The Largest and Most Thoroughly Equipped of Sanitariums

The Battle Creek Sanitarium management were the first to organize a thoroughly complete system of physiological therapeutics. Water-cures had existed before,— eclectic institutions, mineral springs, and similar establishments,— but the Battle Creek institution was the first to organize a system and met od embodying all physiological agencies.

The fire which consumed the main building of the institution Feb. 18, 1902, gave opportunity for complete reorganization and new equipment. The new structure is absolutely fire-proof; the mode of fire-proof construction employed was, of all so-called fire-proof constructions, the only one that stood the test of the recent conflagration in Baltimore.

One hundred and seventy-five rooms with private baths; six hydraulic elevators; electric lights; and private telephone in each room.

Spacious parlors on every floor, roof garden, dining-room and kitchen at the top. Beautiful outlook from every window.

Accommodations for eight hundred guests. Staff of thirty doctors; three hundred and fifty nurses.

Nearly forty years' experience in this institution has demonstrated that the great majority of chronic invalids of all classes, including many considered incurable, can be trained up to a state of healthful vigor by a systematic regimen based upon scientific principles, combined with a thoroughgoing application of the resources of hydrotherapy, phototherapy, thermotherapy, massage, Swedish movements, Swedish gymnastics, electrotherapy, and the open-air treatment, guided by the findings of bacteriological, chemical, microscopical, and other accurate methods of examination.

Special ward for surgical cases with perfect appointments.

Special departments for diseases of the eye, ear, nose, and throat, and in charge of experienced specialists.

For information concerning the facilities afforded, terms, etc., address.

THE SANITARIUM, Battle Creek, Mich.

The Pennsylvania Sanitarium

An institute of physiological therapeutics, employing the well-known Battle Creek methods. Combines the best features of a first-class home with all the medical advantages of a modern hospital, and in addition has an unsurpassed collection of appliances, methods, and facilities for training sick people back to health and efficiency.

Health by training is not palliative, but means reconstruction of the whole body. This is what we set about to do for every one who visits us. For Booklet A, giving methods and detailed information, rates, etc., address —

Pennsylvania Sanitarium

1929 Girard Ave., • Philadelphia, Pa.

GOOD HEALTH

EDITED BY J. H. KELLOGG M.D.

MAY

Vol. XLI. PUBLISHED MONTHLY No. 5.

Entered at the Post-office in Battle Creek, Mich., as Second-class Matter

10 Cents a Copy $1.00 a Year

EMIL RINGEL 1906

Our Health Waist

LONG WAIST

Design

Perfect

Quality

the Best

SHORT WAIST

REPLACES the *CORSET*, fulfilling all requirements without its harmful effects. For *Gracefulness, Ease,* or *Comfort* this garment surpasses anything ever before manufactured. For *Economy* this waist is cheap at any cost when compared with the old-style corset, because it does not deform the body, nor destroy the health, but benefits and restores instead. It is *washable* and *adjustable*. You can make it larger or smaller by adjusting the shoulder straps and oval elastic in either side. By making the former longer or shorter, the length of the skirt may be regulated.

We sell three qualities,—a medium weight jean twilled material, or lighter weight Batiste for summer wear, and a heavier weight sateen. White or Drab Jean or Batiste, bust measure 30 to 38, price $1.25; 40 and 42, $1.50; 44 and 46, $1.75. White or Drab Sateen, bust measure, 30 to 38, price $1.75; 40 and 42, $2.00; 44 and 46, $2.25. Black Sateen, bust measure, 30 to 38, price $2.00; 40 and 42, $2.25; 44 and 46, $2.50. All other measurements must be made to order, and cost 25c additional, which add to remittance. We carry in stock sizes from 30 to 42 inches bust measure, and in the even numbered sizes only.

When sending in orders for waist, *take the bust, hip, and waist measures snugly over the undergarments.* We have *long* and *short* waists. The latter end at the waistline, and the former five inches below, as per cuts. *When ordering state which is desired.*

We also carry Children's Waists in White or Drab Batiste. Price 50c. Sizes 18 to 28. The size of a child's waist is the measurement at the waistline. To determine the size required, take the measure over the clothing, and deduct two inches.

Address DRESS DEPARTMENT

GOOD HEALTH PUBLISHING COMPANY

115 Washington Avenue, North, BATTLE CREEK, MICHIGAN

CONTENTS

MAY 1906

BETWEEN OURSELVES

(Our own page especially reserved to tell you a few things about "us")

The Advertising Question

No reputable magazine has any more right to advertise a "fake" than a merchant has to sell one.

The same care that a responsible dealer takes in keeping clean, dependable goods, must be exercised by the management of any clean, reliable publication For just as the merchant, displays the various wares on shelves and counters, in windows and show cases, so the magazine displays before the contemplative purchaser those wares that are advertised in its pages. And the responsibility of the latter for the nature of the articles which it importunes the public to buy is in no way less than that of the merchant who sells them from his counters.

The government recognizes this when it bars from the mails a paper offering objectionable advertisements. The paper may be perfectly reputable in itself, but it is held none the less responsible for the non-reputable advertising matter it prints. But Uncle Sam's olfactory sense, it seems, is not sufficiently developed to cause offense over any but most poignant stench, so America still continues to pay enormously for the ptivilege of being poisoned with dangerous advertised concoctions or robbed through advertised frauds.

This being true, there is but one thing for the management of a reputable publication to do. That is to accept unreservedly the responsibility for the advertising matter it prints. Every piece of advertising copy submitted must be carefully considered. **Apparently safe** propositions, rather than being "given the benefit of the doubt," must receive the closest scrutiny of all, for it is upon the apparent safety of a propposition that the grossest deception always depends. The management of the magazine must **know** the truth about the ads it prints.

Our Policy

All the advertising copy submitted Good Health passes through a strict censorship before it is given space in advertising columns.

It has come to our attention that defective sets of back numbers of Good Health have gone out by accident to some of those answering the ad "An Armful of Good Reading for a Quarter." In all such cases we will gladly make substitutions if notified.

Not only the advertisement itself, but its **purpose** and the **merit** of the article advertised are given attention. Good Health readers know this—we keep them in mind of it. And that is why they depend on Good Health advertisements.

A Friend Says

Editor GOOD HEALTH:—My mother has received such help and pleasure from your magazine that she desires me to write her appreciation. We are not strict vegetarians, but we **do** try to live as hygienically as possible without absolutely discarding meat diet—to this end we have found Good Health full of suggestive hints. We also find it a great help in jogging our memories, for in so many of the details of healthful living one can so easily back-slide.

Newton, Mass. E. A. T.

That Quarter Offer

Dozens of people wrote in last month for all the way from one dozen to eight dozen back numbers of Good Health in accordance with our advertised offer. Some sent them to friends or relatives, while many copies went to hospitals, asylums, jails and other institutions where **good** instructive reading is so badly needed. One set was sent to Panama—possibly to help teach the canal diggers health principles. Other bunches of twelve went to almost every state in the union. If you are interested in **Good Health**, you ought to be interested in this offer. Send us a quarter for twelve clean back numbers. You'll get the best we can send. We have them: you haven't. They are of no use to us and may be of infinite value to you or to your friend. The truths in the old numbers are still new. What is more, they will never get old, because they **are** truths.

Speaks For Itself

Gentlemen:—Enclosed please find express money order for $1.00 in payment for Good Health monthly for 1906. I have been highly gratified and interested in the perusal of the volume of the past year, and have no doubt but this year's production will prove of increased interest in what is good and useful.

Wishing you much pleasure and success in your great enterprise,

Sincerely yours,

Stayner, Ont. J. B.

Good Health for June

The June number of Good Health ought to go into every home in America. It will be a splendid number, crammed from cover to cover with good things. Out-of-door life will be its theme and it will be sparkling and glowing with freshness of wood, lake, and field. No pains have been spared in making it even better than the past several numbers.

We say it ought to go into every home in America. What good might not be accomplished if such a thing were possible? Think of the weakness that would give way to strength, of the misery that would give way to the thorough enjoyment of life if the blessings of outdoor life were fully appreciated.

Your consumptive friend ought to have this number. Will you see that he gets it?

GOOD HEALTH

Is the oldest health journal in the world. It is owned and published by a philanthropic association organized for the purpose of promoting hygienic reform in general and especially dietetic reform. There is no private interest, and the journal is not the organ of any institution or association other than its own.

EDITORIAL STAFF

J. H. KELLOGG, M. D., Editor.
MRS. E. E. KELLOGG, A. M., Editor Domestic Departments.

COLLABORATORS

A. B. OLSEN, M. S., M. D., M. R. S. C., L. C. R. P. (England), Caterham, Surrey, England.
DAVID PAULSON, M. D., Hinsdale, Ill.
MARY WILD PAULSON, M. D., Hinsdale, Ill.
KATE LINDSAY, M. D., Boulder, Colo.
W. H. RILEY, M. S., M. D., Battle Creek, Mich.
J. C. OTTOSEN, A. M., M. D. (Copenhagen), Skodsborg, Denmark.
CHAS. E. STEWART, M. D., Battle Creek, Mich.
GEORGE THOMASON, M. D., L. R. C. S., L. R. C. P. (Ireland), Cape Town, South Africa.
C. C. NICOLA, M. D., Melrose, Mass.
J. F. MORSE, M. D., Battle Creek, Mich.
W. A. GEORGE, M. D., College View, Nebr.
HOWARD F. RAND, M. D., Boulder, Colo.
W. R. SIMMONS, M. D., Portland, Oregon.
ABBIE WINEGAR-SIMPSON, M. D., Glendale, Cal.
C. P. FARNSWORTH, M. D., Madison, Wis.
S. P. S. EDWARDS, M. D., Moline, Ill.
A. Q. SHRYOCK, M. D., Seattle, Wash.
MARY B. NICOLA, M. D., Melrose, Mass.
S. YARNELL, M. D., Spokane, Wash.
O. M. HAYWARD, M. D., Nashville, Tenn.
FRANK J. OTIS, M. D., Chicago, Ill.
MABEL HOWE-OTIS, M. D., Chicago, Ill.
J. F. BYINGTON, M. D., Battle Creek, Mich.
J. E. HEALD, M. D., Peoria, Ill.
CAROLYN E. GEISEL, M. D., Battle Creek, Mich.
A. J. READ, M. D., Battle Creek, Mich.
L. J. BELKNAP, M. D., San José, Cal.
D. H. KRESS, M. D., Wahroonga, N, S W., Australia.
LORETTA KRESS, M. D., Wahroonga, N. S. W., Australia.
S. A. LOCKWOOD, M. D., Nichome, Kobe, Japan.
P. A. DEFOREST, M. D., Basle, Switzerland.
A. J. HOENES, M. D., Friedensau, Bez. Magdeburg, Germany.
R. S. INGERSOLL, M. D., Calcutta, India.
JOHN M. KEICHLINE, M. D., Cairo, Egypt.

NIAGARA FALLS

Some day you are going to see Niagara Falls. It is a duty you owe yourself, and sooner or later you intend to make the trip. When you do, it will be well for you to remember the

MICHIGAN CENTRAL

"The Niagara Falls Route."

BETWEEN THE

EAST AND WEST

All trains passing by day stop five minutes at FALLS VIEW STATION, directly overlooking the HORSESHOE FALLS, from the Canadian bluff.

From no other point can be had so fine a view of the entire panorama of the Falls, the rapids of the upper river and the gorge below. Stop-over allowed on through tickets.

Ask about the Niagara Picture.

NEW YORK CENTRAL LINES

W. J. LYNCH, Pass'r Traffic Mgr.

O. W. RUGGLES Gen'l Pass'r Agt.

CHICAGO

SPECIAL OFFERS

BIBLES, Remit us $2.50

And we will send you GOOD HEALTH one year, and a $3.85 HOLMAN BIBLE, bound in Egyptian morocco with divinity circuit, red under gold, size 5¼x7¾. The type is bourgeois, 8vo., easy to read. Contains column references, fifteen maps, four thousand questions and answers on the Bible, concordance of nearly fifty thousand references, and a new illustrated Bible dictionary. We will send a smaller Holman Bible, size 4⅜x6½, with fine minion print, 16mo., in place of the larger size, if desired. Thumb index, 50c extra.

Send for our 1905 Catalogue.

COMBINATIONS

We will send GOOD HEALTH one year with the following for price set opposite each:

Life Boat	$1.10	Life Boat and Medical Missionary	$1.50
Medical Missionary	1.00	Vegetarian	1.25
Little Friend	1.10	American Motherhood	1.25
Bible Training School	1.00	Youth's Instructor	1.50
Atlantic Union Gleaner	1.10	Southern Watchman	1.25
Home, Farm and School	1.00	Signs of the Times	2.00

The *Review and Herald* may be included in any of the above offers by adding $1.50. New or renewed subscriptions accepted. All sent to different addresses if desired.

HEALTH BOOKS

We will send you any of the following named books, written by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium, with one year's subscription to GOOD HEALTH and *Medical Missionary* for the prices set opposite each:

The Stomach, Its Disorders and How to Cure Them, cloth	$2.00	Man the Masterpiece, cloth	$3.50
Half-buff	2.50	Half-buff	4.00
Art of Massage, cloth	2.75	Library	4.25
Half-leather	3.50	Home Hand-Book, cloth	4.75
Ladies' Guide, cloth	3.50	Half-buff	5.25
Half-buff	4.00	Library	5.75
Library	4.25	Or Science in the Kitchen, by Mrs. E. E. Kellogg, in Oilcloth	2.25

Healthful Cookery, Paper, 1.10. Cloth 1.45

HAVE YOU A COLD?
DO YOU SUFFER WITH CATARRH?

TRY OUR MAGIC POCKET VAPORIZER

A simple, convenient instrument for the treatment of Catarrh, Colds, and all diseases of the nose, throat, and lungs.

Write for descriptive booklet and terms.

Price only $1.00

With one year's subscription to Good Health, new or renewed, only $1.25.

Address GOOD HEALTH PUB. CO.
115 Washington Ave. N. . . BATTLE CREEK, MICH.

SANITARIUMS

The following institutions are conducted in harmony with the same methods and principles as the Battle Creek Sanitarium.

CALIFORNIA SANITARIUM, Sanitarium, Napa Co., Cal.
NEBRASKA SANITARIUM, College View, Lincoln, Nebr.
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.
CHICAGO SANITARIUM, 28 33d Place, Chicago, Ill.
Frank J. Otis, M. D., Superintendent.
IOWA SANITARIUM, 603 E. 12th St., Des Moines, Iowa.
J. E. Colloran, M. D., Superintendent.
TRI-CITY SANITARIUM, 1213 15th St., Moline, Ill.
S. P. S. Edwards, M. D., Superintendent.
PARADISE VALLEY SANITARIUM, City Office and Treatment Rooms, 1117 Fourth St., San Diego, Cal.
Sanitarium, Box 308, National City, Cal.
LOMA LINDA SANITARIUM, Loma Linda, Cal.
J. A. Burden, Manager.
TREATMENT ROOMS, 257 S. Hill St., Los Angeles, Cal.
J. R. Leadsworth, M. D., Superintendent.
GARDEN CITY SANITARIUM, San Jose, Cal.
Lewis J. Belknap, M. D., Superintendent.
MADISON SANITARIUM, Madison, Wis.
C. P. Farnsworth, M. D., Superintendent.
SPOKANE SANITARIUM, Spokane, Wash.
Silas Yarnell, M. D., Superintendent.
TREATMENT PARLORS, 137 Oneida St., Milwaukee, Wis.
TREATMENT ROOMS, 201 Granby Block, Cedar Rapids, Iowa.
R. L. Mantz, M. D., Superintendent.
BUFFALO SANITARIUM, 922 Niagara St., Buffalo, N. Y.
A. R. Satterlee, M. D., Superintendent.
NASHVILLE SANITARIUM, Cor. Church and Vine Sts., Nashville, Tenn.
O. M. Hayward, M. D., Superintendent.
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.
KANSAS SANITARIUM, 3200 W. Douglass Ave., Wichita, Kans.
UPPER HUDSON SANITARIUM, Hadley, N. Y.
E. F. Otis, M. D., Superintendent.
HINSDALE SANITARIUM, Hinsdale, Ill.
David Paulson, M. D., Superintendent.
MIDDLETOWN SANITARIUM, 46 to 48 E. Main St., Middletown, N. Y.
B. B. Kline, M. D., Supt.
TREATMENT ROOMS, 565 Main St., Springfield, Mass.
Chas. S. Quail, Manager.
ROCHESTER TREATMENT PARLORS, 156 Monroe Ave., Rochester, N. Y.
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.
LONE STAR SANITARIUM, Keene, Texas.
D. C. Ross, M. D., Superintendent.
GLENDALE SANITARIUM, Glendale, Cal.
W. Ray Simpson, Manager.
PENNSYLVANIA SANITARIUM, 1929 Girard Ave., Philadelphia, Pa.
H. B. Knapp, M. D., Superintendent.
SURREY HILLS HYDROPATHIC INSTITUTE, Caterham, Surrey, England.
A. B. Olsen, B. S., M. D., M. R. C. S., Supt.
LEICESTER SANITARIUM, 80 Regent St., Leicester, England.
F. C. Richards M. D., M. R. C. S., Supt.
CALCUTTA SANITARIUM, 50 Park St., Calcutta, India.
R. S. Ingersoll, M. D., Superintendent.
PLUMSTEAD SANITARIUM, Cape Town, So. Africa.
Geo. Thomason, M. D., L. R. C. S., Supt.
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
SANITORIUM 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. Magdeburg, Germany.
A. J. Hoenes, M. D., Superintendent.
KIMBERLEY BATHS, 32 Old Main St., Kimberley, So. Africa.
J. V. Willson, Mgr.
TREATMENT ROOMS, 58 Madison Ave., Detroit, Mich.
Dr. Jean A. Vernier, Manager.

Health Food Restaurants

Eating-houses where food prepared in accordance with the principles of rational dietetics and scientific cookery may be obtained are now open in the following places:—

RESTAURANTS.

The Pure Food Cafe, 13 S. Main St., Salt Lake City, Utah.
Hygienic Company, 1209 G St., N. W., Washington, D. C.
Dining Room, Church and Vine Sts., Nashville, Tenn.
Hygeia Dining Rooms, 5759 Drexel Ave., Chicago, Ill.
Hygienic Cafe, 426 State St., Madison, Wis.
Pure Food Cafe, 607 Locust St., Des Moines, Iowa.
Pure Food Cafe, 403 E. 11th St., Kansas City, Mo.
Good Health Cafe, 143 N. 12th St., Lincoln, Nebr.
Vegetarian Cafe, 19 East Bijou St., Colorado Springs, Colo.
Vegetarian Restaurant, 555 Boylston St., Boston, Mass.
Vegetarian Cafe, 814 Pine St., St. Louis, Mo.
Vegetarian Cafe, 1519 Stout St., Denver, Colo.
The Vegetarian, 755 Market St., San Francisco, Cal.
Vegetarian Cafe, 259 So. 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 Restaurant, 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.

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.

WING PIANOS

Are Sold Direct From the Factory, and in No Other Way

You Save from $75 to $200

When you buy a Wing Piano, you buy at wholesale. You pay the actual cost of making it with only our wholesale profit added. When you buy a piano, as many still do—at retail—you pay the retail dealer's store rent and other expenses. You pay his profit and the commission or salary of the agents or salesmen he employs—all these on top of what the dealer himself has to pay to the manufacturer. The retail profit on a piano is from $75 to $200. Isn't this worth saving?

SENT ON TRIAL

Anywhere

WE PAY FREIGHT
No Money in Advance

We will place a Wing Piano in any home in the United States on trial, without asking for any advance payment or deposit. We pay the freight and all other charges in advance. There is nothing to be paid either before the piano is sent or when it is received. If the piano is not satisfactory after 20 days' trial in your home, we take it back entirely at our expense. You pay us nothing, and are under no more obligation to keep the piano than if you were examining it at our factory. There can be absolutely no risk or expense to you.

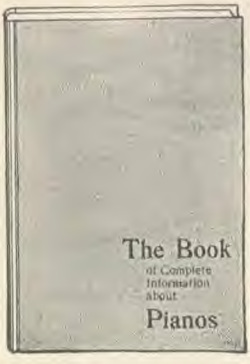
Do not imagine that it is impossible for us to do as we say. Our system is so perfect that we can without any trouble deliver a piano in the smallest town in any part of the United States just as easily as we can in New York City, and with absolutely no trouble or annoyance to you, and without anything being paid in advance or on arrival either for freight or any other expense. We take old pianos and organs in exchange.

A guarantee for 12 years against any defect in tone, action, workmanship or material is given with every Wing Piano.

Small, Easy MONTHLY Payments

In 37 years over 40,000 Wing Pianos have been manufactured and sold. They are recommended by seven governors of States, by musical colleges and schools, by prominent orchestra leaders, music teachers and musicians. Thousands of these pianos are in your own State, some of them undoubtedly in your very neighborhood. Our catalogue contains names and addresses.

Mandolin, Guitar, Harp, Zither, Banjo—The tones of any or all of these instruments may be reproduced perfectly by any ordinary player on the piano by means of our Instrumental Attachment. This improvement is patented by us and cannot be had in any other piano. WING ORGANS are made with the same care and sold in the same way as Wing Pianos. Separate organ catalogue sent on request.



