the trees, but not the saloon. Some one has said, "God made the country and man made the city." This is literally true. The marble, the granite, the clay, the iron, the wood which are used in the construction of the buildings which

compose our cities great and small, are all the handiwork of God; but the hand of man has fashioned these various materials into the structures which line our city streets. God made the men who constructed the tower of Babel, and the stones out of which it was made, but men made the tower. God never created any evil thing. God is the source of all life, of all energy, of all creative power, but in order that man may be God-like, he has given him limited creative powers which he may use rightly or wrongly, beneficently or destructively, as he will. In no other way could man develop character through the exercise of will, through freedom to choose the evil or the good. It is this power to create relationships and to put things to good or bad uses, which makes man a responsible being. The Christian Scientist, in denying the existence of evil, relieves man of all responsibility for his acts. Man commits a sin,—a theft, or murder, or any crime. He has only to deny it to be free from it and all its consequences. According to Christian Science philosophy, the duty of the judge in such a case would be not to sentence the man to imprisonment or any punishment, but make him hold up his hand and swear that the crime with which he was charged does not exist.

The application of Christian Science principles to practical every-day affairs of life would subvert everything. Sanitary laws would be abolished, quarantine and public health regulations of all sorts would be discarded as useless. Why quarantine against yellow fever, which exists only as a bad idea? It can do us no possible harm if we refuse to recognize it. That is, if we insist that it does not exist! Why spend millions in obtaining pure water supplies when the only thing needful for protection against typhoid fever is to deny the existence of typhoid fever germs?

#### CHRISTIAN SCIENCE: A DEFINITION

Christian Science is the name of a hybrid cult masquerading under the garb of philosophy, but without solid foundation for its premises or logical consistency in its conclusions.

This so-called philosophy is an absurd attempt to graft upon the virile stem of Christianity the effete and impotent philosophies of the heathen world. The result is a medley of fantastic concepts which are neither religious nor philosophical, which are at variance with the plain teaching of the Scriptures, obnoxious to common sense, and more in accord with the canons of the ancient religious cults whose mysticisms it imitates.

J. H. K.

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## JACKSON A VEGETARIAN

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### Masterly Defense of New Orleans in the War of 1812 Made on a "Rice Diet"

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ONE of the most interesting characters in the military history of this country is General Andrew Jackson, whose masterly defense of New Orleans in the War of 1812 won for him immortal fame as a sagacious and intrepid commander. Jackson is described by Alfred Henry Lewis in "The Story of Andrew Jackson" which is now being published in the *Cosmopolitan* as "a meager, emaciated figure in a leather cap, a Spanish cloak of rusty blue, home spun coat, buckskin breeches, and high dragoon boots, . . . the iron face, and the high hawklike glance of the blue eyes in which the battle fires already begin to kindle." When Jackson arrived at New Orleans, the British armada of fifty ships, 20,000 men, and a thousand cannon were already in the Gulf of Mexico. He found the city in complete disorder and confusion, no preparation whatever for de-

fense, and the air everywhere filled with anarchy and treason.

The tremendous energy and endurance of this iron-hearted man is shown by the way in which he forced order out of confusion, made good fighting men out of traitors, and turned certain defeat into victory, achievements which, it would seem from the statements of his biographer, were made possible by his simple habits of life. Says Mr. Lewis with reference to this period, "These are busy times for the general. He lives on rice and coffee, and goes days and nights without sleep." The coffee certainly did the general no good, but the simple diet of rice seems to have steadied his nerves, energized his muscles, and thus prepared him to do the brave and forceful fighting which saved the country from the southern British invasion, as did the same simple fare accomplish the same results for the Japanese and their commanders in the recent struggle with the meat-eating Russians. It thus appears that the object lesson afforded by the victorious Japanese as regards the non-necessity for eating animal flesh to give soldierly energy, courage and endurance is not a new one.