YOU NEED THIS BOOK

If You Intend to Buy a Piano—No Matter What Make

A book—not a catalogue—that gives you all the information possessed by experts. It tells about the different materials used in the different parts of a piano; the way the different parts are put together, what causes pianos to get out of order and in fact is a complete encyclopedia. It makes the selection of a piano easy. If read carefully, it will make you a judge of tone, action, workmanship and finish. It tells you how to test a piano and how to tell good from bad. It is absolutely the only book of its kind ever published. It contains 156 large pages and hundreds of illustrations, all devoted to piano construction. Its name is "The Book of Complete Information About Pianos." We send it free to anyone wishing to buy a piano. All you have to do is to send us your name and address.

Send a Postal To-day while you think of it, just giving your name and address or send us the attached coupon and the valuable book of information, also full particulars about the WING PIANO, with prices, terms of payment, etc., will be sent to you promptly by mail.

WING & SON
350-370 West 13th Street., New York
1868——37th YEAR——1905

Cut or tear out this coupon and mail to us, after writing your name and address at bottom. We will promptly mail book and other information.

WING & SON
350-370 W. 13th St., New York

Send to the name and address written below, the Book of Complete Information about Pianos, also prices and terms of payment on Wing Pianos.

Begin to live right to-day. If you will live the life and eat the foods our experts recommend, Sign the Coupon at the top of this page, and mail at once.

If you wish to receive copy of book mentioned in this advertisement, write your name and address in margin above, tear off this corner, and mail to Battle Creek Sanitarium Co., Ltd. Dept. 92. Battle Creek, Michigan.

TEAR OFF HERE

You Live as You Eat

If you are sick and want to be well—

If you are well and want to keep well—

If you feel the need of greater physical and mental strength, with more nervous vitality—

If you are tired of taking harmful and useless drugs and medicines—

WRITE TO-DAY FOR OUR FREE BOOK

on "The Battle Creek Idea."

This book is the result of thirty years of experiment and research by the world s foremost dietitians.

It points a way to health, based on correct diet, that has been **tried** and **proved** by over half a million people.

It tells you how you can apply, in your own home, the same principles of right living that have made the great Battle Creek Sanitarium so famous and so successful.

It is a clearly written, beautifully illustrated health story that every man and woman should read, who values perfect physical and mental development.

You may be on the road to abounding and abiding health this time next month, if you will take the trouble to **write us to-day.**

Do not ask **why**; get the book and let it speak for itself. Use postal or above coupon, and address

BATTLE CREEK SANITARIUM CO., LTD.
DEPT. 92. BATTLE CREEK, MICH.

·AN·OUTDOOR·KINDERGARTEN·

GOOD HEALTH

A Journal of Hygiene

VOL. XLI MAY, 1906 No. 5

Heaviness in the Head

BY J. H. KELLOGG, M. D.

SUFFERERS from nervous dyspepsia constantly complain of a heaviness in the head. It is a pressure in the back of the head, heaviness in the forehead, and an uncomfortable pressure in the eyes,—a feeling that is relieved by pressing upon the eyes. Watch one of these sufferers three hours after eating, and you will see him rubbing his forehead. He seems to be confused, forgets and appears puzzled. Everything except the routine of things that he encounters every minute seems to be beyond his control. What is the trouble with that man? Autointoxication is one trouble. Another is a reflex disturbance growing out of irritation of the sympathetic nerves. The solar plexus, the great abdominal brain, lies right over the stomach. Its nerves are distributed about the stomach and within the stomach, and when the secretions of the stomach become extremely acrid,—especially in cases of hyperacidity, two or three hours after eating, when the maximum irritation is produced—the excitement produced in the brain by the rain of impulses sent up from the solar plexus to the brain so confuses and distracts that sometimes patients almost lose their mind. Often people in this condition become so irritable, so cross, so irascible, that it is almost impossible to live with them.

Another cause of this difficulty is the excessive accumulation of blood in the portal circulation. The large veins of the portal circulation are so capacious that they are able to hold all the blood in the body. But they are not meant to hold it all. These veins are supplied with muscular walls. Veins generally do not have muscular walls; they simply have loose, flaccid walls, like rubber tubes, not having the power to contract. The arteries contract. To illustrate that, here is a person who suddenly becomes frightened, and he turns pale. What for? Because the arteries have contracted under the influence of that emotion. The blood is squeezed out of the skin, so the skin is left white and pale. Now, again, a person under certain emotions will blush; his face will be flushed with a sensation of pleasure or of shame. Curiously these two very opposite sensations will produce flushing of the face. Some people do not blush very much; some people blush a great deal. Some people blush only on a little spot on the cheek, and some people blush clear to the forehead. Some blush all over the face, ears, and neck, and some blush clear to the ends of their toes. It just depends entirely on the peculiar construction of the nervous system.

While the blood-vessels are under the control of the muscles which relax or contract as circumstances require, this is not true of the veins with the exception of this large portal vein. The veins of the abdomen, these that are capable of holding all the blood of the body, are supplied with muscles, and a nerve, the great splanchnic nerve, controlling this vein, and causing it to contract or dilate as may be required. Thus this abdominal nerve and this great vein together become the regulator of the circulation of the whole body. To illustrate this, suppose a closed tank is connected with a great many little pipes through which the water runs out. The water runs out of the little pipes, and is collected in a trough and runs down to a pump, which pumps it up again into the tank. So the water is continually circulating. It drips down through the pipes into this trough, runs back to the pump, and the pump pumps it back into the tank. If the pump works well, the pressure in the tank will be high, so the water will spurt out through the little openings with a great deal of force. The pump represents the heart; this tank, the arteries. The little pipes here are the capillaries, through which the blood leaks out of the arteries into the veins, and the trough represents the veins through which the blood runs back to the heart.

But there is something more, an overflow tank connected with the trough. This overflow tank is like a large rubber bag. It is always full; but it can always hold more. This rubber bag, when dilated, can hold as much as the tank holds. That is the portal circulation. If one tank dilates, the other tank contracts. When the overflow tank — the portal circulation — enlarges, the rest contract.

Now, to illustrate. A man faints away, and he turns pale. You think he is just going to topple over. What shall you do with him? Lay him on the floor? No, there is something a great deal better than that. Seat him on a chair, and make him bend over. Get his head just as low as you can. That will revive him right away. Why? Because when he bends over this way, he compresses the abdomen and drives the blood out of the portal circulation back into the general circulation. If a person bends down to the floor, his face becomes flushed, because he compresses the abdomen. So the fainting person should be placed in a sitting posture and the head bent down. Put your hand on the back of his neck and push him down just as far as possible, and that will force the blood out of the abdomen up into the head, reviving him at once.

Heaviness in the head is often due to the fact that the blood has run away into this overflow tank, and left the patient without enough blood to run his mind wheels. The miller can not run his mill without water; when the pond gets empty, the water is all out, then the mill wheels stop. So the mind wheels are run by the blood, and the blood is the stream which runs the wheels of the body; and when there is not blood enough to keep the mind working, the patient has confusion; he loses his memory, and feels distressed, feels heavy, feels harassed, feels giddy and light-headed. Examine such a man and you find he has weak, relaxed abdominal muscles; when he stands up, his abdomen is pendulous, weak, flabby. His muscles are not strong enough to hold him up. When the patient sits down, it is in a relaxed way, and that expands the portal vein by relaxing it. The system depends on the tense abdominal muscles to support these vessels — not simply the splanchnic nerve, but the muscles as well.

It is important therefore for those suf-

fering from heaviness in the head, first to regulate their diet and reform their manner of eating; then to sit and stand straight constantly, to exercise so as to strengthen the abdominal muscles. Keep the overflow tank in shape, and a healthy degree of blood pressure will be maintained in all parts of the body.

Here Comes a Man

WHEN round you rave the storm
And winds run cold, then do not quail;
But spread your breast, drink in the gale,
And it will make you warm.

Never in toil give o'er.
Still tug at what you can not lift.
Squander your muscle — there's true thrift;
You'll get it back, and more.

Your enemies subdue.
March up, strike first, your fears dissembling;
You'll learn — unless they see you trembling —
They're more afraid than you.

Offense is best defense;
If you're besieged, come out and fight,
If foiled by day, come back at night.
Let grit make you immense.

Stout fingers will not slip.
The nettles stab the timid hand;
In firm fists they are soft as sand;
Whate'er you grasp at — grip

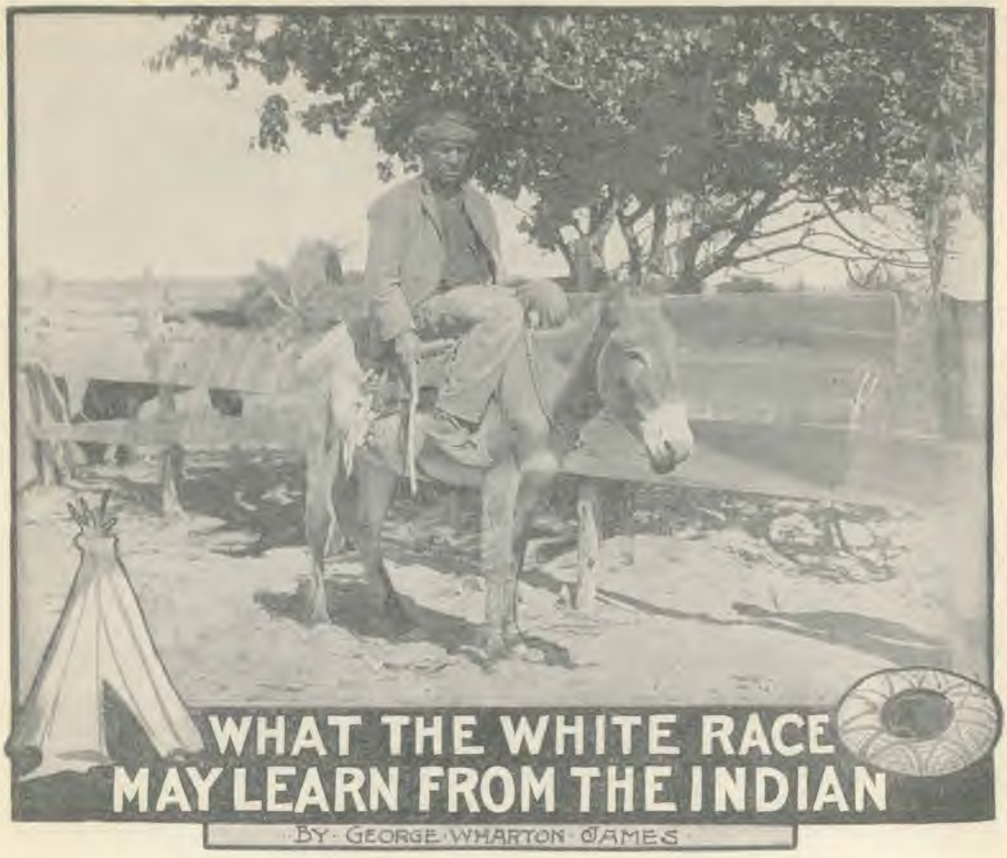
Fear not the goriest giant.
A straight-shot shaft his heart will find.
The elements themselves are kind
To those who prove defiant.

Of drugs and pills no wealth
Will bribe the microbe or the hearse,
But Red Blood beats the Red Cross nurse;
Stout lungs and limbs are health.

And never be dismissed
From getting your deserved desire.
Meet chill with heat, but fire with fire.
Resist, persist, insist!

Dare all. Do what you can.
Let Fate itself find you no slave.
Make Death salute you at your grave,
And say, "Here comes a man!"

—*Rupert Hughes, in The Twentieth Century.*



WHAT THE WHITE RACE MAY LEARN FROM THE INDIAN

BY GEORGE WHARTON JAMES

III

ANOTHER of the things I think we might well learn from the Indian is his kind of hospitality. Too often in our so-called civilization, hospitality degenerates into a kind of extravagant, wasteful, injurious ostentation. I do not object, on formal occasions, to ceremonial hospitality, to an elaborate spread and all that goes with it. But in our everyday homes, when our friends call upon us for a meal or a visit of a week, it is not true hospitality to let them feel that we are overworking ourselves in order to overfeed and entertain them. When one has plenty of servants, the overwork may perhaps not be felt, but the preparation and presentation of "extra fine" meals should be looked upon as an unmitigated evil that ought to cease.

Why is it that the professional lecturers, singers, and public performers generally refuse to accept such hospitalities? Every one doing their kind of work knows the reason. It is because this "high feeding" unfits them for the right discharge of their duties. To overfeed a preacher (and I've been a preacher for many years) is to prevent the easy flow of his thought. It is as true now as when Wordsworth wrote it, that "plain living and high thinking" go together. For the past five weeks I have been lecturing nightly in New York City. I am often invited to dinners and

banquets, but I invariably refuse unless I am promised that a full supply of fruit, nuts, celery, and bread and butter, or foods of that nature are provided for me, and that I am not even asked to eat anything else. I don't even want the mental effort of being compelled to refuse to eat what I know will render my brain "logy," heavy, and dull.

Then, again, when I am invited to a home where no servants are kept (as I often am), and see the hostess worrying and wearing herself to prepare a great variety of "dainties" and "fine foods" for me that I know I am far better without, what kind of creature am I if I can accept such hospitality with equanimity? I go to see people to enjoy them, their kindness, their intellectual converse, the homelikeness of themselves and their children. If I want to "stuff and gorge" I can do so at any first-class restaurant on the expenditure of a certain sum of money. But at the homes of my friends I want them; I go for social intercourse; and to see them working and slaving to give me food that is an injury to me is not, never can be, my idea of hospitality. I would not have my readers infer from this that I am unmindful of the kindly spirit of hospitality behind all of this needless preparation; nor would I have them think that I never eat luxurious things. I am afraid the editor of GOOD HEALTH would forego his kind friendship for me if he were to see me sometimes as I indulge in all kinds of things that "ordinary people" eat. But I do want to protest against the ostentatious and extravagant manifestation of our hospitality, and also the injuriousness of much of it when it comes to the food question, and to commend the spirit and method of the Indian's way. If friends come unexpectedly to an Indian home, they are *expected* to make themselves at home. They are not invited to the "festive board" to eat, but they are *expected* to share in the meal as a matter of course. Hospitality is not a thing of invitation, whim, or caprice. It is the daily expression of their lives. Every one, friend or stranger, coming to their camp at meal times, is for the time being a member of the family. There is no display, no ostentation, no show, no extra preparation. "You are one of us. Come and partake of what there is!" is the spirit they manifest. There is nothing more beautiful to me than to find myself at a Navaho *hogan* in the heart of the Painted Desert, and to realize that I am expected to sit down and eat of the frugal meal which the family has prepared for itself.

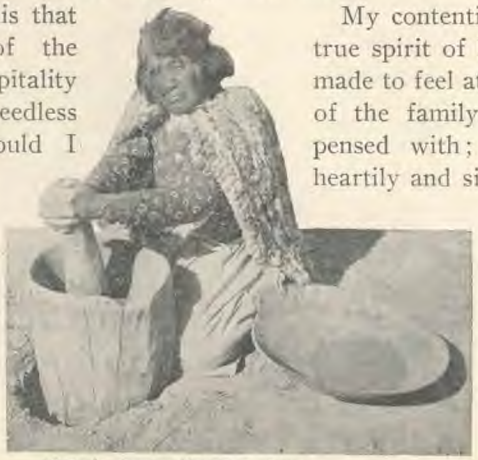


Photo by George Wharton James

Fig. 2. A Mohave Indian pounding mesquite beans (Colorado River) to give a pleasing drink to her guests

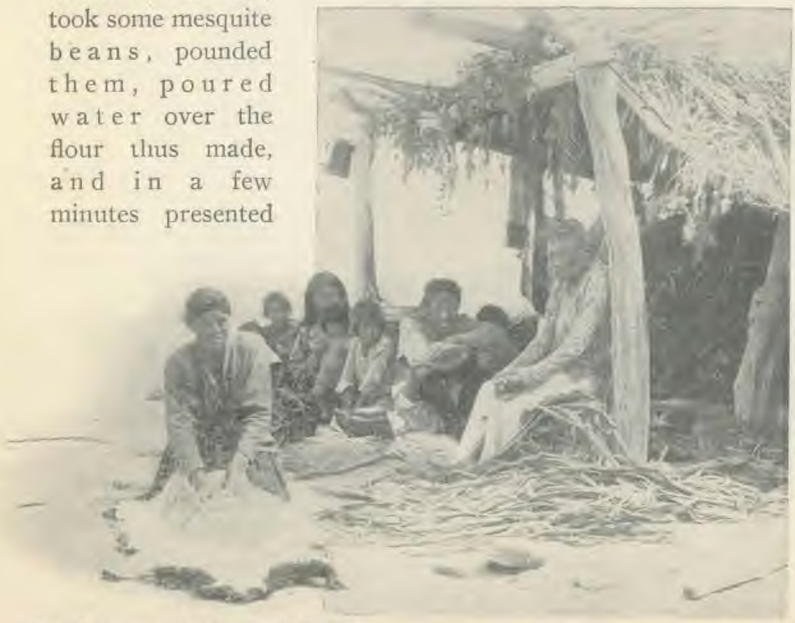
My contention is that this is the true spirit of hospitality. You are made to feel at home. You are one of the family. Formality is dispensed with; you are welcomed heartily and sincerely, and made to feel at ease. This is "to be at home;" this is the friendly, the human, the humane thing to do. Unnecessary work is avoided; the visitor is not distressed by seeing his hostess made to do a lot

of extra cooking and "fussing" on his account; his heart is warmed by the friendliness displayed (and surely that is far better than merely to have his stomach filled); and, furthermore, if he be a thoughtful man who values health and vigor rather than the gratification of his appetite, he is saved the mortification and the annoyance of having to choose between the risk of offending his hostess by refusing to eat the luxurious "obnoxities" she has provided (I don't know whether there is such a word), or offending himself by eating them under protest, and possibly suffering from them afterward.

Photo by George Wharton James

Fig. 3. A Navaho woman welcoming a white woman to her hogan

I was once visiting the Mohave reservation, at Parker, on the Colorado River. It was a very hot day, and I was thirsty, weary, and hot. As soon as I arrived at the home of one old lady, she at once went out of doors to her wooden mortar, took some mesquite beans, pounded them, poured water over the flour thus made, and in a few minutes presented me with a copious drink that was both pleasing to the taste and refreshing. Look at her face as she kneels before the mortar (Fig. 2). It is a kindly and generous face. She cared nothing for the fact that it was hot, or that it was hard work to lift the pounder and make the meal for the drink. She did it so simply and easily and naturally that I accepted the drink with the added pleasure that it was the product of a real, and not an artificial, hospitality.



Copyright, 1901, by James and Pierce

Fig. 4. "The Navajo in the heart of the Painted Desert expects you to partake of his frugal meal"

Few visitors to the Snake Dance and the different religious or thanksgiving festivals of the Indians of the Southwest have failed to observe the great amount of preparation that

goes on for expected but unknown guests. It is known they will come; therefore preparations must be made for them. Corn is ground in the metates, and *piki* is made.

An old Navaho Indian, pictured in the first illustration, is a wonderful illustration of the natural generosity of the aborigine before he is spoiled by contact with the white. Many years ago this man, who had large possessions of stock, sheep, horses, and goats, with much grazing land, several fine springs, was riding on the plateau opposite where the Paria Creek empties into the Colorado River. Suddenly he heard shouts and screams, and rushing down to the water saw a raft, filled with men, women, and children, dashing down the river to the rapids. When the raft and its human freight were overturned into the icy waters he did not hesitate because the people were of a different color from his own, but, plunging in, he rescued all those who were unable to save themselves, mainly by his own valor. It turned out that the strangers were a band of Mormons seeking a new home in Arizona, and, being met by the barrier of the Colorado River, had sought to cross it with their worldly goods upon the insecure and unsafe raft.

Copyright, 1901, by James and Pierce

Fig. 5. A Navaho chief's wife, whose dignity of demeanor and carriage have excited the admiration of many whites

What could they now do? Though their lives were saved, their provisions were nearly all lost in the raging rapids of the turbulent and angry Colorado. Bidding them be of good cheer, this *savage* Indian led them to one of his *hogans,* where immediately he set his several wives (for the Navahos are polygamists) to grinding corn and making large quantities of mush for the half-famished white strangers. He thus fed them, daily, for months. In the meantime he allowed them to plant crops (he finding seed) on his land, using for irrigation therefor water from his springs.

But he had not given himself proper care after his icy bath. His legs became drawn up by rheumatism, and from that day to this he has been a constant sufferer from his exposure to the cold water of the river and his after-neglect caused by his eager desire to care for unknown strangers.

The awful irony of the whole thing lies in the fact that in spite of what he had done, the recipients of his pure, simple, beautiful hospitality could not, or did not, appreciate it. He was "only an Indian." He had no rights. *They* were American citizens,—white people, civilized people. Why should this Indian own or control all this fine land, all these flowing springs, all these growing crops? It was wrong, infamous, inappropriate. Therefore, to make matters right, these grateful (?) civilized (!!) Mormons stole from him

the best part of his lands, and the largest of his springs, and for years laughed at his protests; until finally a white friend was raised up for him in a brave United States Army officer, now a general in the Philippines, I believe, who presented the case of the Indian to the courts, fought it successfully, and lived to see the Indian's wrongs in some small measure righted.

Fig. 6. Indian showing wonderful lower lung development as a result of nasal and deep breathing

To this day the Indian is known as "Old Musha," the name given to him by the people whom he befriended in their distress, because mush was the chief article of the diet that his hospitality provided for them.

Truly did Shakespeare write:—

> "Blow, blow, thou winter wind,
> Thou art not so unkind
> As man's ingratitude!"