A century ago Andrew Jackson, whose fighting qualities have for all time made his name luminous on the pages of military history, was doing marvelous exploits of endurance on a diet of rice which demonstrated its superior nourishing qualities in enabling him to defeat the formidable army of beef eaters which unexpectedly assailed our southern border.

It is high time to dismiss the silly talk about the need of meat to give men the courage and aggressiveness necessary for human progress, and to incite men to the defense of their rights.



# QUESTION BOX

**10,409. Ripe Olives — Uncooked Cereals — Water at Meals — Common Salt.** — E. E. S., Ohio: "1. What is the food value of ripe olives? 2. Are they gathered unripe and treated chemically to ripen them? 3. Are uncooked cereals good for food? 4. Should water be taken at meals? How much daily? 5. Is salt a desirable addition to food?"

*Ans.*—1. Ripe olives yield 76 calories to the ounce, of which 69 calories are fat.

2. Ripe olives are gathered ripe and then placed in preserving fluid. Green olives are picked quite green and deprived of the sharp and extremely bitter matter by being kept for several weeks in alkalinized water, then pickled in brine. We do not recommend green olives.

3. No.

4. A cupful of water at meal time is not generally harmful. In some digestive disturbances, however, it is best to avoid the use of water at meal times. About three pints of water are required daily. This in general should be taken at other than meal time, avoiding drinking within a half hour before and two hours after meals.

5. No. The food naturally contains more salt than can possibly be utilized by the system.

**10,410. Appendicitis.** — Mrs. B. P., Kansas: "Kindly outline a home treatment for appendicitis. My daughter, 16 years old, is still suffering from a recent attack."

*Ans.*—An antiseptic dietary should be adopted. Avoid meat, including flesh, fish, and fowl; tea, coffee, fried foods of all kinds, pickles and condiments. All food should be very carefully chewed. Cereals should be taken in a dextrinized form, such as toasted wheat flakes and toasted corn flakes, rather than mushes. If cornmeal mush is used it should be baked. Administer a large enema of water daily at 80°. Apply a fomentation twice a day over the region of the appendix, followed by the application of a heating compress during the interval. If the attacks are

repeated, the patient should have an operation. We would advise you to visit a scientifically conducted sanitarium and build up the patient's general vital resistance.

**10,411. Diet for a Boy of Two Years — Lemon Juice.** — T. W. J., Toronto: "1. When and what should a boy two years of age eat? 2. Do you favor the drinking of lemon juice in water an hour before breakfast, or is lemon juice, taken regularly, injurious?"

*Ans.*—1. A child two years of age should eat three or four times a day, making the second and fourth meals the heavier ones. The child may eat the following foods: cream, egg yolks, gluten preparations, bro-mose, malted nuts, baked potatoes, creamed cauliflower, fresh peas, well cooked, mashed and put through a colander, toasted corn flakes, toasted wheat flakes, granola, malt honey or meltose, fruits and fruit soups; rice (best when browned before boiling), rice pudding, and other desserts prepared by the aid of vegetable jelly. The child should have some fruit every day,—Oranges, baked apples, stewed prunes, pears, peaches. Avoid stale fruits, especially in the summer. Fruit juices, fruit toasts, fruit juices with granola, corn flakes or wheat flakes are very acceptable dishes. Milk may be used, but not too freely. According to Gautier, children who are fed exclusively on milk become "fat, puffy, lymphatic children, capable of standing little. This state is further accentuated by the abuse of sweetened dishes." Avoid meats of all sorts, fried foods of all kind, and the sour fruits and all fruits richly sugared.

2. The free use of lemon juice and other vegetable acids is wholesome.

**10,412. Friction Mitt — Vegetable Flesh Brush — Daily Bath — Dry Rub.** — W. S. L., Pennsylvania: "1. Please give direction for the use of the rough mitten and vegetable flesh brush. 2. Is a cold morning bath desirable for a person with a weak

system and low vitality generally, or is a dry rub preferable?"

*Ans.*—On rising in the morning go over the entire skin with the mitten.