That Indians know how to be beautifully courteous to their guests, I have long experienced. I have eaten at banquets at Delmonicos and the Waldorf Astoria (New York), the Hotel Cecil (London), the Grand Hotel (Paris), and many and various hotels between the Touraine (Boston) and the Palace of San Francisco and the Hotel del Coronado. And I have seen more vulgarity and ill-breeding at these choice and elaborate banquets, more want of consideration, more selfishness, and more disgusting exhibitions of greediness and gluttony than I have seen in twenty-five years of close association with Indians.

I was once expected to eat at an Indian chief's *hawa*, or house. The chief dish was corn, cut from the cob while in the milk, ground, and then made into a kind of soup or mush. A clean basketful was handed to me, with the intimation that I was to share it with two old Indians, one on my right, one on my left. I asked my hostess for a spoon, for I knew I had seen one somewhere on one of my visits. She hunted for the

spoon, in the meantime sending to the creek for an *esuwa* of fresh, clean water. When it was brought, she carefully washed her hands and then gave the spoon seven scrubbings and washings and rinsings before she handed it to me. I felt safer in using it than I do many a time at a city restaurant when the "culled bother" brings me a spoon that he has wiped on the "towel" which performs the multifarious duties of wiping the soiled table, the supposedly clean dishes, the waiter's sweaty hands, and — far oftener than people imagine — the waiter's sweaty face.

Photo by George Wharton James

Fig. 7. You are expected to eat what there is. In this case it is corn (roasting ears) cooked in an outdoor, underground furnace

Photo by George Wharton James

Fig. 8. My Hopi hostess, who kept the whole neighborhood quiet when I wished to sleep in the daytime

During the time we were waiting for the spoon the old Indians by my side sat as patiently and stoically as if they were not hungry. When the spoon was handed to me, I marked a half circle on the mush in front of me, in the basket then divided the remainder for them. Each waited until I had eaten several mouthfuls before he inserted his own fingers, which served as his spoon, and then we democratically ate together.

Now, to me, the whole affair showed a kindly consideration for my feelings that is not always apparent in so-called well-bred strangers of my own race. I've had many a man light a cigar or a cigarette at the table at which I've been compelled to sit in a restaurant with never a "By your leave!" or "Is this agreeable?" From the Indian we imagine that we ought not to expect much of what we call "higher courtesy,"— yet I find it constantly exercised; while from the civilized white race we expect much, and, alas! often are very much disappointed.

An illustration of the most beautiful kind of hospitality and courteous kind-

ness was shown by the old lady pictured in Fig 8. I was visiting the Hopi pueblo of Walpi for the purpose of studying the secret ceremonies of the underground *kivas* of the Antelope and Snake clans prior to the Snake Dance. For fifteen days and nights I never took off my clothes to go to bed, but went from kiva to kiva, witnessing the ceremonials, and when I was too tired to remain awake longer, I would stretch out on the bare, solid rock floor, my camera or my canteen for my pillow, and go to sleep. Occasionally, however, when something of minor importance was going on during the day time, I would steal upstairs to a room which I had engaged in this woman's house. As soon as I stretched out and tried to sleep, she went around to the children and the neighbors and told them that the "Black Bear"— my name with these people — was trying to sleep, and was very, very tired. That was all that was necessary to send the children far enough away so that the noise of their play could not disturb me, and to quiet any unnecessary noise among their elders. This I take to be an extreme courtesy. I know people of both "low and high degree" in our civilization who resent as an impertinent interference with their "rights" any suggestions that they be kind or quiet to their neighbors,— much less strangers and aliens. And for my own sake I would far rather that my children possessed the kindly sympathy shown by these Indian children than have the finest education the greatest university of our civilization could grant without it.

Water-Drinking

In cases of obstinate constipation, due to inactivity of the liver, water-drinking is of advantage, if the stomach will bear it. The quantity of water which can be taken will vary from a single glassful before breakfast to six glassfuls a day in the intervals between meals. Repeated experiments by the most eminent physiologists have shown that the liberal use of water as a beverage is a great promoter of vital activity, not only of the liver, but of other vital organs. This measure must not be carried to excess, however; it should be discontinued if it disturbs digestion.

Water-drinking has been very much abused within the last twelve or fifteen years. In cases of dilatation of the stomach, which is very common among dyspeptics, constituting nearly one-half the entire number, copious water-drinking is often productive of great mischief. The dilated stomach being unable to absorb fluids rapidly, and retaining for a long time the large quantity of water introduced, becomes abnormally distended and overweighted, and the patient's condition is thus aggravated rather than benefited. The use of the stomach-tube in washing out the stomach largely obviates the necessity for copious water-drinking. In cases in which water-drinking must be interdicted on account of dilatation of the stomach, a sufficient amount of moisture may be supplied by slowly introducing a quart or two of water into the colon daily, preferably at night, allowing as much of the liquid to be absorbed as possible.

"CAN'T I go out and play in the garden, mama?"

"Certainly not, child. You must stay in and study your nature books."—*A True Republic.*

"MANY a man thinks he is patient with pain when he is only perverse in eating pickles."

Three Generations of Vegetarians

NEARLY seventy years vegetarians. Sixty-six and sixty-eight years without tasting flesh, fowl, or fish. Such, in brief, are the respective records of Mrs. P. A. Crafts and her brother, William Penn Alcott.

It was in hardy, rigorous New England that the foundation was laid for the development of three generations of vegetarians in the Alcott family. Born in 1798, when the republic was in its infancy, Dr. William A. Alcott doubtless imbibed in childhood the spirit of independence, of freedom and hardihood. In 1830 he gave up the use of flesh foods entirely. His wife, Mrs. Phoebe L. Alcott, joined with him in this endeavor to exclude the unnatural and the unwholesome from their dietary. "During her entire married life," writes the daughter, "she used flesh food very rarely, banishing it from her own table and seldom partaking of it when visiting friends. Many years after her husband's death, in 1859, when between seventy-five and eighty years of age, she gave up its use entirely, and since then has been a strict vegetarian. She is now ninety-three years old. Her health, always good, was wholly unimpaired up to the age of eighty-eight.

"Though suffering from rheumatism now, her exceedingly simple diet—fruits, vegetables, cereals, bread and butter, and chocolate—has kept her digestion in excellent order. Her sleep is in general refreshing; her mind is active, and her head clear. At ninety-three she is capable of keen judgment, strong sympathy, or quick indignation. The 'harp of a thousand strings' has kept wonderfully in tune, thanks to intelligent obedience to physical law."

The principles of vegetarianism had

become well established, therefore, by the time of the birth of the two children, in 1838 and 1840. Realizing that the principles of health reform which had been instilled into their daily practises were great truths, the parents, with all loyalty to these truths, put them in practise in the training of their children. Abstinence from flesh foods was taught, and rational precepts were employed to cause the children to see for themselves that flesh was never meant for food, that it is not a necessary article of diet. The result is well expressed by Mr. Alcott. He says, "As my sister and myself never knew the taste of flesh, fish, or fowl, we have had no difficulties to overcome. We were brought up to relish unbuttered bread and the simplest food. Prepared cereals were unknown in my childhood.

"I have never been confined to my bed by sickness one whole day since I had the croup at seven. Have never taken any medicine. To this time, as with Cornaro, dry bread is so sweet I am in danger of overeating, and I can enjoy a meal of vegetables, fruits, or cereals, unsweetened, unsalted, or unheated."

It is not only in the "sequestered vales" that Mr. Alcott has pursued the even tenor of his way in matters of diet. He has been a vegetarian in Greenland, a vegetarian in Jamaica, and from the Rocky Mountains to Damascus and the deserts of Arabia. He has lived a protest to that philosophy which says consistent vegetarianism is incompatible with natural circumstances. "Occasionally pinched on diet for a meal or two," he says, but still can assert that he never tasted flesh, fowl, or fish.

But abstinence from meats is not alone responsible for the excellent physical condition they have enjoyed. Tea, coffee, and condiments, as well as pickles, sauces, and vinegar, have been eschewed. "And I have been exempt from the consciousness of possessing a stomach," is the resultant testimony of Mrs. Phoebe L. Crafts, "so perfectly have the digestive processes gone on. My appetite has been uniformly good, and my simple food has been near enough to nectar and ambrosia to give me perfect satisfaction. That the future is with the vegetarians I have no shadow of doubt. Already the current is quickening and sweeping in many from all lands to a belief in this reasonable, humane, and heaven-ordained system."

The daughter of William Penn Alcott, Mrs. Mary Ault, has carried the principles of vegetarianism into the third generation. Her home is in Lowell, Ind. The father lives in Boxford, Mass. For more than forty years he has been engaged in preaching, and for twenty years has driven four miles to his church for every service, rarely permitting the weather to interfere with his pastoral work. Though sixty-eight he looks forward to many remaining years of usefulness in his gospel work. R. O. E.

"God hath his uplands, bleak and bare,
Where he doth bid us rest awhile—
Crags where we breathe the purer air,
Lone peaks that catch the day's first smile."

Seeing through Another's Eyes

THERE is nothing new in the idea of seeing through another's eyes in the figurative sense, but as an actual fact the exercise of sight by the use of the eyes of other than one's own is quite a novelty. According to newspaper report, a merchant living in Washington, D. C., who had been made totally blind by the destructive action of lye upon the cornea of his eye, has had the diseased cornea removed, and replaced by the cornea taken from the eyes of a Belgian hare, so that he may be able to see again, but through the hare's eyes instead of his own. The right to sacrifice an animal for such a beneficent purpose no one could possibly question. Nevertheless, one can not repress a feeling of sympathy for the poor creature which must thus go forever into the darkness of night.

The operation above referred to was the occasion of the writing of a sweet and beautiful poem by a well-known New England lady: —

TO A BELGIAN HARE

BY MARGARET B. FISHER

UPON the table, thou and I,
Dear little friend, together lie.
Thy soft warm fur is close to me,
Thy clear bright eyes — Ah! can it be
That they will give to me my sight
And leave to thee blackness of night?
Dear little friend,
Thy journey's end
A blessing brings,
Gift fit for kings.

If skill and nature both combine
To make this wond'rous gift all mine,
Then may I gaze with eyes as pure,
With sight as keen, serene, and sure,
And looking through thy sinless eyes
Thank God for this thy sacrifice.
Dear little friend,
Is this the end?
All light for me?
All dark for thee?

An Extract from the Report of the Investigators of the Reform Dress Costume for Japanese School Girls

[THE whole civilized world has been startled, delighted, and amazed at what we have witnessed in the Far East in the last generation. A great nation, numbering 40,000,000 or more, emerging as by a single bound within the short space of one generation from the darkness of heathenism into the light of civilization.

In some respects the Japanese have shown themselves far wiser than their teachers, as they have carefully chosen the good, and are leaving out the evil. This is particularly shown in the character which has been manifested in relation to the adoption of Western habits of dress, especially the dress of women. Some time ago the Japanese governor appointed a committee of intelligent and cultivated Japanese ladies to study this subject of dress, and make a report upon it. These ladies fortunately came in contact with Miss Kara G. Smart, white ribbon missionary to Japan. Miss Smart, having visited the Battle Creek Sanitarium, had become acquainted with the system of dress which has been perfected in that institution through the efforts of many workers during the past forty years. She had herself adopted this style of dress, and it was the beauty and healthfulness of her garments which attracted the attention of the committee of Japanese ladies who had the

Japanese Girl Wearing Native Costume

investigation of this question in hand. The result of the conference was the adoption of the essential features of the dress which is known as the Battle Creek Sanitarium dress system.

The following translation, made by a Japanese, of an editorial in the *Home Weekly*, Jan. 27, 1906, a journal published by the Woman's University at Tokyo, has been received from Miss Smart by GOOD HEALTH.

This journal devoted several pages of the issue named to the subject of dress reform. The article translated is only one of a number devoted to this subject.

In connection with the above article Miss Smart says:—

"I am pleased to inform you that on Dec. 29, 1905, I received the order for patterns, chart, etc., sent you last August, the same having been sent around by Europe instead of direct, via Seattle or San Francisco.

"In accordance with my promise, I am sending you half a dozen photos giving views of the new reform dress for Japan, also two photos of myself in costume as you requested. I enclose you also a translation which I have just made from the Woman's University weekly paper, which sets forth very clearly many interesting facts in regard to the dress-reform movement in that institution. I think it will be of more interest to your readers in GOOD HEALTH than anything I could write, as it is distinctly Japanese. The importance of this dress-reform movement will be appreciated when it is known that the Woman's University of Tokyo is the highest government school for the education of women in Japan, and that it has an enrollment of over 1,300 students. These students are young women from the better and most well-to-do classes of the people, and come from all parts of the Empire. Other schools look to them for leadership in many things. No less than six other schools have already sent for patterns and sample suits of the new costume."

It is a fact that the Japanese have taken hold of this question of dress reform in a thoroughly practical, sensible, and scientific manner, and having begun with school girls, will undoubtedly extend to all classes, as by this means the new dress will be introduced into every home.]

THE necessity for a reform in our costume has many times been published by learned men and specialists, both theoretically and philosophically.

We are going to make public the points in which we feel we first need reforming, and tell how we have tried to replace them, to some degree, with new ideas. We believe the reformations we have made ought to be widely applied, notwithstanding the inability of women of all classes, with widely diversified occupations and standards of living, to adopt them entirely.

We well know the difficulty of securing a system of reform dress which will be acceptable to the general public. The importation of foreign ideas recently revived the use of the lower garment of olden times, which is no other than the *hakama*. In the earlier days of its adoption, the hakama was censured because of its ungracefulness and lack of economy, but it now has a wide use because of its practicability. The day has also come when society acknowledges its

superiority in point of beauty to the old-style costume, which, when fanned by the wind, or thrown into a disordered condition through exercise, so greatly exposed the naked lower limbs. People have also, doubtless, become aware of the cheapness of wearing a *hakama* when compared to getting an *obi*.

We expect some censure, from the standpoint of beauty and economy, against our reform dress costume. That a strange thing throws a strange shadow can not be helped, but we hope for just and open criticisms. We do not at all shrink from future corrections, for we know that our new costumes may be imperfect in some respects. Moreover, it is a great economical burden to reform all at once, and it may be expected to be accomplished within one hundred years.

When one has resolved to adopt the reformed garments, she will be able to make certain changes in her apparel, beginning with the children's clothes, which are much more easily made. We are also taking steps, one after another, to apply the reformation within the limit of our finances, by changing the old-style Japanese *kimono* into a waist-coat, or changing an "azuma-coat" into a skirt, or purchasing reformed gowns with the money we would have expended for a new kimono. We herewith give more minute remarks under separate heads.

First: From the standpoint of health, what features need to be reformed?

The costumes of to-day are very unnatural. They were not intended for common wear, or for every individual, but have been thus used because they have a uniform shape and require a knowledge of the simplest sewing. When in use, these garments are confined to the body by means of several kinds of bands, which restrict the movements of the body and hinder the free circulation of the blood.

Japanese Students Showing Reform Dress

The underclothes and upper garments overlie each other in such a manner as to produce a downward drooping of the shoulders, which hinders a free exercise of the chest, not infrequently causing a too narrow chest, curvature of the spine,

etc. Recently, when taking the measurements of our girls who were intending to put on the Reformed Costume, we found very few straight spines and level shoulders, showing how great a wrong the unnatural clothing had done the body, which, in consequence, had become more or less deformed.

The Japanese costume of to-day is not able to fulfill the double task of keeping the body warm and free from the taking of colds. In the first place, the loose, open skirt exposes the limbs to the weather. During the cold winter season the lower part of the body is often chilled in consequence, which frequently causes diseases of the abdomen, bad circulation of the blood, serious headaches, and other troubles. As many know from experience, in the summer, as the clothing does not properly cover the body, dust and other unclean substances, and in some cases poisonous germs find lodgment thereon and produce a serious condition. To avoid these dangers the reform underwear, though of lighter-weight material, should be put on in summer as well as in the winter. If it is not desired to adopt the entire reform costume, the first undergarment, called a Combination Suit, may be worn, or it is suggested that a kind of trousers, such as appeared in another issue of this paper, may be substituted.

Miss Smart
Front View of Reform Dress

Second: From the standpoint of economy.

1. The difference in expense between the old and the new style of costume is now the question. It is a difficult one to solve, because the materials differ so widely, in accordance with the life, occupation, etc., of the different classes. Yet, from our own experience, covering two or three years, we realize the cheapness of the foreign style costume in comparison with our own. The following items will show the difference in cost between the Reformed Dress Costume, designed and made through the kind effort of Miss Smart, and the Japanese costume of to-day.

[NOTE: In the original article here occur two very long tables giving in detail a list of the different articles of wearing apparel in each style, with itemized cost of each item. Briefly summarized, we find the following: In the Japanese style of costume for students, there are nine different garments, besides three bands of varying widths, which are wound several times about the trunk. The total cost, exclusive of *geta*, is Yen 25.02. In the reformed style of dress, there are six garments, exclusive of shoes, at a total cost of Yen 17.78.]

The Japanese style table does not include the fees for sewing, while that for the foreign style does (Yen 5.00), so that the latter will cost even less if

made at home, as we are planning to do in the future.

2. *Fashion and Economy.*— As the styles so often change in the West, some may think that a foreignized style costume might cause a strain on our finances, if we adopt it, but what we recommend here is not for social use. Again, the resemblance to the foreign style of dress does not require the adoption of its defects, too, and it is therefore advisable not to contrive another design for the present.

The costume, as planned for us, can be made out of our home productions; namely, Japanese serge, *meisen, hachijo, itoori,* etc. All of these can be satisfactorily used for making the reformed dress costume.

Speaking of "fashions," such a changeableness as we find in the Parisian styles deserves our warning, but, at the same time, we must not forget to remember the indirect effects caused by the uniform style for generations in our own country. Think of the priceless treasures that are locked away for life in the drawers of the *tansu,* and all because of over-preparation of clothes for a wedding. This bad custom ought to be corrected, and we should also consider how to utilize our property.

Hats and Milliner's Charges.— Any kind of cap was worn with the old-style costume, but these were quite inexpensive, varying in price from Yen 1.80 to Yen 3.60. The hat for the reformed costume, which appears in this paper, was made out of pieces of the same material as the dress, and it is not difficult to make at home. The milliner's fee is what makes it dearer than the old-time style. Those well trained in foreign sewing can modify the shape now and then, and we recommend that every one learn how to do foreign sewing in the future.

Japanese Student Wearing Reform Dress

Third: From the standpoint of convenience.

1. *Activity.* — The real cause of the reformation lies in the hindrance to activity in the Japanese costume, of which the long sleeve and loose, open skirt are the most objectionable features. How much inactivity is caused by these alone! This inactivity naturally makes inactive citizens, who in turn may produce an inactive nation!

2. *Time Expended in Dressing.*— Owing to its simplicity, the kimono should take less time to don than the reformed costume, but if the time required for the frequent redressings, retyings of the *obi,* or refixings of the *hakama,* is taken into consideration, experience proves that the Japanese costume is the more inconvenient.

3. *Keeping in Order.*— The Japanese costume, which gives the wearer a very untidy and awkward appearance, when donned after being put away in irregu-

lar folds, naturally requires a lot of time to keep in order, whereas the reformed costume, after being dusted and brushed, can be hung up out of the way. How it is the more convenient needs no more words.

4. *Laundering.*— With the Japanese costume, it is necessary to rip it all apart and to wash each piece every spring and autumn. With the foreign and reformed costume, as the undergarments are all one thickness only, they are very easily laundered. The outside gown is difficult to wash, but if good cloth is used, it can be kept clean for several years by mere brushings.

5. *Construction of Garments.*— The next question to be considered is, Which is the more convenient to make? On first thought, the answer would naturally be in favor of the Japanese costume, but we must consider the results of the training handed down from ancient times. Supposing one is entirely ignorant of Japanese sewing and wishes to learn it. Three years are necessary to train her properly in this kind of sewing. After four years' experience in a special study of sewing, and opportunities to learn foreign sewing, the last does not appear so difficult. An equal, or even less, amount of zeal, will enable one to become well trained in foreign sewing also.

Back View of Reform Dress

Fourth: From the standpoint of the beautiful.

1. *Harmony in Colors.*— The combining of harmonious colors in the garments and the relation of these colors to the complexion and the contour of the face has been almost overlooked in the old-style costume, but this is essential from an artistic standpoint, and has an influence on the manners also.

2. *Harmony with the Body.*— The costume of to-day does not harmonize with the body. As Dr. Nagai says, "The civilized countenance and the garment, which is an inheritance of old Japan, lack harmony, as much as if some noble lady were to assume the costume of the lower class, or some base woman to appear in a school-girl's dress — they are equally inappropriate in appearance and awkwardly affect the manners." Here we would remark that for persons as short as the Japanese it is advisable to use striped or gray clothes, and in making the reformed costume to place the belt, or division line, between the upper and lower part of the garments, a little higher up on the body.

Fifth: The reformed dress as it appears in the pictures.

The reformed dress costume photographed and shown by figures in this paper is the one done through the efforts of Miss Smart. One glance suggests a likeness to the conventional foreign style,

but the method of making differs considerably, in that every obstacle to the free exercise of the body appearing in the ordinary foreign dress, has been eliminated.

Its chief elements are — a combination suit and other underwear without restricting bands, all garments fitted according to the natural outlines of the body; and no stays of any kind about the waist — the corset not being used at all.

The Need of Appetite Juice

BY D. H. KRESS, M. D.

Medical Superintendent of the Sydney Medical and Surgical Sanitarium, Wahroonga, N. S. W., Australia

APPETITE juice is of the greatest importance in digestion. When food is introduced into the stomach unconsciously, its mere presence creates a flow of stomach juice. But the juice secreted is not what is known as appetite juice.