2. The dry rub, followed by an oil rub, is preferable for feeble persons with dry inactive skin. A little fine olive oil or refined vaseline should be used to lubricate the skin.

**10,413. Dietetic Value of Cotton and Olive Oil — Excessive Perspiration — Rectal Dilatation.** — J. B., Florida: "1. What is the comparative dietetic value of cotton and olive oil? 2. Please give the cause of and remedy for excessive perspiration. 3. Please give the remedy for rectal dilatation."

*Ans.*—1. The nutritive value, as established by analysis of the two kinds of oil, is essentially the same.

2. Excessive perspiration is present in certain diseases, such as rickets, tuberculosis, acute rheumatism, intermittent malarial fever; also in mental excitement, as hysteria and neurasthenia, and after the use of certain drugs. The remedy consists in treating the cause.

3. Bathing the parts with very cold water

twice a day. If necessary, an operation should be performed.

**10,414. Rectal Trouble — Flushing of Colon — Health Foods.** — C. A. S., Illinois: "1. Kindly advise treatment of rectal trouble in the form of itching and smarting at the opening after movement of bowels and sometimes a dull aching higher up. 2. Do you advise the flushing of the colon? If so, with what apparatus? I have a water bag with a soft rubber tube that can be inserted 12 or 14 inches. Is it suitable? 3. I use health foods largely but they seem to harden the feces very much. Why is this?"

*Ans.*—1. The difficulty is probably due to an ulcer. This may require surgical treatment.

2. Yes, in cases of constipation or dilatation of the colon, especially when there are symptoms of autointoxication. Use an ordinary bulb syringe, of the Davidson type, or a fountain or syphon syringe. An ordinary enema tube is all that is required. Nothing is gained by the introduction of a longer tube.

3. Because of their complete digestibility.

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

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

**10,415. Buttermilk — Sympathy of Skin and Mucous Surfaces — Pineapple — Avocado Pears — Dilated Stomach — Water Drinking.** — K. F., Maritzburg, Natal: "1. You recommend buttermilk as an article of diet. Pawlow has shown that milk is a constant and active excitant of the gastric juice, and one might infer that buttermilk would serve as a specially powerful excitant, seeing that it is devoid of fat, which abounds in sweet milk and which exercises an inhibitory effect on the secretion. Will you kindly give your reason for the above advice? 2. Is buttermilk adapted to cases of dilatation of the stomach? 3. Does it contain lactic acid to any degree? 4. In 'Rational Hydrotherapy', page 928, it is stated that an inactive skin usually implies an inactive mucous membrane; when the skin is restored to a state of activity, will this remove the inactivity of the mucous surfaces? 5. Is it true that the pineapple contains a ferment which assists in converting proteid into peptone? 6. Has the avocado pear any special properties in this respect? Can you give me the food analysis of it? 7. Can the walls of an extremely dilated stomach be restored to their normal state by fasting for a considerable period? 8. Does clear urine, after drinking freely of water, indicate a state of disease of the kidneys?"

*Ans.*—1. Milk excites the stomach less than any other food.

2. Buttermilk is often useful in cases of gastric catarrh. It is preferable to ordinary milk for the reason that it does not form hard clots and passes quickly out of the stomach.

3. Yes, about one half of one per cent.

4. Yes.

5. Yes.

6. We are not aware that this fruit has any digestive properties. We do not know of any published analysis of this fruit.

7. Fasting is sometimes doubtless beneficial in dilation of the stomach.

8. No.

**10,416. "Clabber" in Slow Digestion.** —X. Y. Z., Mississippi: "1. How many calories are there per ounce and per pint in rich whole milk that has turned to "clabber"? Does the souring increase or diminish the number of calories? 2. If a sufferer from slow digestion and intestinal catarrh finds "clabber" more quickly and more easily digested than any other food and more relishable, would it be advisable to live upon it exclusively? If so, how much should be taken by a person weighing 135 or 140 pounds? 3. Should such a person eat "clabber" from whole milk or from milk that has been skimmed?"