What is appetite juice? Do you recall when you were but a boy or girl, perhaps when coming home from play just before dinner, how the mere smell of the food or the thought of what mother might have for dinner caused a copious flow of saliva? That was appetite juice. This secretion was not confined to the mouth, but could we have obtained a glimpse of the stomach we would have found the gastric juice trickling down its walls as well. The whole digestive apparatus, in fact, was getting into readiness for the reception and digestion of the expected food. Appetite juice has many times the digestive power possessed by juice mechanically produced by the mere presence of food in the mouth or stomach.

In the past much ignorance has existed regarding the wholesomeness or nutritive value of foods. The only thing that has been consulted has been the appetite. Our fathers ate what they relished. Hard work gave them a relish for simple foods, and fortunately poverty made simple foods and few varieties a necessity. Consequently they did not suffer with indigestion as a rule. Later, luxury and inactivity came in. Delicacies, complicated dishes, and a greater variety of unwholesome foods were introduced, but appetite was still the guide in its selection. As a result too many kinds and unwholesome foods were eaten, and indigestion became prevalent.

To correct this state of affairs something had to be done. Naturally the attention was called to the need of studying the nutritive value, combinations, and wholesomeness of foods. But many, after eating foods more wholesome and more carefully combined, did not realize therefrom all the benefit they desired or expected. This was due to the fact that the food, although more wholesome and easier of digestion, was really more difficult to digest because of the absence of the much-needed appetite juice. The food was not relished. While it is well to make a study of the foods and eat that which is wholesome and good, it is unwise to ignore the more important factor in good digestion,— the stimulation of the appetite, or the production of appetite juice. Man must relish what he eats. The gourmand or glutton is able to eat unwholesome foods and to digest double the quantity of food he actually needs, simply because he eats what appeals to the palate and thus creates a copious flow of appetite juice,— a juice which is capable of digesting

almost anything. He puts on weight, and appears the picture of health. But this can not last; it will result in injury and premature wearing out of the digestive organs, therefore can not be recommended.

And yet the need of having foods that are appetizing can not be ignored by the food reformer or he will find his reforms a failure. It will be observed that the ordinary meal taken by those who pay no attention to what they eat, begins with some tasty soup and usually ends with a sweet in the form of a pudding or some other pastry. The meal begins and ends with a pleasurable sensation, which stimulates the appetite centers, and causes a copious flow of appetite juice. While it is unwise to use the harmful things that are eaten by these, we must recognize the need of providing suitable and wholesome substitutes that are pleasing both to the eye and the palate. A *small* quantity of tasty soup, though not strictly physiological, or something else that is perhaps not too wholesome, yet relished, at the beginning of a meal will often create an appetite which will lead to the enjoyment of the entire meal. Such appetizers should be used very sparingly, and, in fact, in time they may be dispensed with entirely.

Fast and fixed rules in diet can never be followed, for the simple reason that man is not a machine. Each one possesses likes and dislikes peculiar to himself that must be respected at the table as far as consistent with good sense. Gradually the appetite may be educated to relish only that which is simple and best. For those who are ill it is especially important not to make eating mechanical. It would be better for them to eat some things not quite so wholesome, but which are relished and will stimulate the secretion of a good quality of saliva and gastric juice, than to eat better foods which are not relished and therefore poorly digested because of the absence of the important appetite juice. When the mind rebels against food, the stomach rebels against it also. Some years ago a patient was very ill; in fact, on the point of death. He was given up by physicians and friends. The very best foods were loathsome to him. He could not look at the wholesome foods he previously relished, foods which he now enjoys and has at nearly every meal. His good wife tried in every conceivable manner to prepare something that would stimulate his appetite. There can be no doubt that the effort on the part of his wife helped to save the life of her husband. He is now in health, and no longer feels the need of these appetizers, but is able to relish more physiological foods eaten in a more physiological manner.

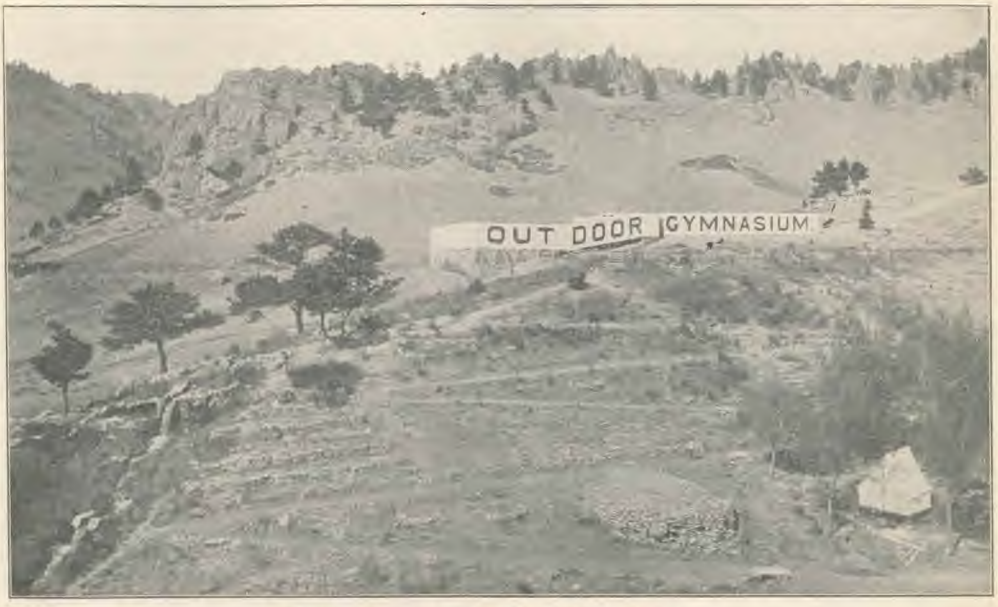
It is not wise or best in every case for those who have diseased digestive organs to make too many sudden changes at once; for often, owing to the diseased condition of the stomach, the mere presence of food produces very little even of the inferior gastric juice. About all the juices they can rely upon in digesting food are those which are formed by stimulation of the appetite. Not only nutritious and wholesome foods, but wholesome foods attractively and tastily prepared, so as to tempt the appetite and lead to real enjoyment of what is eaten, must be provided for dyspeptics. When this is done, there will be no loss of weight as a rule, even when changes in diet from unwholesome to more wholesome foods are made. A good rule to follow is to eat that which is good, but from the numerous foods which *are* good, at each meal eat that which you relish most. This principle was laid down as a dietetic guide to man at the beginning. Man was placed in

his Eden home and surrounded with trees both pleasant to the sight and good for food, with the request and privilege, "Of *every* tree thou mayest freely eat." All were *good* for food, but from the good, man was at liberty at each meal to eat what he relished most. It is necessary for man still to continue to do this in order to retain his health, or to regain it when lost.

The Outdoor Gymnasium

BY HOWARD F. RAND, M. D.

St. Helena, Cal.



Outdoor Gymnasium, Boulder (Colo.) Sanitarium

IN this age everything goes with a rush, and all the tendencies of "civilization" seem to be to drive and tear and to work away from natural channels and agencies. People are deprived of pure air, water, food, and sunshine, and of the "simple life," and forced into social circles, fancy functions, and aristocratic banquets.

Thousands are imprisoned behind the bars of banks, railroad, wholesale, and other business offices, and legions of clerks, factory hands, and other indoor workers in our commercial centers are practically unacquainted with the natural world. At night, when they crawl away from these cages, many have all they can do to get home. There, many are again closely confined, and, as if to add fuel to the flame, will light cigars, cigarettes, or pipes, and puff smoke and nicotine, the more completely vitiating the little air they have. At an unseasonable hour the stomach is gorged with indigestible viands, mixed with irritating and alcoholic preparations, the effect of which is to anesthetize the body, and then the victim dozes off, to be wakened by horrible dreams, headache, bad taste in the mouth, inability to breathe, etc.

Open-Air Gymnastics

Multitudes, instead of remaining at home to get rest at this time, go to the theater, where they inhale air contaminated by the fetid exhalations of their countless more or less diseased fellows. Then perhaps they swallow with intoxicating beverages, oysters, lobsters, or other scavengers, "live" cheese, chili sauce, and the mysterious hot *tamale;* and after the revel they "turn in" to their sleeping apartments, but for little repose. The day approaches, and they must soon again take up their heavy burdens. Circumstances require them to go, and life habits compel them to lag and drag, carrying out the same program day after day.

Many, of course, break, and at an early age are unequal to the propositions and perplexities they should ably handle. They have many grand opportunities and privileges that they are unable to grapple with or handle.

These are among the superior causes of the existence of the noble and famous Battle Creek Sanitarium and her offspring, now scattered all over the earth. They are filled with people who have been wrecked by the great monster beautifully named "The Great Advantages of the Higher Civilization and Social Functions of Life."

In contrast to this awful whirl is the view of surroundings increasing our God-given powers in social, scientific, and all other good lines of the highest degree; depriving us of none of the great blessings that come through natural agencies.

The outdoor gymnasium is one of these most valuable, remedial, and preserving provisions of the sanitarium regimen. The first illustration clearly shows the situation of the one of which we write. It is situated on a foot-hill, and is truly a light that can not be hidden. It may be seen a great distance when coming into our beautiful little city via the Colorado & Southern Railway or the Union Pacific, and is known by its name on the high board wall enclosing it, with all its up-to-date gymnasium apparatuses, and at one end, a large pool through which a stream of refreshing mountain water continually flows.

Here the men patients, clothed with simple trunks, bask in the sunshine on the sand which covers the ground, follow the trainer through the different lines of gymnastic work, finally plunging into the pool and coming out ready to be dried and thoroughly rubbed. Donning their simple apparel, they can, if they choose, proceed up the mountain, and gather beautiful wild flowers and rest the eye on the surrounding scenery.

The outdoor gymnasium is especially

helpful in the treatment of women. It is very difficult to get them to dress properly when taking physical exercise, and they are "so afraid" of exposing themselves to the sunlight and "ruining" their complexion. But the beautiful physique of some of our young women who have trained in this line, and the assurance that they can so develop themselves, lead them to make short trips to the gymnasium, and gradually they grow willing to be delivered from close wrappings and expose themselves to the sunlight. The pleasure is enticing; enjoyment of exercise in this place without the restriction of tight clothing rapidly increases, and desired results are obtained by this means in less time than in any other line of training. The great essential is to have the person in natural condition when exercising, so that all the organs of the body may move freely and naturally, without let or hindrance. Number seems to increase the enchantment; hence the more readily do the timid and backward take the first steps.

At first it is impossible for many to expand at the waist line; but a jump into the pool, the temperature of the water being 70° to 75°, causes them involuntarily to inflate the respiratory organs and through this and special training, deep breathing becomes habitual in less time than it would in any other way.

We aim to have our patients spend at least one hour, twice a day (forenoon and afternoon), in the gymnasium.

Soon after beginning this course, the patient's skin, and mind as well, will be found clearing up. He will say his appetite is better, and that he sleeps more soundly, and is gaining weight and strength. The surface becomes brown in a short time, but as soon as pigmentation ceases, there is a natural, pearly-white hue — a sure indicator of health.

PAGEANTS of color and fragrance
Pass the sweet meadows, and viewless
Walks the mild spirit of May,
Visibly blessing the world.
— William Ernest Henley.

The Cleansing of the Cellar

Your cellar should be as dry and clean as your bureau drawer. If it has not a cement floor, see that it is properly drained. It should be thoroughly sunned and aired every few days, to rid it of the poisonous exhalations of the damp earth and vegetable matter. If supplied with windows (as it should be), open them wide and let a current of air through even in the coldest weather. The vegetables in the bins may be covered with sacks or old pieces of carpet to protect them from chance of chill during the procedure.

As the weather moderates in the spring, this should be done each day, and as early as possible the real spring cleaning should be done and all signs of winter storage cleared away. It is better to begin here if there be any chance that one's zest will fail after the other rooms of the house have been cleaned and the keen edge of enthusiasm worn off by the continued strain.

Begin by flooding the place with Nature's disinfectants — fresh air and sunshine. Take all the boxes, barrels, and movable bins out in the open air while the walls are brushed down and the floor is thoroughly swept. After the floor is swept, sprinkle it with copperas water, which is not only a disinfectant, but will drive away rats and vermin. It is a good plan to whitewash the walls and ceiling with a strong solution of copperas, say two pounds to the gallon.

Next wipe off the shelves and scrub the stairs in strong soapsuds. Remove all suspicion of dust or mold from jars and bottles of fruit before replacing them on the shelves. See that no bit of vegetable matter that is not in a perfectly healthy condition is returned to the place.

Do not put anything back into the cellar that is useless or does not belong there. That pile of empty bottles, the old coffee-grinder, the broken ice-cream freezer, the rusty steamer — throw them away! Give them to the ragman — anything to get rid of them — anywhere so long as you do not throw them where they will be a blot on the landscape.

Active Treatment of Muscular Rheumatism

In the *Boston Medical and Surgical Review,* Cates presents some principles of treatment of myalgia which may be new to some, but the value of which has been demonstrated by experience. He asserts that the successful treatment of muscular rheumatism hinges on just two things,— the proper mastication of food, and proper exercise. Particular instruction is given concerning exercise, the principle being to find out what muscles are affected, and then to use such exercises as will bring them most naturally into action.

In his directions as to diet, one involuntarily thinks of Horace Fletcher. Mr. Fletcher has taught us that proper mastication means the extraction of all the natural flavor of the food, and that if this be conscientiously done, nothing that is injurious will be allowed to pass into the stomach. Pawlow has also demonstrated that the stomach prepares exactly the proper quantity and quality of digestive juice for food that is thus prepared for it.

The physician's duty is to instruct his patients how to masticate, for it is an art that must be learned. "If, as is often the case, the patient has no teeth, have him get a set. It is not worth while to waste time giving digestants when the teeth are out of order. Teach the patients that the stomach and intestines have no teeth, and are only for digesting food."

One of the best things about this treatment of muscular rheumatism is that it is as sure a prophylactic as it is a cure.

The Use of Milk by Savages

It is a fact that milk is very little used by wild or semi-savage tribes. Most savages who use milk at all — and the same may be said of nearly all Orientals and of many Europeans — decline to use it in its natural state, but allow it first to undergo fermentation, by which soft curds are formed, which are easily broken up in eating. Milk taken in this way, that is, in the form of curds or sour milk, is much less likely to give discomfort than when taken in its ordinary fresh state. Probably the majority of human beings who make use of cow's milk take it in this way.

A man carrying a dozen or more pans of sour milk, which he sells under the name of *matzoon,* is a common sight in the streets of Constantinople. One always finds sour milk in the dairy shops of German cities.

Dress for the Nurse

The personality of the individual is more important and exerts a far greater influence than many of us are aware.

A nurse should have in her carriage and manner of dress that neatness and tidiness which can not but add dignity to her profession. Her deportment, attire, and mode of dressing her hair should be in harmony with her work.

In most hospitals the usual requirements are that the hair be dressed in a simple manner and worn off the face. This is not an arbitrary regulation, since an elaborate dressing of the hair means the devotion of a great deal of time, which the duties of a nurse will not allow; while a neat, simple style is more in keeping with her work, and lends dignity to her professional appearance.

Her hair ought to be brushed off the face for two reasons. First, because curls and fringes require special attention to make them really becoming. Second, and most important, any fringe or loose ends of hair falling around the face or about the head may prove a source of infection to her patient, as such locks readily catch dust particles, which are easily scattered from them upon wounds and dressings.

The hands and feet should receive proper care and attention. Constant washing and the use of disinfectant solutions will often irritate the skin of the hands and make them rough to the touch. When they become chapped, it will be advisable to wrap them at night in a dressing of some healing ointment.

To avoid this chapping and roughness the nurse should be careful to thoroughly dry her hands after each washing, since it is important they should always be as soft, smooth, and attractive looking as circumstances will permit. While they may not always be white, they should show signs of being well kept.

The foot is a part of the anatomy which demands the attention of at least three-fourths of the women who take up the nursing profession. The mischief is largely caused by the unusual strain of having to be on one's feet for so long a time at a stretch, by constant walking to and fro on hard, polished floors, or by the extra strain of trying to move about noiselessly, but above all by the defective style of shoe generally worn. To avoid any bad effects the nurse should provide herself with a comfortable, not too loose-fitting shoe; it should be tight enough to hold the foot snugly, but should not pinch at any point; it should give sufficient support to the instep and ankle. It should be broad enough to allow free action to the toes, and high enough at the heel to prevent the wearer from dropping back when walking.

No special effort should be made to move about noiselessly. To overcome any difficulty in this respect, and in order to

enable the wearer to move quietly, rubber heels may be worn, or a sheet of rubber tacked to the heel of the shoe.

The nurse should present a neat and attractive appearance at all times. When on duty the full uniform should be worn.

The light weight of the uniform renders it easy and comfortable to work in; it is easily put on and off; and it is a comfort to know that one can go to the next patient with everything fresh, clean, and dainty.

The uniform should never be made to do duty as a walking dress, for that would render it conspicuous and attract unnecessary attention from the public. Disease germs may in this way be carried to her patient.

A woman's character is estimated by the way in which she dresses as well as by her manner and carriage. A nurse's costume should at all times be characterized by a certain quiet, good taste as regards both color and style, while at the same time giving the impression that she is well dressed.— *Minnie Anderson, in Medical Missionary.*

Hard Water

Experience has often proved that the use of hard water impairs the integrity of the stomach sooner or later, when long continued; and in numerous instances its effects are almost immediate upon persons who visit a hard-water district, having been accustomed to the use of soft water. The cause of these injurious effects is undoubtedly attributable to the lime and magnesia which are contained in hard water. These alkalies neutralize the gastric juice, and thus work mischief. There is little necessity for the use of hard water in any part of this country. Where there are not soft-water wells or springs, rainwater may be caught and preserved in cisterns, and by boiling and filtration through carbon filters, made pure and palatable for drinking and cooking purposes. Boiling hard water greatly diminishes its hardness by precipitating the lime which it contains. There is no foundation for the theory that hard water is in any respect more excellent for use than pure soft water. Distillation is the most efficient of all means of securing pure water.

Aborting an Attack of Biliousness

The best cure for biliousness is fasting. If one suspects that he is going to have biliousness, he can prevent it with almost absolute certainty by simply establishing a fast. Live on fruit for a couple of days, or three days, and the bilious attack will be aborted. Another thing necessary is to clean out the stomach and bowels. They are probably loaded up with decomposing material which will produce the bilious attack. Eliminate these poisonous matters by washing out the stomach, and by emptying the bowels very thoroughly with a soap and water enema; then simply cease to put any material which will decompose in the stomach for a burden; stop eating meats, stop eating fats; eat bread and fruits, and the bilious attack will be prevented. Suppose one says, "I have a bilious attack once a week. It comes on every Monday morning. What makes it?" It was that big Sunday dinner that made it. If one has a bilious attack which comes regularly upon a certain day in each week, one should take care to fast that day. Begin the day before, and eat a fruit diet, and very soon the bilious habit will be broken up. Keep the bowels regular, and the stomach regular; regulate the nutrition; don't eat too much proteid.

Our Walking Club

Michigan to Kentucky

IT was with pockets full of newspaper clippings and an abundance of new experiences that Fred Luthy and Joseph W. Choate alighted from the train some eighteen months ago, after their first long-distance walking experience. From Jackson, Mich., to Lexington, Ky., they wended their way and overcame all obstacles.

Florida was their Mecca. Lexington was their Waterloo.

Alexander founded a new empire, and died of the cramps. Cæsar vanquished worlds, and fell in time of peace at the hands of assassins. Luthy and Choate conquered Michigan, Ohio, and part of Kentucky, but the Lexington water was too much for them.

The boys were away from home just eighteen days. They traveled with the equipment shown in the photograph, sleeping out of doors, usually in the corners of rail fences with a roof of corn stalks to protect them from the rigor of the November blasts. The outdoor air gave them healthy appetites and they ate healthy foods — nuts, raisins, whole-wheat bread when obtainable, eggs, and fruit. When resting they wrote home, and at almost every new town they found letters awaiting them. As Y. M. C. A. members, they received cordial welcome in each new town from members of the Association, and, better still, had

Fred A. Luthy John W. Choate

opportunity to rid themselves of the grime of travel, in the Association bathrooms.

It was just when they began to feel sure of reaching their goal, the promised Florida, that they met with the obstacles which defeated their purpose. In the hills of Kentucky, water was scarce. When one walks a dozen miles without a drink, one is apt to take whatever is offered and say nothing when "drinking" water is finally encountered. And these Kentucky germs were mountaineers of robust qualities. They fell to with a vengeance, and the boys were forced to unconditional surrender.

Both boys are still enthusiastic members of the Overland Walking Club,* Jackson, Mich.

*EDITOR'S NOTE:—GOOD HEALTH has been promised interesting experiences by other members of this Club for use in future issues. These will be alternated in this department with anecdotes of other walkers. All enthusiastic walkers are invited to correspond with the editor of this department.

The Tree-Tops in May

BY JULIA ELLEN ROGERS

BACK to the oaks this month of May! New leaves, borne on *new twigs* (do you all see?), renew the youth of the trees. Flowers among the leaves turn each old oak tree-top into a bower fit for a May queen. No tree but blossoms when it is old enough. In oaks this time comes somewhat later than in trees of quicker growth; but there is little likelihood that we shall look long in any woodland without finding oaks decked out in delicate, threadlike catkins of staminate flowers. These usually cluster at the bases of the new twigs. In the leaf angles we look for the acorn flowers whose vivid scarlet stigmas catch the eye, though these flowers are small, and solitary or paired, and crouch like buds in the corners. The wind carries away the golden pollen in imperceptible clouds and the eager red tongues which catch this vitalizing dust set seed. Each flower needs but a single grain to fertilize an ovule. The acorn is the matured seed, with its single kernel.

Photo by A. Radclyffe Dugmore

New leaves and staminate (male) flowers of the white ash (*Fraxinus Americana*)

Look at this picture of a white oak twig. Notice the outline of its leaves. If you have forgotten how to tell which group of oaks it belongs to, read the January discussion of how to know the oaks. How soon will this tree ripen a crop of acorns? How do you know? What is the color of the leaf linings and bark? What is the color of white oak wood before it is stained and varnished? Perhaps you can find a post or a ralroad tie, or a stick of white oak in your wood-pile. Perhaps not, for the wood is high-priced and becoming rare in such common use. A furniture factory is a likely

place to find a specimen for examination.

Do you remember the clustering of buds at the tips of the winter twigs? Notice now the number of leaves that spread fan-like from each bud. And notice that each fan is supported by a short new twig. No leaves spring out of *old* twigs. Buds never produce single leaves, though we constantly (and inaccurately) speak of "leaf-buds" as distinguished from flower-buds. A "leaf-bud" always produces a *shoot* on which *one* or *more* leaves are set. Twigs bear leaves the year they are formed, and never again. Next year's new twigs bear the season's foliage; the parent twig is bare. Hence an oak is a great bare framework of branches, and the outer dome bears most of the green leaves. The opener a tree's crown, the more leaf-bearing twigs are found within the dome. Compare a honey locust tree, with its feathery foliage, with a Norway maple, whose inside leaves soon die, because the foliage is so thickly shingled on the outside of the crown as to keep out the life-giving sunshine from the leaves that attempt to grow within the dome.

This month we must learn to know the ash trees. They are late to come into leaf; so while maples are clothing themselves with leaves in April, we shall find bare ash trees, with close gray bark, and stocky, rigid limbs and twigs, that exhibit the maple habit of bearing their buds opposite in pairs upon the twigs. These buds are stubby, blunt, with roughly granular surface scales, destitute of the gloss and ruddy color that make maple buds attractive. Out of these dull-gray, tardy buds very unmaple-like leaves and flowers come. Male and female trees may be easily discerned by the flowers that appear in bunchy, dull-hued clusters on the stubby twigs in May. Usually they precede the leaves. The purplish anthers turn to gold as the abundant pollen is given to the wind. The pistillate flowers are greenish, relying upon the wind to bring them pollen. No flush of color and odor of nectar are there; for the tree does not need the help of insects to effect the transfer of pollen upon which the setting of seed depends. Before May has

Photo by L. W. Brownell

Staminate (male) flowers of white oak (*Quercus alba*)

passed, the dry brown anthers have fallen from the sterile trees; the greenish seeds are taking on their characteristic dart form, on the fertile trees, and both kinds are decked in their handsome foliage.

Ash leaves are compound; i. e., each consists of several leaflets arranged in pairs along the sides of a main leaf stem. They are always odd-numbered, for a single leaflet tips the stem. The number of leaflets varies from five to nine in our familiar species. White ash leaves are smooth, bright green, with pale linings. The buds are a rusty brown in winter. The tree is actually graceful in summer, with its burden of flexible leaves swaying in the wind; and (if a fertile tree) great clusters of pale-green seed darts further lighten the tree-top.

Next month we shall study some trees of more striking and beautiful bloom.

The Return of the Birds

BY BELLE M. PERRY

"THE year's at the spring
And day's at the morn;
Morning's at seven;
The hillside's dew-pearled;
The lark's on the wing;
The snail's on the thorn;
God's in his heaven—
All's right with the world."

I CAN fancy that Robert Browning wrote these exquisite lines under the inspiration of a May morning tramp through lanes, across fields, into the woods. But seven is almost too late to catch the finest glory of the morning. One may well plan once in a while to take his morning nap at the other end of the night, in order to watch the coming of the dawn, that "highest manifestation of beauty in the universe," according to John C. Van Dyke, and to make the many rare bird discoveries that may be found only at this hour and at this season, as well as to see the beauties in light and color, in plant and blossom, in tree and shrub, that await the observing eye and the beauty-loving soul in the early morning in the most commonplace spot on this beneficent old earth. One does not need to go abroad to see wonders. An hour's walk on a beautiful morning has as great possibilities of delightful sight-seeing as the world holds. Find a copy of Van Dyke's "Nature for Its Own Sake" and alternate a little reading with a good deal of observing and see how beautiful the commonplace world close around you will become. I doubt if one who has never come in close touch with the early morning can truly appreciate one of Corot's landscapes.

So, I say, do not let this marvelous time pass without more than one early morning walk. Rubber boots, with very short skirts, is the proper equipment for women and girls, with a big all-over apron of some subdued color, say that of tree bark. The apron should have a generous pocket, or several of them, to hold note-book, opera-glass, and pocket bird-book. There is a little fifty-cent Bird Guide to be had now which is invaluable, as it gives color plates of all land birds east of the Rockies, with a very complete full-page description of each. It can be ordered from any book store.

Be sure to eat a light lunch of nourishing, easily digested food before starting out.

We are now at the high-tide of the spring migrations, though the song-sparrows, bluebirds, and meadow-larks have been with us since early March, and the robins for much longer. A number of robins were in this vicinity the third week in January, and ever since February 22 they have been abundant. Even in the very cold weather of March they held their ground, and had enough courage to indulge in an occasional "cheerily, cheer, cheer up."

These are the days of return for the birds of the numerous family of warblers, which, by the way, do not warble, — of the vireos, thrushes, the bobolink, tanager, house wren, catbird, and all the flycatchers and other insect eaters that were not here in April. It seems a motley gathering to the beginner in bird study, but they can be quite easily classified by their habits, size, coloring, bills, and their manner of feeding as well as by what they eat. So every hour of intelligent and patient observation at this season will surely count for progress, and a season of bird study will bring most satisfactory returns. There are so many little things that help out in placing birds. For example, if you see a bird perching on a fence rail, a telegraph pole, a dead limb, or other conspicuous place at any hour of day, it is quite likely to be one of the flycatchers, — a kingbird, a phebe, or a pewee. Watch it a moment. If it darts out, makes a quick return to the same perch, and repeats the feat again and again, there is no doubt about it. Indeed, repetition of the act is not necessary for proof. This is their method of catching flying insects. The kingbird, with its white tail-band, conspicuous in flight, may be quickly identified. It is not so easy to tell the phebe and the pewee apart. These are all valuable birds, the kingbird especially so, as it includes in its bill of fare some of the worst insects, among them the dreaded gadfly. He is accused of eating bees, but ornithologists tell us that his bee food consists almost entirely of drones, and not the honey-makers.

There is quite a strong family resemblance between the flycatchers, and their characteristics are so readily learned that one is soon able to recognize them easily at quite a little distance, without a glass. They have no song, but the sweet, plaintive call of the phebe and the pewee is almost as good as a song, and especially appreciated because we can hear it all summer, as long as there are insects to eat, and long after the song-birds have ceased to sing. For weeks in the early fall last year I heard the early morning call of the phebe, and it was welcome music at intervals all through the day. It continued nearly through September. I missed it almost as much as the bird choruses of May and June, it had remained faithful so long and so alone. A bird excursion is always sure to give a glimpse of some member of this family of birds, whatever the season or the hour. They are so easily learned and so interesting to observe that the beginner may well put them on the first season's list. The "pewit, phebe" call of the phebe has a far-away sound, and may easily lead one into looking for the bird at some distance when perhaps it is but a few feet away, above the head.

Near the roadside and in fields one is liable to see the meadow-lark, bobolink, bluebird, catbird, kingbird, brown thrasher, goldfinch, indigo bunting, and numerous kinds of sparrows.

If you catch a glimpse of a bird on a tree trunk or large limb, be on the lookout for a nuthatch, chickadee, woodpecker, or warbler.

There are several kinds of fine birds

that haunt evergreens; others like thickets and shrubbery, as a number of the field and roadside birds; still others prefer the deep woods. Then there are the birds of marshy places and those that like the vicinity of streams and ponds.

The size of a bird often helps out in identifying it. If it is smaller than the English sparrow, it comes under a well-defined list in the bird books, which includes humming-birds, wrens, kinglets, chickadees, a number of the flycatchers, the vireos, as well as a number of kinds of sparrows. A number of sparrows, including the song-sparrow, are about the same size as the English sparrow. This often makes the identification difficult. But the male English sparrow, with his black throat, is always easily told, and the habit of these birds, of flocking together, makes the identification of the females sure, if you find a number of the black-throats in the group. The swallows, orioles, thrushes, bluebirds, and even some of the sparrows, are between the English sparrow and the robin in size. The sparrows, like the warblers, are of so many kinds that even the experienced bird student may have trouble in placing them. There are two, however, which the beginner should aim to learn. These are the song-sparrow, which one should learn by his song, and the neighborly little chippy. The small size of the chipping sparrow, its dark-red crown, gray stripe over the eye, and a nearly black one running apparently through it, with its chipping chant, make its identification easy. Some of the bird books interpret the song-sparrow's song in these syllables: olit, olit, olit,—chip, chip, chip, che-char, che-wiss, wiss, wiss!

The catbird, purple martin, blackbird, and chewink or towhee, are about the size of the robin. If you chance, when in the woods, to see the leaves flying in some spot as if a mother hen were scratching for her chicks, you may be sure you have found a chewink. The meadow-lark, brown thrasher, cuckoo, and flicker are a little larger than the robin.

If, on a bird trip, a nest should be discovered in process of building, in some accessible place, it may afford fine possibilities for getting acquainted with the bird's habits, if one can spare the time for frequent, or, better still, daily visits. Olive Thorne Miller has a most interesting book of just such experiences. Of course, great care must be taken not to alarm the birds, especially before the little ones are hatched, and it may be necessary to sit stock still by the hour, as many a bird student has done, even under fire of flies and mosquitoes, in order to find out a lot of interesting things. The birds of the woods are more unsuspicious than those of the outside. A chickadee will sometimes alight on a bird student's hand on his first visit. If he is provided with food, he will become very friendly. It is the quick, sudden movement that frightens a bird; and a bird once frightened may be past taming forever after. Birds do not like to be watched. One must pretend to be about other business and let the glances at them be only incidental. These are important points to remember in making friends with birds about our homes. Celia Thaxter was on such friendly terms with the birds in her Island Garden that even the humming-birds would light on her arm. Confidence is the one thing needed, and time and patience will finally win. It is worth while to try to learn the bird calls. If one is gifted in this way, he may bring the birds to him at his will.

It is well for the beginner not to attempt too much in his excursions. These will quite likely come to have some special object, perhaps going a number of times for a better acquaintance with a

single bird, seen in a certain locality. But with all the bird excursions there will still be much of home interest besides, and this may well include the special study of one particular kind. I gave many hours last summer to my wrens, and was more than well paid for it. The rippling melody of these birds all through May, June, and July surpasses anything else I am able to recall in bird melody. The first brood left the nest on June 25, and for ten days neither mother nor her babies were to be seen or heard. But the father held guard over the nest and sang as merrily, day after day, as on that first May morning. On July 4th, however, the baby wrens celebrated their independence by returning with their mother. They remained in the vicinity, but looked after themselves.

The father and mother began at once to prepare for a second brood. My! there was wren music in those days. During all this time a lone male wren had been busy at intervals gathering sticks, etc., for another wren-house, and his song was as joyous as if he had a mate. But no mate was ever seen. We called him our bachelor wren. On July 30 I heard the first peepings of the second brood of wrens, and twelve days later they said good-by to the nest. I knew the day before that this would be, and was on the ground, or rather in the hammock, a few feet away, watching developments. And it was well I was there, otherwise a neighbor's cat would have eaten one, which instead of being able to make a direct flight to the apple tree, as the others did, fluttered a moment on the perch and fell ignominiously to earth. This was followed by cries of alarm from the wrens, and I saw a neighbor's cat lying in wait for the unfortunate birdling. It was not long, however, until the youngster was in a crab tree and quite sure of himself, though I fancy it was a young Jenny wren, from the nervousness shown in leaving the nest. For fully ten minutes before she mustered courage for the exit, the parents were giving encouraging little calls from a tree not far away. Again and again she seemed on the point of making the trial, but would back out. And when she finally did leave, it seemed as if she hardly intended to do so, but lost her balance. The one which followed, on the contrary, was all bravery, and made a sure flight on the first trial. That was the last of the wrens for the season. For perhaps half a dozen days before the second brood left the nest, the father's song had ceased. And I wonder that he kept it up so long, for it is no small task to raise two broods of bird babies in hot summer weather.

If the insects destroyed by one pair of wrens in a season could be seen in a big collection, I think it would surprise any one. They made scores of trips daily for insects for their babies. How we missed the bubbling song. For three months there had not been an hour, indeed, I think I can safely say five minutes, of daylight when there was not a wren to be seen, hopping and flitting from branches to bird-house, joyous with song, within a few feet of my kitchen door. They say, "Once home always home for a house wren," so I am confidently expecting them to come again to their bird-house under the eaves, and I hope our bachelor bird will bring a wife this year.

I was surprised to find, on opening the house after the wrens had gone, that their nests, though made with a deep foundation of little twigs and roots, was as beautifully finished as that of the chipping sparrow, just as much hair being used in the construction of the actual nest part. The wrens are most immaculate housekeepers, not a bit of bodily

From stereograph, copyright 1905, by Underwood & Underwood, N. Y.

262 A GRAY LINNET LEAVING ITS NEST IN A HAWTHORN HEDGE

wastage being allowed to remain a moment in the nest. It is carried away by the parents in their bills. The porch floor was as free from dirt and litter as if no birds were there. The wrens were such a joy to us all that I feel like urging every one who has not already done so, to put up a box at once for them, even if it is only a cigar box with an opening near the top marked by a silver quarter. This size will shut out the sparrows. The wrens will find it, for they do not nest until June, although they are house-hunting in early May.

What One Man Found on His Walks

Early in life the naturalist Linnæus read a paper at the University of Upsala, on "The Necessity of Traveling in One's Own Country," based on the inexhaustible riches of Nature, and showing that the nuisances which abound in every district, such as swamps, rocks, etc., might, if explored and turned to account, be made capable of yielding great benefit. With this in mind he instituted what were called "Herborizations," summoning his class to go with him on walking excursions into the country. On these all-day excursions the professor was generally accompanied by two hundred students, and on their return they marched in festive procession through the city, their hats decorated with flowers, and carrying loads of natural products collected on the way.

What Linnæus found on his walks is thus summed up by Emerson: "He went into Oland, and found that the farms on the shore were perpetually encroached on by the sea, and ruined by blowing sand. He discovered that the *arundo arenaris*, or beach grass, had long, firm roots, and he taught them to plant it for the protection of their shores. In Tornea, he found the people suffering every spring from the loss of their cattle, which died by some frightful distemper, to the number of fifty or a hundred in a year. Linnæus walked out to examine the meadow in which they were first turned out to grass, and found it a bog, where the water-hemlock grew in abundance and had evidently been cropped plentifully by the animals in feeding. He found the plant also dried in their cut hay. He showed them that the whole evil might be prevented by employing a woman for a month to eradicate the noxious plants. When the ship-yards were infested with rot, Linnæus was sent to provide some remedy. He studied the insects that infested the timber, and found that they laid their eggs in the logs within certain days in April, and he directed that during ten days at that time of year, the logs should be immersed under the water, which being done, the timber was found to be uninjured.

"He found that the gout, to which he was subject, was cured by wood strawberries. He found out that a terrible distemper in the North of Europe was occasioned by an animalcule which falls from the air on the face or other uncovered part, burrows into it, multiplies, and kills the sufferer. By timely attention, it is easily extracted.

"He examined eight thousand plants; and examined fishes, insects, birds, quadrupeds; and distributed the animal, vegetable, and mineral kingdoms. And if, instead of running about in the hotels and theaters of Europe, we would, manlike, see what grows, or might grow, in the United States, stock its gardens, drain its bogs, plant its miles and miles of barren waste with oak and pine, ponder the moral secrets which, in her solitudes, Nature has to whisper to us, we were better patriots and happier men."

Hydrotherapy in Pneumonia

BY J. H. KELLOGG, M. D.

PEOPLE with gray hair are generally the ones most interested in pneumonia, for pneumonia is a disease from which they have much to dread. It is a disease which is especially dangerous to elderly people. More people of sixty or seventy years of age are carried off by pneumonia than by any other malady.

With the young it is different. The chest can expand; even if one lung is rendered useless by pneumonia, the other can do the work of two, just as one young man can do the work of two for a short time in an emergency. But with the elderly person the ribs can not expand. The patient dies of suffocation.

What shall we do for pneumonia? This is a very important question. Here is a congested lung — an organ within the body that has too much blood in it and is invaded with germs. Now the blood is not destructive, nor is congestion a destructive condition. The germs are the destructive agents. The purpose of the blood is to destroy the germs. The lungs become passively congested so that the blood does not move on. It goes into the lung, fills it up and stays there. The germs are outside of the blood vessels, in the tissues, attacking the lung.

Within the blood vessels are the white blood cells, which are constantly seeking out the germs and devouring them. Though apparently having no organs of sense, these cells seem to smell the germs from afar. They pursue the germs in no uncertain manner, pass through the walls of the blood vessels into the tissue, proceed directly to the spot where the germs lie, and immediately absorb them, actually devouring and digesting them. These little white cells are the policemen, if you please, swarming in to the affected part from all the distant parts of the body.

So, then, the thing that is necessary is to facilitate their work of cure. Nature is pursuing pneumonia germs to destroy them. That is the whole thing in fighting pneumonia — to kill the germs. As the blood goes down through the lungs, some of these cells pour out into the tissues to capture the germs. Take a drop of blood and examine it. These white cells will be found present in large number. Ordinarily there are only 7,500 in a drop, but the next day after one is taken with pneumonia there may be 25,000. The second day there

FIRST STEP: (Fig. 1.) Two linen towels well wrung out of cold water and applied on the chest as shown. The towels cross also at the back.

SECOND STEP: Not shown in illustrations. Cover the towels with pieces of mackintosh or oiled silk or newspaper.

THIRD STEP: (Figs. 2, 3, 4, and 5.) Woolen drawers applied over the mackintosh, oilcloth, or paper. The legs cross at the back, and are pinned as shown.

may be 50,000, and the fourth day there may be 125,000 in a little drop where there were only 7,500 at first. In three or four days they are multiplied in the body until there are ten, or twenty, or even thirty times as many as four or five days before. Why? They have been multiplied. They have been created in the body to meet the emergency. What a wonderful thing that is! The same power that makes them made man. The same power made the first man and the first woman, the first tree, the first flower; and that same power is creating within us to-day. That is the only thing that saves us from death,— this process of creating all the while. That is the only way for the sick man to get well — to be re-created. We frequently hear persons say they are going out for a little "recreation," but we do not always stop to think what that word means. It does not mean merely having pleasure. "Re-creation" means being made over anew, being re-created, and that is the whole process of getting well.

Fig. 1

These little white blood cells get opposite the germ on the other side of the vessel wall, then pass through the wall, and are led by a marvelous intelligence right to the spot where they are needed. There they pounce down upon the germs and capture and destroy them.

The thing of importance, then, is to keep a stream of blood flowing through the lungs to prevent stagnation. When there is congestion, the patient gets blue in the face, the lips get blue, the patient is short of breath. Poisons accumulate in his blood — carbonic acid gas or carbon dioxide. The blood must be moved through the lungs faster. Right there is where the great power of hydrotherapy comes in, the power to control the circulation of the blood in the internal organs. The congested lungs are all dilated and paralyzed by germ poisons, and full of blood. A compress made by wringing a towel out of cold water is put over the chest, and the patient gives a little shiver. His muscles contract. This makes the lung contract and causes him to take a long breath. The blood vessels contract and force the blood right along, just like the hand on the bulb of an atomizer. When the vessel walls contract, they send the blood along. The compress gradually gets warm and the vessels widen again. Then another cold compress is applied; the vessels again contract; they send the blood along again and more new blood comes flowing in.

A prominent doctor in Philadelphia has been treating pneumonia for the past ten years with the ice-bag. The cold compress is a great deal better than the ice-bag, but he uses the ice-bag. And by its use he has reduced mortality to half of one per cent in his cases of pneumonia. He has treated sixty or seventy people in succession for pneumonia without a single death.

Not very long ago a certain doctor examined the records of the Boston State Hospital, for the last sixty years, and summed up the results of the treatment of pneumonia in the State Hospital, Boston, Mass., and he found the mortality to be thirty per cent. Three hundred patients out of every thousand died. How many should have died? Not more

Fig. 2

Fig. 3

Fig. 4

than ten, or twenty, or thirty at the most. Two hundred and ninety or two hundred and seventy at least of these people ought to have been saved alive and doubtless might have been saved as well as not.

A lung compress half an inch thick and large enough to cover the entire front of the chest should also be employed in the treatment of pneumonia. The whole lung must be treated. For the back part of the lung a towel should be wrung out of real cold water, placed on the back, and covered with a mackintosh, which, in turn, is covered with flannel. The flannel should be large enough to go around the chest, and over the tops of the shoulders as well. If a flannel just suited to the case is not obtainable, there is nothing better than a pair of woolen drawers. The upper part will cover the chest, and the rest will go around over the shoulders, the two legs will go over the shoulders, cross behind, come around and pin in front. That is just the best kind of arrangement, and one can always find that kind of compress in the house.