*Ans.*—1. The number of calories or food units in sour milk is not diminished by the

process of souring. The food value of milk is about 21 calories to the ounce.

2. Yes, until the stomach has become healthier; and in most such cases a small amount of farinaceous food may be added, in the form of well-toasted bread, corn flakes, etc., and some similar product. The quantity of milk required is so great that it is difficult to make it an exclusive article of food. Milk also contains an excess of proteids, and hence is not well adapted to exclusive feeding. The amount required for a full grown adult person is about 100 ounces per diem, or between three and four quarts.

3. If the sour milk is to be taken as an exclusive dietary it is necessary that it should contain some fat, and it is better that the cream should be retained.

**10,417. Reducing Enlarged Tonsils.** — A subscriber asks the following question: "Can you give advice for reducing enlarged tonsils? Have painted them with iodine for some time without effect."

*Ans.*—In most cases the best plan of getting rid of a chronically enlarged tonsil is to remove it. The tonsil is simply a lymphatic gland. When it has become permanently enlarged it has outlived its usefulness and can be well dispensed with.

**10,418. Home Treatment for Neurasthenia.** — M. J., Manitoba: "Kindly advise a home treatment for a young woman who has been suffering with neurasthenia for three years. Also specify proper diet."

*Ans.*—Such a patient should adopt the outdoor life with an abundance of outdoor exercise. The dress should be hygienic, as outlined in current numbers of Good Health. A cold bath should be taken every morning. Horseback riding, rowing, and similar exercises will be found helpful. A pleasant physical occupation and wholesome mental surroundings ought to be sufficient to effect cure in the ordinary case. The diet should be similar to that recommended in the answer to 10,403.

### Fine for Wearing Trains

THE town of Nordhausen, Prussian Saxony, recently passed a law prohibiting the wearing of trailing dresses on the streets. The ordinance is worded thus:—"A measure for the protection of health and for the prevention of tainting the air with dust." A penalty of \$7.50 is imposed for the violation of this wholesome law.

# POPULAR MEDICAL FALLACIES

## The Truth About Some of the Common Things Regarding Which Erroneous Beliefs Are Generally Held

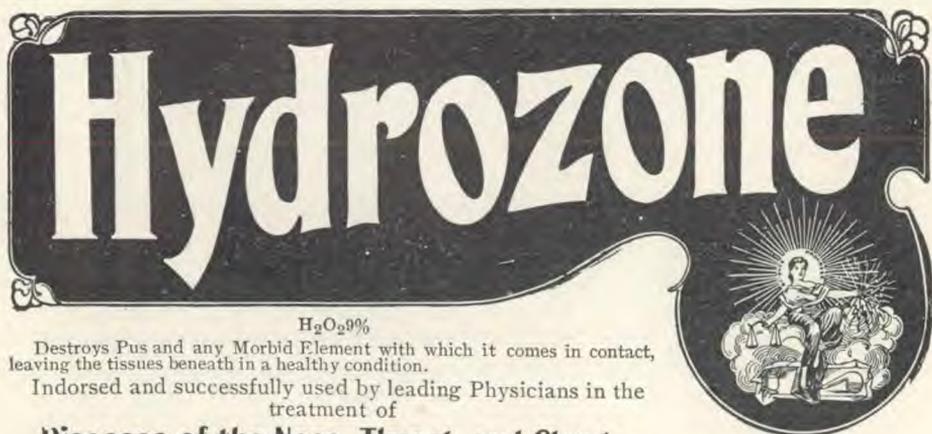
Superstition feeds on ignorance. A great share of the medical notions current among the laity are mere superstitions, the natural outgrowth of the ignorance of the people and the mantle of mysticism which medical men have so long thrown about the practice of the so-called healing art.