The ice-bag is not so good as the cold compress, because it sometimes chills the patient. It does not get warm, but remains cold, and if kept very long on one spot, that part becomes numb. So long as the compress feels cold, it is doing good, but when the skin gets numb there is no reflex effect. But if the patient rolls about very much he keeps the ice-bag working around from one place to another, preventing numbness. The cold compress, however, is by far the best application.

Besides the cold compress to be put on the chest and changed often, there is the heating compress to be applied to the back. A heating compress is a towel wrung dry out of very cold water. When applied to the back it is covered with mackintosh, then with very warm flannel, so that it will get warm quickly and stay warm. If a patient has too much blood in his lungs, it is a good thing to get part of the blood down into the lower extremities. So every three hours the patient must be wrapped in a hot leg pack. The compress is kept upon the chest, and the hot blanket pack comes up to the umbilicus. The blanket is wrung out of

Fig. 5

hot water, and the patient is wrapped in it for fifteen or twenty minutes; then rubbed with a towel dipped in cold water, and the legs wrapped with a towel wrung out of cold water, and covered with mackintosh and flannel. This is kept on three or four hours, or until the next pack. Wet packs on the legs should be kept warm. They must never be allowed to get cold a minute. If necessary hot bags must be placed around them. They must be put on cold — stockings wrung out of very cold water will do nicely — and allowed to warm up; then kept warm by a blanket wrapped around them. That will send the surface blood down into the legs. It is astonishing how the cough may be relieved by these packs on the legs, and the compress on the chest. Should the patient suffer a great deal of pain, the heating compress, or cold compress, should be removed every hour and a fomentation applied over the painful part for about five minutes. That will give relief. Then the cold compress should be replaced.

After the temperature falls, the cold compresses are replaced by heating compresses, which are changed every three or four hours. Sometimes a lung becomes solid in pneumonia. The patient is given hot and cold three times a day in such cases; first just as hot a compress as the patient will stand for fifteen or twenty seconds, then very cold, with ice or an ice compress. These are alternated every fifteen seconds for fifteen or twenty times. A hot and cold spray is better still.

If the patient's temperature is high, a wet sheet pack should be given. The sheet must be wrung quite dry out of water at 60° or 70° and wrapped tightly around the patient. First it is wrapped clear around the body with the arms held up, then the arms are lowered to the sides, and the sheet goes around the arms. At the legs, one edge is tucked in around one leg, and the other edge around the other leg. The sheet must fit just like a stocking everywhere from the neck clear down to the heels. Then the patient is wrapped up snugly with three or four blankets. In about ten or fifteen minutes he will be quite warm. He should be kept in there about half an hour, or until well warmed up. If the temperature is very high, he will warm up in fifteen minutes or less. When the sheet becomes warm, it should be renewed.

If the patient shows a tendency to perspire, that is a most encouraging symptom. Let him sweat; that will bring the crisis of the disease, and from that moment he will be better. The temperature will drop, and recovery will be rapid.

God made the country and man made the town
What wonder, then, that health and virtue, gifts
That alone can make sweet the bitter draft
That life holds out to all, should most abound
And least be threatened in the fields and groves.
— *Sel.*

An Individual Menu for One Day, Showing Amount Needed and Food Units for Each Article

BY ESTELLA F. RITTER

BREAKFAST		Calories
Sliced Oranges	5 oz	74
Cream Rolls	2 "	264
Poached Eggs on Toast	2 "	191
Caramel Cereal	6 "	112
Total Calories for Breakfast		641

DINNER		
Lentil and Tomato Soup	5 oz	179
Nut Fillets	6 "	142
Green Peas	2 "	68
Whole-Wheat Bread	2 "	143
Butter	½ "	113
Date Fanchonnettes	6 "	419
Total Calories for Dinner		1,064

SUPPER		
Granuto, Almond Cream	4 oz	205
Canned Strawberries	3 "	34
Cocoanut Crisps	½ "	62
Apple Juice	6 "	102
Total Calories for Supper		403

Calories for Breakfast	641
Calories for Dinner	1,064
Calories for Supper	403
Total Calories for One Day	2,108

Cream Rolls.— Sift two ounces or one-third cup of white flour into a bowl, and into it stir slowly one ounce or one-eighth cup of cream. Then knead thoroughly for five minutes until perfectly smooth and elastic. Roll the dough over and over with the hands, until a long roll about one inch in diameter is formed; cut this into two-inch lengths, prick with a fork, and place in perforated tins. Each roll should be as smooth and perfect as possible, and with no dry flour adhering. Bake at once in a moderate oven from thirty to forty minutes.

Poached Eggs on Toast.— Cut a piece of bread (one day old is best) one-half inch thick, and bake or toast in a moderate oven for half an hour or until the slice is nicely browned and thoroughly dextrinized throughout. Heat slightly salted water to boiling and drop into it the egg; take the sauce-pan away from the heat, and let the egg remain in the water for five minutes. Take the egg from the water and serve on toast.

Caramel Cereal.— Take two teaspoonfuls of caramel cereal, tie in a coffee bag or cheesecloth, and put to boil in eight ounces of cold water. Boil slowly from five to eight minutes. Serve with cream.

Lentil and Tomato Soup.— Soak one-half ounce or one tablespoonful of lentils in cold water over night. In the morning drain off the water and put to cook in one-half cup of hot water. Cook slowly for one hour. Then press through a colander to remove the hulls, and add to the pulp two ounces or one-fourth cup strained stewed tomatoes and two ounces or one-fourth cup of cream. Salt to taste. Heat all together and serve.

Nut Fillets.— Slice protose and nuttolene each one-half inch thick, or one ounce slice each. Place a slice of onion between the protose and nuttolene, the protose on top. Make a dressing of seven ounces or one-half cup of strained tomatoes which have been stewed down, and seasoned with bay leaves, thyme, and salt. Put the dressing over the fillets. Bake in a moderate oven for an hour.

Date Fanchonnettes.— Make a pie crust, using one-half ounce or one tablespoonful of flour and one-fourth ounce or two teaspoonfuls of nut meal. Mix together. Moisten with sufficient cream to stick it together. Handle as little as possible; roll the dough out thin in an oiled cup, and bake until slightly browned.

Cream Rolls

Make a filling using two ounces or one-eighth cup of dates, three ounces or one-third cup of milk, and half of an egg. Seed the dates, and steam them until tender in a double boiler. Then rub them through a colander. Heat the milk to boiling. Beat the egg and add to the dates, then add the hot milk and mix thoroughly. Fill into the crust and bake in a slow oven until set. Beat the white of half an egg to a stiff froth, add one-fourth teaspoonful of sugar, and meringue the top. Brown slightly and serve.

Nut Fillets

FEW things, if any, are so effectual in building up and sustaining the physical organization as walking, if resolutely and judiciously followed. It is a perfect exercise, which taxes the entire system. When you walk properly, every member and muscle, every nerve and fiber, has something to do. Every sense is employed, every faculty alert. Progress under such conditions is the very eloquence of physical motion. What is the effect? — The flesh is solidified; the lungs grow strong and sound; the chest enlarges; the limbs are rounded out; the tendons swell and toughen; the figure rises in height and dignity, and is clothed with grace and suppleness. Not merely the body, but the whole man is developed.— *Dr. Felix L. Oswald.*

"GIVE me but this, the heart to be content,
And if my wish seem thwarted, to be still,
Waiting till puzzle and till pain be spent,
And the sweet thing made plain God meant."

The Windows of the Mind

IT requires no argument to demonstrate that a large share of our ideas at least originate in pictures made upon our brains by impressions which are received through the several senses. The material thus received from the outside world might be called the mind food or "thought-stuff."

The eye is a picture-making instrument, very much like an ordinary photographer's camera, only much more delicately and perfectly constructed. The eye of an ox recently killed may be prepared in such a way that one can clearly see the picture which is formed by the lens of the eye upon the dark curtain stretched across the back of the eye globe. Just in front of the colored screen is a fine network of nerves and nerve cells which are connected with the brain. In some way which no physiologist has ever been able to explain, a record is made of this picture in the cells of the brain; and a most remarkable fact which remains to the present moment, and probably always will remain, wholly unexplained, is that while the picture in the eye is upside down, yet the brain sees the object right side up and in its proper relations. The reversal of the picture in the eye is due to the fact that the eye is a lens, and is subject to the laws which govern lenses of glass or other material. In order that the image at the back of the eye should be right side up, a complicated system consisting of several lenses would be required instead of the simple, though delicate, construction with which we are enabled to see; and the mystery of the transmission of the image from the eye to the brain is so great that it is not increased by the reversal of the image.

Most ingenius human inventors have labored for many years to solve the problem of the transmission of a picture through a telegraph wire. Success has at last crowned their efforts and the result is an exceedingly delicate mechanism known as the telautograph, or the telepantograph. But here we have the same thing accomplished, apparently without any mechanism whatever, simply a bundle of minute white threads running from the brain to the eye, and spread out in a thin, transparent membrane over the screen upon which the picture is formed.

One looks at an object; it may be the face of a friend, a beautiful flower, a strange animal, a collision of vehicles in the street. The next day, or many years after, the picture may be mentally reproduced, showing that a record has been made in the brain. Yet it can not be supposed that there are pictures in the brain, for the most minute microscopic examination shows no trace of either pictures or any mechanism upon which pictures could be made. Some curious experiments, however, have seemed to show that when one recalls vividly any object which he has seen, a picture of the object is simultaneously reproduced in his eye. One observer even claims to have taken a photograph of such a picture.

This view may or may not be true, but we know that it is true that in the mind, at least, we may often reproduce in a most distinct and accurate manner eye pictures which have been formed years before. It is related that a famous artist once reproduced from memory a copy of an inaccessible picture hanging in a gallery in a distant city, which was so like the original that it could not be distinguished from it. This is what the brain is doing all the time.

Another interesting and remarkable

fact in relation to eye pictures is that, instead of being painted upon the eye by the sun's rays as in the case of the chemically prepared grass or paper of the photographer, the picture is bleached by destruction of the coloring matter of the screen where the rays are focused, producing a picture in white. This necessitates the constant reproduction of the coloring matter of the eye. In other words, a new screen must be prepared for every new picture that is formed. Just as one having made a chalk picture upon a blackboard, must efface the picture made before another one can be drawn, as otherwise the lines would be mixed and the pictures indistinct, so the eye picture must be effaced before a new picture is formed.

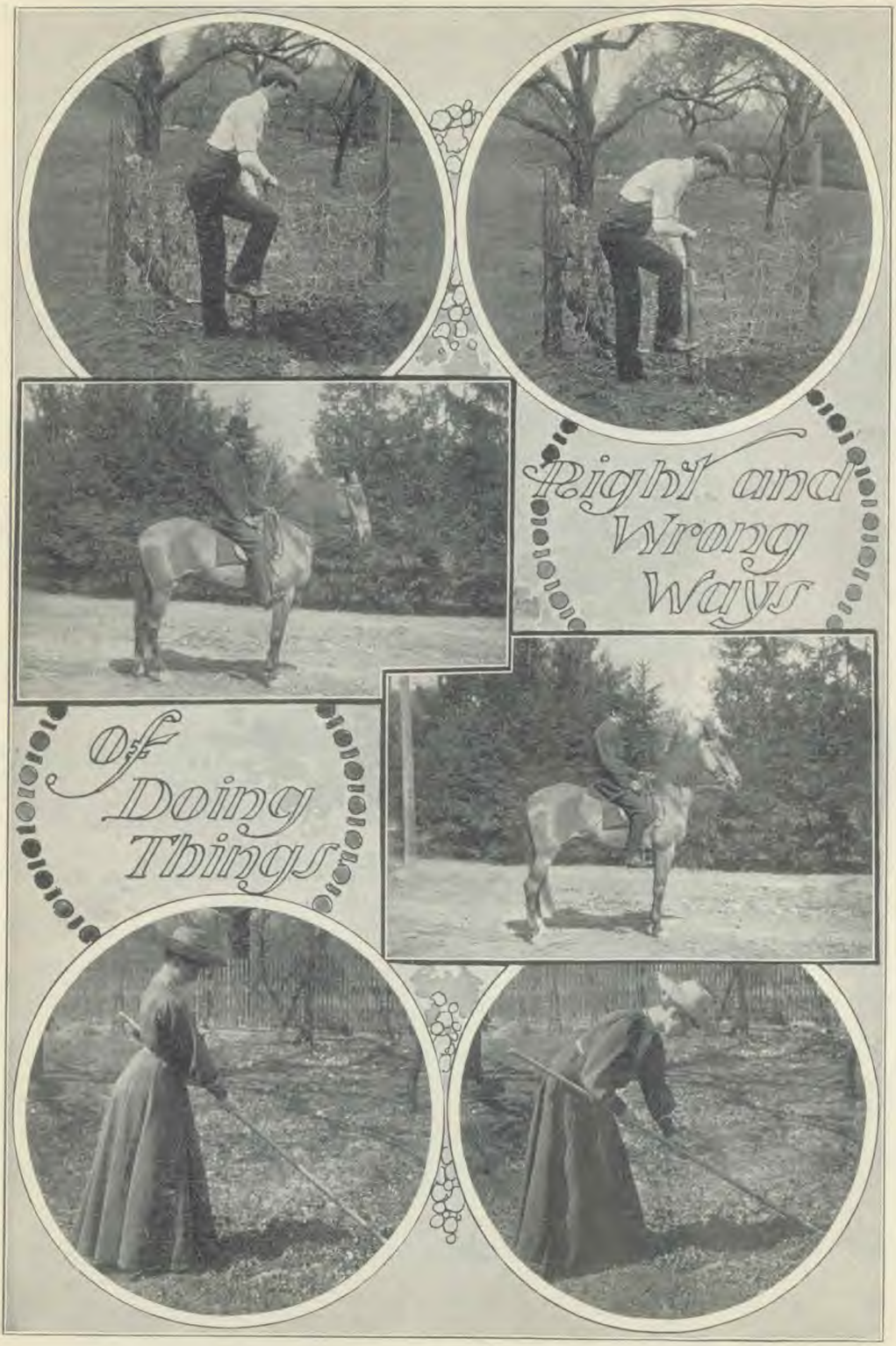
Here we are brought in contact with a power which, fortunately for us, reaches far beyond the human will, that operates beneficently and incessantly while we are awake and making use of our eyes, transmitting to the brain and recording there every picture made, and instantly preparing the picture-making apparatus for the taking of another picture, not by rubbing off the picture, as when chalk is effaced from a blackboard, but by producing anew, creating from the blood, new coloring matter, and filling in upon the living curtain every bright line, every light or hazy spot, that another picture may be received. So rapidly is this work done that it is possible for one to form a clear, distinct picture of a new and separate object eight times a second. If objects are presented too rapidly, the image formed is blurred, for the picture of one is not completely finished before the next is formed, so that several pictures blend together.

The images of very bright objects which have been gazed at for some time, remain long upon the retina, as may be recognized by a single experiment. After looking for a moment directly at a window through which the light is shining brightly, turn the head away from the window, and tightly close the eyes. After waiting for a few moments, a distinct image of the window will be seen, perhaps of a different color, but the form and the outlines of the sash will be readily made out. Sometimes even the fine tracery of a lace curtain may be readily seen with the eyes tightly closed. Certain diseases and various drugs have the effect to greatly lengthen the duration of these eye pictures, thus interfering with the vision. Tobacco in particular has this effect, also alcohol.

The ear, like the eye, is a means by which impressions are made upon the brain which have a definite form or value, but differing altogether from the pictures received through the eye. Though less intricate in appearance than the eye, the ear is no less wonderfully made. How the great variety of air movements which constitute noises of every possible description, and musical notes covering a range from eight vibrations a second to more than forty thousand vibrations per second, or about a dozen octaves, can be received by nerves and transmitted to the brain, each preserving its own particular quality and quantity, is still an unfathomable mystery, after hundreds of years of study of this organ.

During sleep, the eyelids are closed. It seems, in fact, necessary that the eyelid should be closed in order that one may sleep; but the ears are never closed. The nerves of the ear remain active during sleep, reporting to the brain, as during the hours of waking, every audible sound. Thus the ear is an ever-wakeful sentinel, an avenue to the mind which is never closed, a wonderful evidence of the Creator's unceasing care.

J. H. K.


Right and Wrong Ways
Of Doing Things

The Bradley Garden Co.

BY NELSON BARNES

"GARDENING time," Papa Bradley said one afternoon, when he and Harry were sitting on the side porch watching the sun go down. "Gardening time," he repeated softly.

Evelyn was standing in the doorway wiping a plate, and looked up quickly. Harry's eyes sparkled, and he jumped to his feet as if ready to begin gardening right away without waiting for another day to begin. Then a look of disappointment spread over his face.

"Yes, but where's your garden?" he inquired.

For although there was a large front yard where the Bradleys lived, with plenty of shade trees and everything to make it pleasant, it lacked room for a garden. So Harry concluded that Papa Bradley must be joking. Perhaps he was.

Anyway he looked wise and said nothing until Uncle Ned came strolling up the walk from nobody knew where, Baby John hanging on his back and Marie pulling on his right sleeve. He dropped Baby John on Papa Bradley's lap, and sat Marie on a rain barrel. Then he sat down on the porch beside Papa Bradley.

"About gardening time," Papa Bradley remarked again. Uncle Ned picked up a short stick and began whittling it.

"This is fine weather for making a garden," Papa Bradley suggested again.

"Well, let's make one then," said Uncle Ned.

Harry couldn't see through this, but was willing to wait for developments apparently, for he asked no more questions.

"We'll find the garden just as soon as we have the gardeners," Uncle Ned promised, so that settled it.

"Here's one," said Papa Bradley.

"Hurrah!" exclaimed Harry. "Here's another." And Evelyn, Marie, and Baby John all quickly volunteered to join the ranks.

"That's business," said Uncle Ned. "Now let's organize. Let's form a stock company. What will we call it?"

Several names were offered, but it was finally decided to call it "The Bradley Garden Co." Papa Bradley was immediately elected Chairman of the Improvement Committee, Harry was made secretary, much to his delight, and Uncle Ned was chosen "foreman." Each one was a member of the company and took an active part, even to Mama, who was chosen "Relief Committee."

"Mama will be called upon as relief committee at breakfast and dinner time mostly," said Uncle Ned, nudging Harry.

"But where's the garden?" Evelyn asked when the officers had been elected.

"Order!" the chairman demanded, "Uncle Ned has the floor — that is the porch."

"I suggest that the Improvement Committee of the Bradley Garden Co. adjourn until 5:00 A. M. to-morrow, when we can meet and begin operations," suggested Uncle Ned.

"Five o'clock!" the children echoed.

"It's five o'clock or no garden," was Uncle Ned's flat answer. So the motion was carried.

They were sleepy children that crawled out the next morning at five o'clock after receiving a vigorous shaking by both Papa and Uncle Ned. Once really out of bed and out into the cool, fresh air and they were wide awake, though, and they were soon wishing that they had been up an hour earlier.

"Don't you worry," said Uncle Ned. "You'll get all the getting up you want when the long summer days come."

"Now where are you going?" was the question each one asked.

"I'm sure I don't know," said Papa. "Uncle Ned is captain now, and woe be to the mutineers."

So they followed Uncle Ned. He led them around the house, then through an opening in the fence right into the next yard.

"Here's the place for your garden," he said.

"Well, I never thought of that before," said Papa with a funny smile. For it was the overgrown, deserted back-yard belonging to Aunt Mary Baker, the widow who lived alone next door.

"The Bradley Garden Co.," Uncle Ned explained, "has taken this land to work on shares. We will furnish the seed and make the garden. In return for the ground Aunt Mary is to have all she wants out of the garden for herself and what company she has. We can begin carrying out our part of the contract right away."

Uncle Ned and Papa Bradley went to work with ax, saw, and hoe, cleaning out the underbrush, and the children worked like troopers gathering everything into a heap in the center of the garden. That night they had a glorious bonfire on the lot, and all the boys and girls in the neighborhood gathered to watch it burn.

Harry was the first one up the next morning and he aroused every one else in short order. With the spading and raking of one corner of the garden the planting was begun. Uncle Ned knew just what to plant and how each bed should be laid out. Beans, peas, corn, carrots, lettuce, beets, tomatoes, and a dozen other things were provided for, and plans were laid for the whole garden.

For the next three weeks the members of the Bradley Garden Co. were up bright and early each morning, digging, raking, hoeing, and planting.

"When the garden is all made, I will have something new to tell you," Uncle Ned had promised one day, and this made them work all the harder, because they knew that this mysterious "something new" would be something worth hearing about.

And in the meantime such fun as the children had watching for the appearance of the first green sprouts through the soil. There was a race for the garden every morning, and Papa and Uncle Ned were just as enthusiastic as any of the rest.

And finally the garden was done — except for some things that would have to be set out later on, so Uncle Ned said. The beans were up and poles had been placed beside them. The peas were growing rapidly, and the lettuce, beet, and carrot beds were promising fine dinners in a few months. There wasn't another thing to be done — until the weeds grew.

"So now what is it you have to tell us, Uncle Ned?" Harry demanded.

"Come on and I'll show you instead," was the reply, and with all four children following him he led the way across the street to Mr. Franklin's barn.

He swung the door open and as the children peered in, they all gasped with amazement. For there was the prettiest *boat* they had ever seen in their lives, newly painted, and bearing the name in red letters at the stern, "The Bradley." It came to them all at once that this was where Uncle Ned had been spending his spare time when nobody around the house seemed to know where he was.