Modern medical practice is rapidly clearing away the accumulated rubbish of ages of ignorance. Men and women are rapidly getting their eyes opened to the falsity of a multitude of current beliefs respecting disease and remedies. It is most refreshing to find in a popular journal like the *American Magazine*, an excellent article by Dr. Hirshberg, a well-known physician, showing the ab-

surdity of many popular medical beliefs. We quote a few of the doctor's observations as follows:—

### "Boils

"As a matter of fact, a boil is a local excitement, and is due purely to local infection. A rebellious hair, alive with infinitely small organisms, curls over and starts to grow into your skin; you scratch yourself and a stray germ wanders into the wound (you can scarcely see the scratch yourself, but to the germ it seems as large as a railroad tunnel); your collar rubs your neck and a microbe goes in with the starch; a sweat gland is clogged with the dust and the dust is full of staphylococci—one of



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Prepared only by

*Charles Marchand*

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).  
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733

these things happens and in a few days you have a boil.

"First of all there is a little red point and a feeling of heat. Then comes a swelling and the redness spreads. A few days more and there is a white speck in the center of it. Again an interval, and the covering breaks, there is a discharge of pus, the redness disappears, pain follows, and, if you are lucky, the scar that remains is small. You have had your ten dollars' worth.

"Scientifically, all of this redness and heat and pain may be described as a battle between the intruding germs and the white corpuscles of your blood. As soon as the germs get into the skin the corpuscles attack them and try to swallow them. If you were to cut open a boil and examine it under a microscope you would see the process plainly. There are the germs and there are the white corpuscles. Every now and then you will notice that a white corpuscle approaches and gathers in a germ, just as an oyster swallows a baby crab. First you see the germ enjoying life on its own account, and then, of a sudden, you see it a prisoner within the transparent body of the corpuscles.

"If the corpuscles have an easy victory over the germs, the boil is small, and sometimes it is so small that you scarcely notice it. Then it is commonly called a pimple or an "ingrowing hair." But when the battle is fierce and the victory is long in doubt, there is a great pother and swelling, and you have a big throbbing, paralyzed boil. When the fight is won, the boil is full of the débris of the conflict—corpuscles gorged with germs and germs slain in the mêlée. This débris is the yellowish, creamy substance called pus. When the boil breaks, it is expelled and the soreness disappears. All of the germs have been killed. The white cor-

puscles, who are the scavengers and policemen of the body, have won their fight.

"In view of this it is plain that boils are not symptoms of blood diseases, nor are they evidences that the system needs "toning up." All they show is that a certain number of stray germs have lodgment in the skin and that the white corpuscles are trying to get them out. Boils appear on the neck so often for the reason the collars worn by men, being stiff and full of filth embalmed in starch, irritate the skin and force organisms into it. Women who ordinarily wear soft collars, do not have nearly so many boils as men. Poets, who wear low, loose collars, usually escape the neck variety altogether.

"Of course, there are a great many blood and general diseases that have, for symptoms, eruptions of the skin. Smallpox, as every one knows, is one of them, and various familiar functional disorders are others. But your true boil—as its unlucky victim understands the word—is not a symptom, but a disease. It is a blood-brother to the pimple, the blackhead, and the horrid enemies of shining beauty. All of them are caused by the entry of unwelcome intruders into the pores and sweat glands. Contrary to popular opinion the absorption of wholesale doses of sulphur and molasses and other so-called tonics does not cure them. The best thing to do when you have one is to help the white corpuscles in their battle by touching the boil with some genial assassin of itinerant bacilli such as a lancet, best supplied by a friendly doctor.

"The notion that boils purify the blood and 'tone up' the system is but one of ten thousand popular medical fallacies. Some of them are confined to the ignorant—such, for instance, as the idea that gin is 'good' for the kidneys

(whatever that may mean), or that camomile tea cures indigestion—but a great many of them, unfortunately, still find acceptance among the more empiric and unscientific family doctors.

#### *"Colds"*

"There are on the market to-day more than a thousand ready-made cures for colds, and every adult American, according to Mark Twain, has a private remedy of his own. But in the vast majority of cases colds cure themselves. Like pneumonia and other more serious diseases, they run a definite course. They appear, they make their victims miserable and then disappear. Nature effects the cure, and some one of the multitude of specifics gets the credit. Once, when Dr. William Osler was asked by a patient to write a prescription for a cold in the head, he said: 'I will give you four days.' The patient abided the time—and was cured.

"Mustard footbaths, hot lemonade, hot Scotches, whisky and quinine, powders and all the other familiar remedies have little or no direct effect. Their value—if they have any at all—lies in the fact that they ease the patient's mind and satisfy the universal yearning to 'take something for it.'

"The popular idea that it is possible to take cold in a boil, and that the result is dangerous, is utterly and hopelessly nonsensical. By a cold in a wound of any sort the layman means an infection. A boil is already infected, else it wouldn't be a boil. Hence it is absurd to believe that it may be infected again. A clean scratch or cut, of course, may become infected, particularly if it is not properly cleansed. Then it becomes, to all intents and purposes, a boil, and there ensues the familiar battle between the intruding germs and the white corpuscles constabulary, ending, very often, with a discharge of pus.

In that case it is customary to say that the patient 'took cold in his sore and it festered.'

#### *"Medicine Often Gets Fraudulent Credit"*

"Half the drugs known to materia medica have been used for pneumonia. Years ago patients were bled. Then came an era of counter-irritation, which was followed by one of antipyretics. Quinine gave way to aconite, which in turn, was displaced by whisky, strychnine, digitalis, and ice packs. To-day the more advanced physicians let nature combat the disease. All they do to help is to keep the patient clean and comfortable and give him plenty of nourishment and air. The use of drugs is well-nigh abandoned, the body fights its battle alone, and six or eight times out of ten it wins.

"Typhoid and tuberculosis are certainly serious diseases, and yet all the physician can do is to give nature an opportunity to effect a cure, under the most favorable possible conditions. The germ of consumption is proof against all antitoxins, germicides, and other specifics ever invented, but if the patient is kept clean and well nourished by both good food and good air, and reasonably calm in mind, his white corpuscles will fight for his life, and, in the majority of cases, win. It is so with a hundred and one other diseases. Medicines in many cases do more harm than good, but when they are swallowed and poor nature, in spite of them, effects a cure, they get all the credit. This credit is equally false and fraudulent whether they be patented and advertised cure-alls or the fearful and wonderful prescriptions of empiric physicians.

#### *"Malaria"*

"A popular idea that malaria is caused by bad air seems to be justified by the very name of the malady. But, as a

matter of fact, while bad air is a customary accompaniment of the mosquitoes which bear the organisms which actually produce the disease, it is in no sense a contributory cause itself. Guard yourself against the anopheles mosquito and you will never get malaria, no matter how much bad air you breathe. Let the festive anopheles feast upon you, and you will begin to shiver and shake in an atmosphere of chemically pure ozone.

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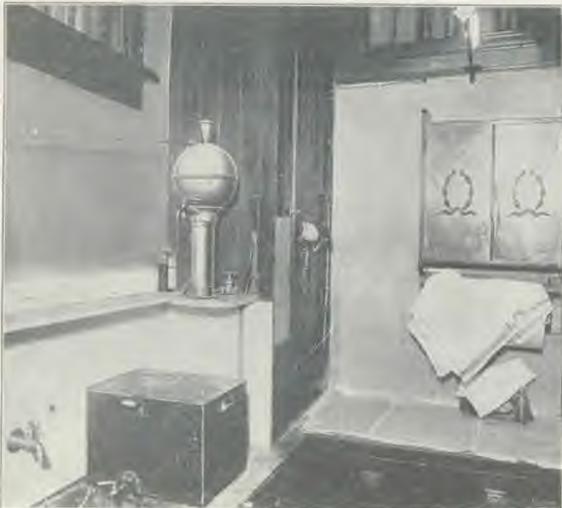
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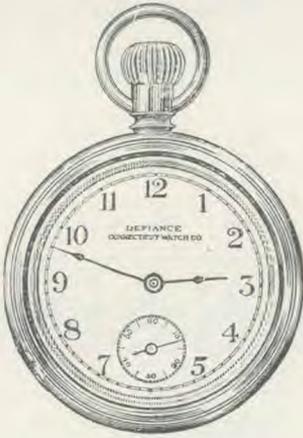