"And is this yours—ours?" they exclaimed.

"Sure," said Uncle Ned, "and next Sunday we start on a trip up the river in it. We'll camp out a week or two on Bear Island and get back home, all of us, just in time to weed the garden."

A CHICKEN'S RIGHTS APPEAL

A QUEER little chicken went out for a walk,
And, meeting another, both stopped for a talk.
"Don't you think," said the first, "we're dreadfully used?
I, for one, am tired of being abused.
Now to-day when I stepped in a neighboring yard,
Such a cry as was raised! I declare it seemed hard;
Just a few little seeds from the edge of a bed,
And a stone was aimed straight at my poor little head."

And so I just said, "'Twas just so with me —
Such a fuss about nothing I never did see.
Now, for instance, one day I saw on the ground
Some little scarlet fruit, so tempting and round,
I thought I'd just try to see if 'twas sweet,
Or anyway fit for a chicken to eat.
So I scratched around, pecking at one here and there,
When a dozen came flying like balls through the air.
Then I hurried away as fast as I could,
And hid myself close in a neighboring wood,
While the farmer's wife said, 'Let me once catch that hen —
She'd never peck my nice tomatoes again.'
Now imagine the state a chick's mind must be in
When the least little trifle can raise such a din.
I think human beings are far from polite.
Don't they know we must live? Isn't that a chick's right?"

— *Elizabeth A. Davis.*

By the Editor

The Non-Alcoholic Treatment of Pneumonia

THIRTY years ago eminent physicians urged upon their students the use of alcohol, even in enormous doses, in pneumonia, typhoid fever, and other febrile disorders whenever it was thought necessary to sustain the heart. The folly of this practise in pneumonia was early pointed out by Graves, and, at the present time, the best hospital practise, both in this country and Europe, discards alcohol almost altogether in pneumonia. The overworked heart in pneumonia requires, not an agent which will still further weaken its force and waste its energy, as alcohol has been clearly shown to do, but something which will actually energize its weakened muscle while lessening the work required of it.

The effect of alcohol in raising venous pressure, tending to dilate the heart, is in the highest degree calculated to do inestimable damage in pneumonia. The great fatality of pneumonia in men accustomed to the use of alcohol is well known. By a discontinuance of the use of alcohol, its mortality has been reduced from thirty per cent to eight or ten per cent, and even less. In more than one hundred cases of pneumonia in the practise of the writer and his colleagues, in which no alcohol was used, the mortality has been but six per cent. If the pulse is weak, alcohol is certainly not needed, for the only effect can be to weaken it still further.

In the cases in which alcohol is prescribed, the blood pressure is already too low; but, as we have seen, alcohol invariably diminishes blood pressure, and never raises it; hence there can be no indication in such a case for this agent. The cold precordial compress, hot and heating compresses to the lower extremities, the chest pack, and other hydriatic measures, afford most excellent, convenient, and efficient means whereby blood pressure may be raised or lowered at will, and the heart energized, its work diminished, pulmonary congestion lessened, and every other indication in pneumonia perfectly met.

It must not be forgotten that in pneumonia the issue depends entirely upon leucocytosis (transient increase in the number of white corpuscles in the blood). How carefully the up-to-date physician watches the blood count from day to day. As he sees the leucocytosis rising from the normal 7,500 to 30,000, 50,000, perhaps even 100,000 or more, he knows that the body is rallying its forces to battle with the invading microbes, and that, if the battle can be maintained for a sufficient length of time, the victory will be won. By what possible argument can it be made to appear rational to administer an agent whereby leucocytosis is hindered, the development of alexins and antitoxins prevented, when it is only through the operation of these marvelous functions that there is any hope for success in the battle between the vital organism and the death-dealing enemies invading it?

There can be no doubt, as has been asserted by an eminent English authority, James Barr, M. D., F. R. C. P., F. R. S., that "alcohol diminishes the power of the cardiac muscle." This being true, this drug would seem to have no place in the therapeutics of a disease in which everything depends upon the maintenance of cardiac energy.

A Bureau for Children and Mothers

A SENATOR has recently introduced into Congress a bill providing for a Government Bureau to be known as The Children's Bureau. It is not likely the bill will pass, but it ought to pass, and perhaps sometime the legislative conscience will be awakened to a sufficient degree to make it possible for such a bureau to be established. In order to make it operative, however, it would be necessary that its scope should be extended sufficiently to include mothers; for the child's interests are so closely linked with those of its mother that the two are inseparable. Such a bureau, under the care of an intelligent mother, or an intelligent father with several mothers to assist him, would be the greatest possible blessing, not to children only, but to older people.

That the race is deteriorating rapidly there can be no doubt, and this race deterioration is perhaps more clearly seen in children than in any other class. Half of the children born in this country die before they are five years of age. Why is this? Here is a question which the Mothers' and Children's Bureau can study with great profit. Here are a few other questions which might also be studied with great profit: What can be done to stop the annual death harvest of children in July and August, when the death-rate of children in our great cities is often one hundred a day? The number of boy babies born is greater than the number of girls. At the end of a year, however, there are more girls alive than boys. Why is this? Why do more boys die in the first year of life than girls? Why between the years of ten and sixteen do more girls die than boys? The number of epileptic children is increasing at an alarming rate — about three hundred per cent increase in fifty years. What can be done to stop this?

At the present time there are three times as many children born into the world idiots and imbeciles as there were fifty years ago. Why is this? What can be done to stop this mental degeneration?

Lumpy-Jaw in Children

Dr. Curtis, the English physician, reports in the *London Lancet* cases of two children suffering from lumpy-jaw disease of the skin. One was a girl nine and a half years old; the other, a boy of eleven. In the girl the disease appeared on the chest, extending the whole length of the sternum and involving the right side of the chest and the axilla, the skin a purplish red color with enormous patches of ulceration. A diseased mass was also found in the left axilla. In the boy the location of the disease was in the abdomen, in the region of the umbilicus. The appearance of the skin was essentially the same as in the case of the girl. The disease extended from the axilla to the groin. Several operations were performed, but neither case was well when reported.

These cases, as well as numerous others which have been made public recently, show that lumpy-jaw disease, as it is technically termed, may be communicated from lower animals to human beings. The disease is increasing among cattle. It is not an uncommon thing to find cases of lumpy-jaw among the animals brought for slaughter to our great abattoirs. The defective portion of these animals is, of course, condemned by the government officials, but government officials are not always present when lumpy-jaw cattle are killed, and the writer has positive knowledge that in not a few instances these diseased animals are served up as food in the small meat shops. It is not at all impossible that the masses of diseased tissues are frequently disposed of and eaten in the form of sausage and other preparations in which the character of the original materials can be easily concealed.

Does Flesh Food Make for Strength?

Professor Gautier, the noted French authority on diet, who has written the greatest work on this subject that has recently been published, states unequivocably that the human body can be maintained at its very highest state of efficiency without the use of flesh. He quotes a large number of facts and authorities to show that men have greater endurance when they do not eat meat.

Some years ago I was landed on an island in the Mediterranean — one of those little islands off the Turkish coast — and the first thing I noticed in the market place was a man with an enormous burden on his shoulders. He had a little saddle around his shoulders, and upon it carried a load which looked big enough for a mule. He must have been carrying at least four hundred or five hundred pounds. The porters of Smyrna carry even seven hundred pounds on their shoulders. And these people live on dates, figs, bread, and olives.

In sailing on the Mediterranean, I observed the fare of the Greek sailors. They would sit down on the deck and make their meal of nothing but a small handful of ripe olives and pieces of black bread.

In Vienna I saw women carrying great loads of mortar on their heads and shoulders. They would pick up the heavy buckets, put them on top of their heads, and then march, straight as a statue, up the long incline to the top, where the men were laying the brick. For dinner these women had bread and a little cheese, and, I am sorry to add, a mug of beer. The mug of beer gave no added dietetic value, but it was the custom. The real nutriment was in the *swartzbrod* — the black bread — and the cheese.

In northern Italy I have seen women working in the field, a woman and a cow hitched together, pulling a plow, a man driving. These women were not carnivorous women; they were sturdy, hardy women.

In the Black Country in England I saw women working at blacksmithing, often with children of ten or twelve, who had toy blacksmith tools, and were wonderfully apt with them. Women at the forge were making nails for camels' shoes to be used in the deserts of Arabia. One of these women was one of the most skilled workers in that part of the country. From early morning until late at night she stood there at the forge hammering out nails for camels' shoes. Enquiring concerning the diet of these women, I learned that they had soup bone on Sunday, and on Christmas and New Year's they had spare rib, or something of the kind, but never at any other time in the whole year did they taste meat. They were practically vegetarians.

The peasantry of England have a little meat sometimes on Sunday, but never on other days. The peasantry of Ireland rarely ever touch meat. Their diet is oats, various sorts of groats, bannocks, potatoes, and buttermilk. So the natural diet upon which we find the great majority of the people of the world subsisting at the present time, is not flesh food. It is only in America and some other countries that there is such a great consumption of flesh food.

Gin Liver and Pepper

Upon examination, recently, a patient was found to be almost destitute of a liver. His liver was just a little larger than a man's fist. A search was made for his spleen, but none could be found. The first supposition was that he had a gin liver. As politely as possible he was told that perhaps he had taken rather more alcohol than he ought to, at some time in his life.

"I never touched a drop, never drank a drop," was his reply. "I am a total abstainer."

"I am very much surprised," replied his physician. "However, I have met such cases before. Do you smoke a great deal?"

"No, I do not smoke, either."

"Well," the physician began to think, "what shall I charge this man with?" "Tea and coffee, I suppose?" was his next venture.

"No."

"Well," was the mental ejaculation,

"this man is a saint apparently, yet he has been a great sinner."

"It seems your punishment is rather greater than you ought to have," he was then told. "I can not see that you have done anything to entitle you to such a liver as you possess, for you have rather a gin liver."

Said he, "That is what I have been thinking myself — that I have more punishment than I am entitled to."

Just then a thought occurred to the catechizer. "Possibly you take pepper sometimes," he hazarded. "You are rather fond of pepper, aren't you?"

"Oh, yes," he said, "I am a regular Mexican when it comes to peppers."

In the course of the conversation it developed that he was in the habit of eating two large red peppers at every meal, or the equivalent of that. It was then apparent what was the matter with his liver.

Professor Voix, of Paris, six or seven years ago demonstrated that pepper has six times the power of gin to make gin liver. Remember that when you make your potatoes black with pepper the next time. Professor Voix knew that, because he made gin livers in dogs and guinea-pigs by feeding them peppers.

Pain in the Limbs after Meals

People frequently complain of pain in the legs after eating. There is just as much sense in having "leg-ache" after eating as there is in having headache. One is just as natural as the other, and is due to the fact that when one takes food into the stomach, the irritation set up there causes an accumulation of blood in the portal vein, and this compression upon the nerves affects the sympathetic nerves, and the pain in the legs is the reflex irritation. That is one reason for restless sleep after eating.

Eat nothing at night except something simple — a little rice, rice cakes, or rice flakes, for instance, with a little fruit. Butter and bread, fats, cake and pie, etc., keep the stomach worried all night long; whereas some simple thing like rice, or fruit, which requires little digestion, will pass from the stomach in an hour or two, — by bed time, perhaps — and the whole nervous system is given a chance to rest.

Interesting Vegetarians

It will be a matter of interest to those who advocate return to nature principles in diet to know that Mr. Ento Lang, who takes the part of Christ in the Passion Play, the remarkable religious play which is acted every ten years at Oberammergau, is practically a life-long abstainer from flesh meats. Mr. Lang recently stated to an American woman that he had tasted flesh not more than six times in his life, and not once within the past seven years. All the people who take part in this play at Oberammergau are practically abstainers from flesh foods. Those who have seen Mr. Lang report that he is one of the most remarkable living examples of physical manhood, and is as exceptional in mental and moral qualities as in physical development.

There is certainly no reason why a non-flesh diet should leave a man deficient in anything, as the products of the earth, when used in proper variety and quantity, afford all the elements required for perfect nutrition and complete development.

Why Does not the Human Stomach Digest Itself?

Bread, potatoes, butter, sugar,— all kinds of food — red, white, black, green, and every other color — sometimes live things like oysters — can be taken into the stomach and dissolved; yet the stomach in which this process takes place is not itself dissolved. If a person should take out of that stomach its contents — the gastric juice with the foodstuffs undergoing solution — and put them in his hand, the hand would get sore and red. It would begin to prickle, and the contents of his hand would eat down into his hand.

In an operation some time ago — a fistulous opening (the patient's stomach had grown up to the esophagus because of cancer) — it was necessary to make an

opening into the stomach so that food could be introduced below the cancer. It was a pleasure to witness the delight with which that man first ate his food after the operation. He chewed the food in his mouth, and then swallowed it through a rubber tube into his stomach. He enjoyed it, and he got on very well, but there was one inconvenience — the fluid came out from this opening upon the skin. One morning the skin had partly disappeared from the surface of the body where the digestive fluid had come out upon it. The man had digested his own skin!

And why not? If you swallow a live oyster, it is digested in your stomach. The oyster, its stomach, liver, and kidneys, are all digested. If the human stomach can digest oyster's stomach and pig's stomach, why does it not digest itself? That is something which no one can explain. The stomach is simply a living pouch with this marvelously corrosive fluid, gastric juice, dissolving everything that is put into it, yet it does not dissolve the stomach. This is a miraculous preservation. It is like a man standing unsinged in the midst of a roaring fire. This preservation of the stomach is one of the most marvelous things that has ever come to human knowledge; it is one of Nature's mysteries.

Food Combinations and Fletcherizing

Reduce everything to liquid before swallowing it, and it is not a matter of so great consequence what the combinations are.

The reason why vegetables and fruits are difficult to digest together is that they are swallowed in chunks. Fruits digest quickly and pass on, but the vegetables, being so woody, remain behind a long time. Some portions of fruit remain behind and mix with the vegetables. This fruit ferments, sours, decomposes, and makes mischief. If everything which can not be made liquid in the mouth were returned to the plate, the matter of combinations would take care of itself. Reduce everything to liquid, and it enters into harmonious combination. The only notable exception is milk, which does not agree well with vegetables or with fruit; indeed, it does not agree well with anything. If one is going to eat milk, he ought to eat it by itself. People who take milk exclusively, apparently get along with it much better than those who take milk and mix it with other things.

Fats in Nutrition

The food which adds flesh most easily is the carbohydrates, because they are more easily digested than any other food. Most persons can digest two or three ounces of fat in a day fairly well, but almost any one can digest a pound of carbohydrates. A pound of carbohydrates is equal in fattening power to eight ounces of fat. Two ounces of carbohydrates equal one ounce of fat. A tablespoonful of olive oil is just equivalent to a slice of bread in fattening power. It is far easier to digest two ounces of carbohydrates than it is to digest one ounce of fat. Fats have a cloying effect. If one eats nothing but fruit, he does not feel fully satisfied. Fats are peculiar in that they satisfy. Bread is dry and not always appetizing. A little butter renders it palatable and satisfying. Fats have their place in the economy of nutrition. If, on the other hand, you eat too much fat, you will be satisfied before you have eaten enough, because three ounces of fat are sufficient for a whole day; and one needs but twice or three times as much food as that, so it is not best to take too much fat.

Falling of the Hair

Falling of the hair is one of the results of failure of nutrition of the scalp. The nutrition of the scalp may fail prematurely; then the hair will fall prematurely. Sooner or later, in the majority of men, the hair gets thin with advancing age. Women do not suffer as much in this respect as men, for the reason that they treat their scalps better; they do not cover the hair so much, and consequently the head is not so often overheated.

The reason the hair falls out at first is because the root of the hair becomes too weak to hold the weight of the hair. With some people the root is so strong that the hair may grow until it lies upon the floor. Some women have hair as long as the height of their bodies. That is because the root of the hair is very strong. In one person the normal length of the hair is two feet; another has hair three feet long; another has hair four feet long. Some have hair only a foot and a half in length, because when the hair has reached that length for each individual, the weight of the hair is sufficient to pull it out by the root; it drops away and another hair grows in to take its place.

Hair is continually falling out, but in health it is being continually renewed, like the leaves on an evergreen tree. The important thing is to encourage the nutrition of the scalp, so that the roots will be stronger and will support a greater length of hair. One way to accomplish this is by exposure to the air and sun. You never saw a bald-headed Indian. Rubbing the scalp with the fingers dipped in cold water and shampooing the scalp very thoroughly, so as to bring the blood into the scalp, is a good practise. There are no medicines of any great value for this purpose except a few germicidal fluids which are good for cleansing the scalp. Sometimes the root of the hair is weakened by parasites which grow about the root, and when this is the case, remedies which will destroy these vegetable parasites, will discourage baldness, and encourage the growth of the hair. A prescription consisting of twenty grains of resorcin and two drops of castor oil to the ounce of alcohol is very good for this purpose.

Return to Nature

Sir James Crichton-Brown, an eminent English physician, has recently announced his conviction that in order to attain the age of a century, man must go back to the soil and live a more natural, primitive life.

Dr. Brown does not stand alone in this opinion. Thousands of thinking men and women everywhere are becoming convinced of the necessity for a return to nature. More than half a century ago George Ripley, Thoreau, Emerson, Charles Dana, Hawthorne, and more than a hundred others of the leading intellectual lights in New England joined hands in a return-to-nature movement, which is known in history as the Brook Farm Experiment. This experiment failed for lack of financial support, but the idea did not die, and at the present time there are to be found in all civilized countries many men and women who are earnestly advocating the simple life and the return-to-nature idea.

The great success of the open-air method in the treatment of consumption clearly demonstrates the enormous efficiency of natural methods in therapeutics. The out-of-door or fresh-air method has been found equally successful in the treatment of cardiac and other disorders. It can be added that the simple, natural life which has such restorative power must be equally effective as a means of preventing the disease which it is able to cure.

A DIRTY tongue does not necessarily mean dirty food. But it does mean a dirty stomach, a weak body, low vital resistance. There are germs growing in the mouth because the saliva has lost its power to kill them. Look at the dog. He has a clean tongue and clean teeth, because his saliva has high germicidal power. Look in the glass at your own tongue, and you may find it dirty. Look at the horse's tongue; it is always clean. The cow's tongue is always clean. The horse uses horse sense when he eats. Most people have lost the horse sense with which they were born — the instinct whereby they are able to choose the proper food and the proper quantity of food. There is an old Scandinavian proverb which recognizes that idea. It runs something like this: "The ox knows when to come home from grazing, but the fool never knows his stomach's need." Human beings have smothered their instincts. The savage man in the forest has instinct just as much as a savage horse has; the wild man has just as good instinct as the wild horse. It is the civilized man who has lost his instinct.

Question Box

10,302. Grape Juice.—H. P. W., New York: "1. Will port wine increase the supply of mother's milk and strengthen the mother? 2. Is not grape juice as efficacious? 3. Is it not preferable? 4. Is grape juice the nearest substitute to mother's milk in chemical composition and nutritive value of any liquid food known?"

Ans.—1. No.

2. Yes.

3. Yes.

4. No. Grape juice is almost pure carbohydrate. It contains about twenty-four calories of carbohydrates, while mother's milk contains about the same per cent of fat, carbohydrate, and proteids in normal proportion. The grape juice contains but one element, whereas mother's milk contains three, all of which are necessary.

10,303. Rheumatism—Infants' Diet.—A subscriber in Kansas asks: "1. Outline treatment for inflammatory rheumatism. 2. Also for stiffening of the joints. 3. What is the best diet for a child of two?"

Ans.—1. First of all, rest in bed. Fast a week, eating nothing but water, fruits, and a little dry, well-toasted bread or granose biscuit. The amount of food taken should be not more than one-fourth the ordinary. This will enable the system to burn up the débris, and will promote the normal activities of the body.

Give the patient a good sweat two or three times a day. Keep him sweating much of the time by means of a hot blanket pack, or electric-light bath, hot fomentations, hot bottle, and other measures. A very hot full bath at a temperature of 105° to 110° for three to ten minutes is one of the very best means of relieving pain in acute rheumatism.

2. A large fomentation around the joint morning and night, followed by a heating compress, which consists of a thin towel wrung out of very cold water, wrapped around the joint, covered snugly with mackintosh, then all covered with cotton or flannel. If there is much pain, and the cold water can not be endured, then after the hot fomentation apply a great mass of cotton, and cover this with mackintosh and flannel.

3. Granose biscuit, granose flakes, corn flakes, potatoes well mashed, a little sterilized cream, zwieback, and fruit in abundance; a small allowance of the best vegetables. Great pains must be taken to teach the child to chew well.

10,304. Fruits—Peanut Butter.—Mrs. N. E. J., Oregon: "1. What do these symptoms indicate: dizziness, ringing in the ears; a sense of constriction in the small of the back; cold feet; black spots before the eyes; insomnia; ravenous appetite? 2. Prescribe treatment and diet. 3. Would you recommend peanut butter for me? 4. What kind of fruit would be best?"

Ans.—1. You probably have nervous dyspepsia.

2. You ought to go to a sanitarium for a thorough examination and instruction how to live. If you can not do this, possibly the following suggestions may help you some: Adopt a natural dietary. Take great pains to chew every article of food as thoroughly as possible. Do not worry. Live out of doors. Take a warm bath at night two or three times a week, and a cool bath every morning. Avoid all kinds of fried foods, and the excessive use of fats. Keep the bowels empty. Take a large enema at least three times a week, putting a little soap in the water. It is better to have the water a little cool, say at a temperature of 75° or 80°.