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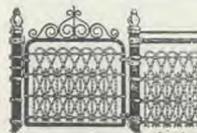
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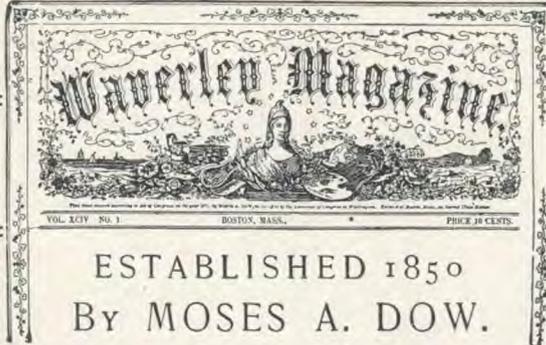
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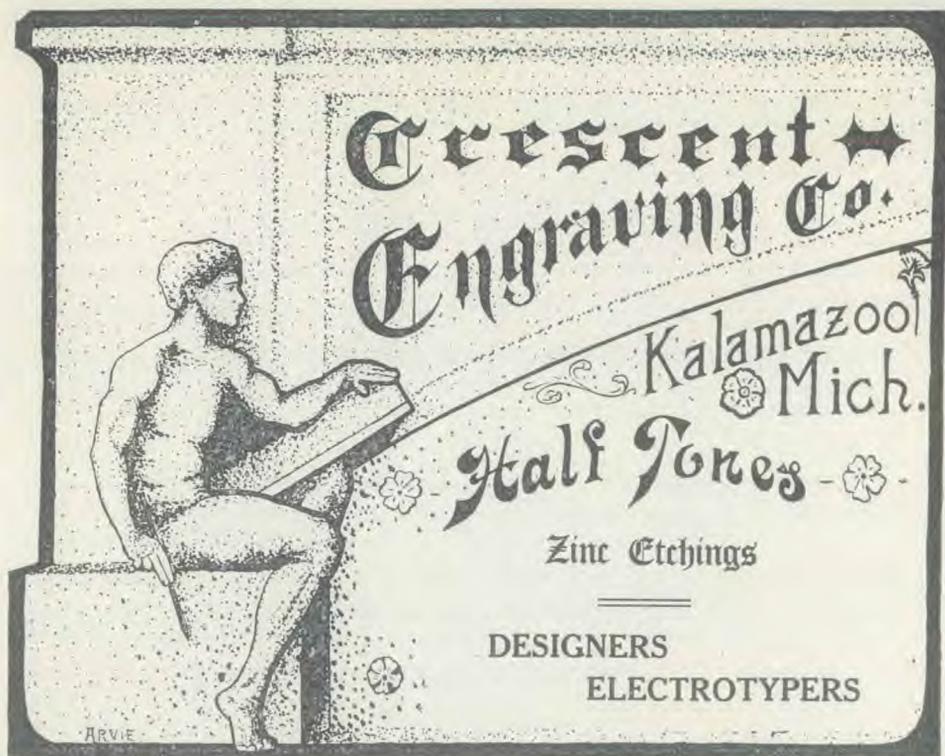
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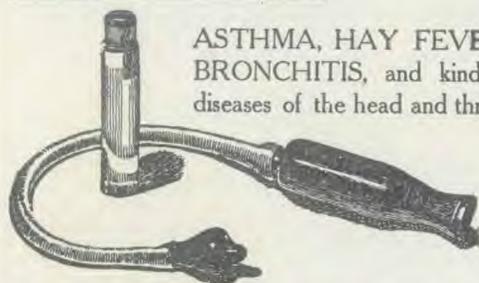
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