3. Ordinary roasted peanut butter is indigestible.

4. All kinds of fruits are good for you.

10,305. Constipation.—H. J. W., New York: "I am thirty-one, and weigh one hundred and thirty pounds. Have no bad habits. Occupation active and out of doors. Use no meat. My diet is as follows: Beaten whites of eggs, hard-boiled eggs, plasmon, protose, nuttolene, nut butter,

granose, toasted wheat and corn flakes, shredded wheat, pulses, and much fruit (mostly dried); no butter, cheese, or milk, and few vegetables; two meals a day — 4:00 A. M. and 12:00 M.; average of 60 gms. (2 oz.) proteid, 220 gms. (8 oz.) carbohydrate, and 25 gms. (nearly 1 oz.) fat at a meal. Have no pain or aches except in the stomach when too much food is eaten. Always tired and excited; very constipated; enemas occasionally fail completely, and am compelled to resort to medicine. Stools by enema are black and watery. Practise Fletcherizing very strictly, rejecting all insoluble residue and fiber. Would this produce constipation? Would appreciate your advice."

Ans.— You are eating too much. Your calories foot up to nearly 2,800, which is just a thousand too much. Cut off two ounces of proteid. You are taking twice as much proteid as you should; in fact, you could cut the proteid down to an ounce and a half with advantage. The amount of fat you are taking is about right. You might possibly take a little more. The carbohydrate ration is too large. You should take daily about 180 calories, or an ounce and a half, of proteids; about 450 to 500 calories, or two ounces, of fat; and about 1,200 calories, or ten or eleven ounces, of carbohydrates. You are eating, as you see, about two ounces too much proteid, and five or six ounces too much of carbohydrate. You are consuming too much energy in the digestion of surplus food.

Your stools are black and watery because the colon is infected. There is an accumulation of fecal matters in the colon which become putrescent, and a source of autointoxication. The colon is dilated. You perhaps will have to resort to the use of the enema for a short time. The use of malt honey, peptol, raisin jelly, fruit marmalades, granose biscuit for bread, an abundance of fruit, apple juice, and especially the free use of pecans will help your bowels. After emptying the bowels with a hot enema, inject a half pint or a pint of cold water. This will tone the bowels and prevent harm from the use of the enema for some little time if necessary to get the colon into a healthy state. A month spent, say at the Battle Creek Sanitarium, will do you good. You need to learn how to live the natural life.

10,306. Itching of the Body.— C. F., District of Columbia: "For six months I have had intense itching of the entire body at night after undressing. I take cold and warm baths, eat fruit, and exercise night and morning. Please advise."

Ans.— Take a very hot, very short bath at night before going to bed. Begin the bath at 102° and rapidly raise the temperature to 110°. After the bath the entire body should be rubbed with alcohol containing half a dram of carbolic acid to the pint. This will probably afford relief. In some cases the very hot bath alone is sufficient. Talcum powder may be freely used. Adopt thoroughly hygienic, or return-to-nature, diet and live outdoors as much as possible.

10,307. Potatoes — Green Fruit — Wet Girdle.—E. H. A., California; "1. In the table on page 370 of 'Home Hand-Book,' why do you omit the percentage of starch? 2. What is the percentage of starch in Irish potatoes? 3. In sweet potatoes? 4. How do sweet potatoes compare in food value with Irish potatoes? 5. Are they easily digested? 6. Are very green apples and pears, etc., rendered wholesome by cooking? 7. Are apples and potatoes from which the decayed portion has been removed, wholesome? 8. Is the wet girdle worn at night a help for one with weak stomach? 9. Should its use be continued indefinitely? 10. Will the use of the hot water bag on the abdomen for a short time become debilitating if too long continued? 11. Do you recommend this used in this way for a weak stomach? 12. Is it well for one with abnormal appetite to weigh or measure out his food for each meal? 13. How much of various foods should be taken per meal or day?"

Ans.— 1. Starch is indicated under the head of non-nitrogenous substances.

2. Twenty-one, as shown in the table.

3. 25.3.

4. They have a somewhat higher nutritive value, about six to ten per cent.

5. Yes, but they are not quite so easily digestible as the Irish potato, for the reason that they contain more woody substance.

6. Very green fruit should not be eaten in any form. Cooking, however, to some extent takes the place of the natural process of ripening.

7. No.

8. Yes.

9. It does no harm provided care is taken to prevent an eruption of the skin. This may be done by washing the skin with soap and water daily, and boiling the bandage once a day.

10. No.

11. Yes, if there is pain or an uncomfortable sensation.

12. Yes, until he finds out how much he ought to eat and becomes accustomed to the right quantity.

13. That depends upon the individual patient. We would advise you to address the

Dietetic Department of the Battle Creek Sanitarium Company, Ltd.

10,308. Tabes Dorsalis—Gastric Intestinal Catarrh.—A. M., New Jersey; "1. Have you a work treating on tabes dorsalis, its home treatment, etc.? 2. What home treatment and diet are best for gastric intestinal catarrh?"

Ans.—1. You will find the information given in "Home Hand-Book."

2. See answer to question 10,291, March number.

10,309. Goiter.—B. G. L. E., Pennsylvania: "1. Has the operation of removing a goiter ever been performed at the Battle Creek Sanitarium? 2. Is it true that only one physician in the United States has performed this operation? 3. Is it considered particularly dangerous?"

Ans.—1. Yes.

2. No.

3. It is, of course, a difficult and delicate operation, and should be undertaken only by one who is skilled in that sort of operations.

10,310. Dark Circles under the Eyes—Catarrh.—A Mississippi subscriber asks: "1. What causes dark circles under the eyes and a weak and haggard expression when a person is well? 2. Outline treatment. 3. Prescribe treatment for catarrh of the upper throat and head."

Ans.—1. A person who has such an expression is not well. He may feel quite well, but he is not in as good health as he should be. Hidden mischief is at work, which will undermine his constitution sooner or later.

2. Out-of-door life, vigorous daily exercise, the cool morning bath, a natural diet.

3. The measures suggested will be found helpful in cases of catarrh of the nose and throat. In some cases, however, the assistance of a skilled specialist is needed to make such local applications as are required, or to remove any obstruction which may exist.

10,311. Emaciation.—E. B., Kentucky: "A woman past sixty, of ordinary height, is losing flesh rapidly, weighing but eighty-three pounds when dressed; has bronchitis, and raises phlegm; suffers no pain; sleeps well; has little appetite. Please prescribe."

Ans.—This patient should visit a sanitarium. Her case is too serious to be successfully treated at home, still a few suggestions may be helpful. A fomentation may be applied across the chest for three to five minutes, long enough to redden the skin well. Follow this by a towel wrung very dry out of cold water, covered with mackintosh, and afterward covered well with flannel, so that the parts will warm up quickly, and remain warm. Repeat the hot applications two or three times a day. The patient should wear the moist compress, or chest pack, all the time. The general cold wet hand rub or mitten friction should be employed once or twice daily. The patient should live in the open air. The diet should be as nourishing as possible. Potatoes, yolks of hard-boiled eggs, spinach, well-toasted bread, fruits, and health foods all are valuable. Buttermilk may be used with advantage; sweet, freshly prepared dairy butter may also be used. The patient should be made to gain in weight as rapidly as possible, and should be kept out of doors night and day if possible.

10,312. Stomach Trouble—Eczema.—H. R. R., Missouri: "1. Suggest diet and treatment for acidity of the stomach and headache after meals. 2. Am twenty pounds below normal weight, and have eczema on my face. Prescribe."

Ans.—1. Make your diet consist of well-toasted bread, corn flakes, granose flakes(potatoes, spinach, and similar foods; good sterilized dairy butter, and such fat-containing nuts as pecans and pine nuts, of which two ounces may be taken after each meal. Masticate all food very thoroughly. A fomentation may be applied over the stomach after eating, if there is pain. Care should be taken to keep the body warm. A very hot foot bath will often relieve both acidity and the headache. The fomentation may be applied to the stomach half an hour before eating, and taken off just before eating, to be followed by the moist abdominal bandage, which should be kept in place during the meal, and for an hour or two afterward.

2. You need more fat. About two ounces of pecans or pine nuts at each meal would be good for you, also peptol. Take great care in the diet. Avoid meat.

Wash the face with resinol soap with very hot distilled water or rain water twice a day. Afterward apply the following lotions:—

DERMATITIS LOTION NO. 1

Carbolic Acid	1 dram
Listerine	1 dram
Rose Water	3 ounces
Alcohol qs. ad.	6 ounces

DERMATITIS LOTION NO. 2

Ichthyol	2 drams
Lime Water	½ ounce
Oil of Sweet Almonds	½ ounce
Glycerine	6 drams
Rose Water	6 drams

Literary Notes

There is a widespread and timely interest in the preservation of bird life, and among the most earnest and vigorous workers is a great body of women. They deplore the cruelty and heartlessness of the hunter, and the small boy with his air-gun and slingshot. Yet the cherished pet [the cat] is an agent more destructive than all others combined. State ornithologist Edward Howe Forbush of Massachusetts has given the subject close study for many years, and he estimates the average number of birds killed per cat to be fifty per year. Some closely guarded pet cats kill less, while wild and half-wild ones kill many more. He says:—

"I base my estimate of fifty birds per year per cat partly on my own observations, partly on statements of others. When I lived in Medford, three cats cleaned out nearly all the birds' nests in the neighborhood. Cats watch robins' nests and when the young are hatched, take them. In good hunting grounds ten old birds and forty young per year is a low estimate. Probably very few cats will make such a record the first year, but as they grow older and get to roaming they can easily excel it. I have known one cat to kill all the nestlings in six nests and two of the old birds in one day."—*W. B. Thornton, in April* **Good Housekeeping**.

Nothing else will take the place of good cheer and laughter at meals or any other time in the home. There is a vital connection between amiability and digestion — between good cheer and assimilation. Laughter is the best friend the liver has, and depression,

or *melancholia,* its worst enemy. Numerous experiments have shown that mirth and cheerfulness stimulate the secretion of the gastric juice, and are powerful aids to digestion. Yet knowing this, many of us sit as gloomy and absorbed at the table as at a funeral. In many homes, scarcely a word is spoken at meals, outside of requests for an article of food.

The meal hour ought to mean something besides supplying a mere animal function. The bell which calls the family to the table ought to be the signal for a good time generally, when all cares should be thrown off and everybody appear at his best. It ought to signalize the time for mirth and laughter. It ought to be looked forward to by the members of the family as the recess or nooning is looked forward to by pupils in school, as a let-up from the strenuous life.— *Orison Swett Marden, in* **Success Magazine.**

"**Nature Cure.**" By Wilhelmine H. Kupper, Philadelphia. John C. Winston Co.

This work was written for the laity by a layman, or rather a laywoman. It treats chiefly of hydrotherapy, and presents many principles and methods involving the use of water in simple form. The writer recommends a non-flesh dietary, the outdoor life, and other wholesome and simple methods of living. Although this work seems to be somewhat too brief to present the subject with which it deals in a comprehensive way, the effect of its circulation will, on the whole, be on the side of progress. Such works ought to be encouraged, even though one may not be able to endorse every statement made or method described.

"**Science and Religion.**" By Benjamin F. Loomis, New York. Fowler and Wells Co.

This work is an attempt to reconcile the ancient mystical doctrine of astrology with modern science and the Christian religion. The author has succeeded about as well as a pharmacist would succeed in an attempt to make a clear and homogeneous mixture out of glue, coal tar, and water. Astrology was a system based upon ignorance and superstition, and was long ago consigned to the great limbo into which had been cast the effete products of its predecessors. It would be better to allow these long-defunct vagaries to remain with the dead people who developed them.

"**Civilization by Faith.**" John G. Wooley, Chicago. The Church Press.

This is a powerful book. John G. Wooley is the sworn enemy of the saloon and all the wretched offspring of this mother of harlots. This little book of 136 pages is brimful of hard hits against vice and intemperance. There is not a dull line in it. As one cons its pages he can hear the writer's great hammer beating. The air seems resonant with the splendid, stentorious tones of an orator who has dedicated his magnificent talents to the work of emancipating men from the bondage of the saloon and the power behind it. It is good for the country, for the race, for the age, that John G. Wooley lives, and that he has courage born of a deep conviction of a divinely appointed mission to struggle on in the face of obstacles which to others would seem insurmountable. Few living men have accomplished more by single-handed effort than has John G. Wooley. For the last few months Mr. Wooley has been making a most successful campaign through Australia and New Zealand, and has given a new impetus to the temperance movement in these great countries.

"**Self-Building through Common-Sense Methods.**" By Corilla Banister. Two hundred and five pages. From the press of Lee and Shepard, Boston.

Practical lessons regarding physical upbuilding are combined in this work with theories regarding spiritual development, the whole making a very readable book. Especially of value to the seeker after health and strength of mind and body are the opening chapters on "Physical Perfection," "Freedom," and "Food." In the sections on "Simple Living" and on "Bathing" valuable lessons are embodied. The excellent ideas of the author on matters of diet as well as on proper care of the body in other ways, are heightened and enlivened with apt illustrations. Scores of remarkable incidents are interwoven with the sound instruction on rational physical culture.

The American Boy for April will certainly please the boys, with its 101 pictures illustrating stories and leading articles of absorbing interest to the young. Boys who love animals will follow with eager delight "Shaggycoat," the biography of a beaver, by Clarence Hawks, the blind naturalist.

GOOD HEALTH

A Journal of Hygiene

Subscription Price, $1.00 a Year Single Copies, 10 cents

PUBLISHED MONTHLY BY

GOOD HEALTH PUB. CO.

115 Washington Ave., N.

BATTLE CREEK, - - - MICHIGAN

It has been said that a year's reading of **The Youth's Companion**, if not in itself a liberal education, is a foundation for it, and a valuable supplement to it. The special articles *The Companion* prints are written expressly for it by the men and women who lead in material, intellectual, and moral progress; through them the reader is admitted to laboratories where momentous discoveries are unfolding; to the confidences of experts in educational work of all kinds, and to a knowledge of whatever is being sought for or done to enrich the world of to-day and the world of to-morrow.

HEALTH is a boon we value most
When nearly giving up the ghost.
'Tis only when we feel we're sinking,
We're satisfied to do some thinking
Of how we should ourselves behave
In order best ourselves to save
From neurasthenia's dire perdition,
Abysses deep, where no contrition
Can rescue from the pangs and woes
Of gout and rheumatismal throes.
Turn, sinner, while 'tis called to-day,
Turn quickly from your sins away,
And follow Nature's laws so true;
There's joyous health in store for you.
Come, turn your steps toward Nature's ways,
And comfort find, and length of days.

—*K.*

COLORING MATTERS AND COMMERCIAL CHEATS

In **The Delineator's** Campaign for Safe Foods, Mary Hinman Abel writes, in the May number, a chapter on Coloring Matters and Commercial Cheats of vital importance, and after reading it one realizes something of the impositions that are practised on unsuspecting households. Mrs. Abel says: —

"No caterer can afford to disregard the esthetic side of the food question. To please the eye is to prepare a welcome reception for the food itself, and if this were the whole story, there would be no heated discussions on the subject between the manufacturer and food inspector, no laws passed to suppress the coloring of foods. But the use of artificial coloring has brought forward two serious possibilities: first, that poisonous ingredients will be used for the purpose; second, that second-grade or even spoiled foods may be made by this means to appear better than they are, and so deceive the purchaser. By the use of mineral coloring, peas, beans, and other vegetables are sometimes greened before canning by being boiled in a very dilute solution of copper sulphate. The practise has never been common in this country, and coppered vegetables are now excluded from our markets by law. The leading brands of butter color as examined by chemists, are made of coal-tar. These colors are also used extensively to give the desired tint to beverages, as soda water, and to restore the color to fruit and vegetables that have lost it in the process of cooking. Most important of all, these colors are the great reliance of the manufacturer who puts up a very cheap grade of jam, jelly, and catsup, since tomato and apple skins and core are not up to the mark in flavor or color. Our people should again learn what should be the color of milk and cream; to accept the fact that heat must change the bright hues of fruit and vegetables, and to learn the effect of time and temperature on the color of meat."

We have received the announcement from the Bradley Polytechnic Institute (in affiliation with the University of Chicago) of its Summer School of Manual Training and Domestic Economy, to be held July 2 to August 4, 1906, at Peoria, Ill.

This Summer School aims to give thorough instruction in a wide range of manual training and domestic science work. While its courses are planned with special reference to the needs of teachers, it is not essentially a school of methods of teaching, but a school where one may learn the fundamental processes of a variety of handicrafts suitable for schools. Every reasonable effort is made to give each member of the school the greatest possible amount of practical help.

The building and its equipment are among the best in the United States for the purpose.

Sanitas Vibratory Chair

(Patented)

The only Vibratory Chair made. It gives vibrations to the entire body. Frequency and intensity may always be regulated by the operator. Equipped with foot vibrators, vibrating rod for hands and arms, as shown in illustration, and vibrating standard for the entire spine.

We also manufacture a small vibrator for local applications. It employs a regular one-eighth-horsepower electric motor (for either direct or alternating current). The most practical and powerful hand vibrator in existence. Fully guaranteed. **Price only $30.**

THERAPEUPTIC LAMPS

with **perfectly made** parabolic reflectors, giving a higher efficiency than any other lamp and at less than half the cost. Our **high power incandescent lamp** outfit sells for $10. Our arc lamp outfit, fitted with perfect parabolic reflector, standard, rheostat, switches and fuse block, complete, sells for $30.

Full particulars regarding these and others of our modern medical appliances freely given upon application. Address

MODERN MEDICINE CO.,
Battle Creek, Mich.

Manufacturers and Sales Agents of

DR. J. H. KELLOGG'S Medical Appliances.

UNION PACIFIC
OVERLAND ROUTE

News of the Day Bulletined on This Train

News Bulletins are issued twice a day for the passengers on the

OVERLAND LIMITED

and "extras" if important news warrants them. That's but one of the many reasons why you should ask for tickets via the

UNION PACIFIC

when you go to California. There are many reasons why everyone should go to

California

For full information inquire of

E. L. LOMAX, G. P. A.

OMAHA, NEB.

1 CENT IS ALL IT WILL COST YOU

to write for our big **FREE BICYCLE** catalogue showing the most complete line of high-grade **BICYCLES, TIRES** and **SUNDRIES** at **PRICES BELOW** any other manufacturer or dealer in the world.

DO NOT BUY A BICYCLE from *anyone*, at *any price*, or on *any kind of terms*, until you have received our complete **Free Catalogues** illustrating and describing every kind of high-grade and low-grade bicycles, old patterns and latest models, and learn of our remarkable **LOW PRICES** and **wonderful new offers** made possible by selling from factory direct to rider with no middlemen's profits.

WE SHIP ON APPROVAL *without a cent deposit*, **Pay the Freight** and allow **10 Days Free Trial** and make other liberal terms which no other house in the world will do. You will learn everything and get much valuable information by simply writing us a postal.

We need a ***Rider Agent*** in every town and can offer an opportunity to make money to suitable young men who apply at once.

$8.50 PUNCTURE-PROOF TIRES ONLY $4.80 PER PAIR

Regular Price $8.50 per pair. ***To Introduce We Will Sell You a Sample Pair for Only*** **$4.80**

NAILS, TACKS OR GLASS WON'T LET OUT THE AIR

(CASH WITH ORDER $4.55)

NO MORE TROUBLE FROM PUNCTURES.

Result of 15 years experience in tire making. **No danger from THORNS, CACTUS, PINS, NAILS, TACKS or GLASS.** Serious punctures, like intentional knife cuts, can be vulcanized like any other tire.

Two Hundred Thousand pairs now in actual use. Over Seventy-five Thousand pairs sold last year.

Notice the thick rubber tread "A" and puncture strips "B" and "D," also rim strip "H" to prevent rim cutting. This tire will outlast any other make—SOFT, ELASTIC and EASY RIDING.

DESCRIPTION: Made in all sizes. It is lively and easy riding, very durable and lined inside with a special quality of rubber, which never becomes porous and which closes up small punctures without allowing the air to escape. We have hundreds of letters from satisfied customers stating that their tires have only been pumped up once or twice in a whole season. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially prepared fabric on the tread. That "Holding Back" sensation commonly felt when riding on asphalt or soft roads is overcome by the patent "Basket Weave" tread which prevents all air from being squeezed out between the tire and the road thus overcoming all suction. The regular price of these tires is $8.50 per pair, but for advertising purposes we are making a special factory price to the rider of only $4.80 per pair. All orders shipped same day letter is received. We ship C.O.D. on approval. You do not pay a cent until you have examined and found them strictly as represented.

We will allow a **cash discount** of 5 per cent (thereby making the price **$4.55** per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. We will also send one nickel plated brass hand pump and two Sampson metal puncture closers on full paid orders (these metal puncture closers to be used in case of intentional knife cuts or heavy gashes). Tires to be returned at **OUR** expense if for any reason they are not satisfactory on examination.

We are perfectly reliable and money sent to us is as safe as in a bank. Ask your Postmaster, Banker, Express or Freight Agent or the Editor of this paper about us. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a small trial order at once, hence this remarkable tire offer.

COASTER-BRAKES, **built-up-wheels, saddles, pedals,** parts and repairs, and everything in the bicycle line are sold by us at half the usual prices charged by dealers and repair men. Write for our big **SUNDRY** catalogue.

DO NOT WAIT but write us a postal today. **DO NOT THINK OF BUYING** a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it **NOW.**

MEAD CYCLE COMPANY, Dept. "J L" CHICAGO, ILL.