

New Home of the GENUINE Toasted Corn Flakes



The LARGEST CEREAL FACTORY in the WORLD

Fire destroyed our main factory July 4th, last.

It was seemingly a disastrous way of celebrating a grand day.

- But a little thing like a big fire could not seriously hinder so great a success as the genuine Toasted Corn Flakes.
- It WAS annoying at the time. We were behind on orders there was no let-up to the demand. So we were compelled to crowd our two remaining mills to the limit. We were forced to find temporary quarters to make good as far as possible the shortage which the destroyed factory had caused. But the final outcome of the fire will overcome any inconvenience that it may have caused the public, the trade or ourselves.
- Our immense new fire-proof factory is now being pushed to the most speedy conclusion. Over 150 workmen are rushing the work as fast as possible.
- This factory will be the largest and best equipped of its kind in the world. New machinery and every convenience to facilitate the manufacture and handling of this delicious food will be installed.
- Unless the demand is simply unprecedented unheard of we will in a very short time be able to catch up on orders and supply all calls.
- If you are having any trouble in getting your regular allotment of the genuine Toasted Corn Flakes, please be patient just a little longer. Don't be misled into stocking up on an imitation. And remember that a concern that urges you to put in a substitute under such circumstances is not entitled to any consideration from fair-minded members of the grocery trade.

TOASTED CORN FLAKE CO., Battle Creek, Mich.

1908

ANNOUNCEMENT

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O YEAR has seen such great progress in health reform as has the year which is just drawing to a close. This statement has been made before. It will be made again. For each succeeding year there is ample warrant for averring with renewed emphasis that the doctrine of simple living has made better progress

than ever before.

There was a time when GOOD HEALTH, standing as the avowed harbinger of a new health era, occupied a peculiar ground in the eyes of the thinking world. Its ideas were first branded as "fanatical theory." Then they were viewed as "weird fancies"; then as "peculiar notions." Finally, as the press, the pulpit, and the platform begin to echo almost daily the very utterances made by GOOD HEALTH a decade before, thinking men and women began to reckon seriously that the ground GOOD HEALTH stands upon is purely *rational*.

WHEN it was announced last December what GOOD HEALTH would have in store for its readers the ensuing year, the remark was made that a good many good things which could not be counted on in the beginning would be forthcoming within the year as appreciable surprises. This conjectural promise has been more than lived up to. Many of the best features in the 1907 magazine have come wholly as surprises to the readers, and in not a few instances were surprises to ourselves as well. It has been deeply gratifying to receive many words of appreciation and encouragement from the GOOD HEALTH readers. Complete satisfaction has been the rule. But this has not altered in any way the determination on the part of the GOOD HEALTH editors to make labors of the year 1908 so far outclass all previous efforts as to leave not even a basis for comparison.

There is every reason why this should be so. We are assured during the coming year of editorial co-operation on the part of such men as Prof. Irving Fisher, who occupies the chair of Political Economy at Yale, under whose direction numerous experiments along health of utmost importance have been conducted; of Horace Fletcher, the father of "Fletcherism"; Dr. Wilfred T. Grenfell, the famous Labrador medical missionary; Dr. W. H. Wiley, chief of the Bureau of Chemistry of the United States Department of Agriculture; Upton Sinclair, the celebrated author of that unusual book, "The Jungle." Besides

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the moral assistance which these and other able writers will give us, we are assured of articles from the pens of some of these men for several numbers of GOOD HEALTH during the coming year. It is a gratifying and noteworthy fact that so many able men of this and other lands are giving their attention to the



J. H. Kellogg, M. D.

mastery of problems of right living.

DR. KELLOGG'S editorial pages and special articles the coming year will carry with them greater interest than ever before, for with each year there is an increasingly larger field to draw upon for information and illustration. Dr. David Paulson, Superintendent of the Hinsdale Sanitarium, whose able work in the social purity field and before the Chautauqua assemblies attracted much merited attention during the past year, will again be a frequent contributor to the magazine. Mrs. E. E. Kellogg will continue her interesting articles, especially in behalf of the housewife and along the lines of modern domestic

science. No one has made a greater study of these and different subjects than Mrs. Kellogg, who for many years was in immediate charge of the domestic science department of the Battle Creek Sanitarium and who is well known as the authoress of two modern pure-food cook-books. Dr. Kate Lindsay's popu-

lar studies on prevention of common diseases will be continued and will be interwoven with other features of equal interest. Dr. Benton E. Colver, whose articles on physical culture have been among the most appreciated features of GOOD HEALTH the past year, will continue as a contributor.

Others from whom we undoubtedly will hear are Dr. Mary Wood-Allen, editor of *American Motherhood*; Rev. Charles C. Creegan, D. D., Secretary American Board Commissioners of Foreign Missions; Hon. Samuel Van Sant, ex-Governor of Minnesota; Charles James Fox, Ph. D.; Charles Michael



A

David Paulson, M. D.

Williams, a well-known magazine writer; Mabel Howe-Otis, M. D.; Alonzo Trevier Jones, George C. Tenney, Carolyn Geisel, M. D., Chautauqua lecturer on



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hygiene and health; Dr. F. J. Otis, Mrs. M. J. Emmons, Emma Winner-Rogers, and others.

With such an excellent array of talent we feel perfectly justified in predicting an unusually successful year for GOOD HEALTH from the standpoint of the editorial contents of the magazine. Now for the consideration of another point.

It has been exceedingly pleasing to hear from the list of some of our prominent advertisers and advertising agencies, men who are accustomed to exercising sharp criticism with regard to the typographical appearance of magazines which come under their observation,—it has been exceedingly gratifying, we say, to have these men tell us that GOOD HEALTH is one of the handsomest magazines that reaches their tables, and is indeed the handsomest *health* magazine ever published. We intend to live up to this reputation,—and to improve upon it.



Benton Colver, M. D.

Within the past few months, arrangements have been completed for such changes as will give GOOD HEALTH greatly increased facilities for turning out handsome work typographically. We can predict that during the coming year every number will be well worth preserving as a work of art. It is because we appreciate that a great many readers of GOOD HEALTH do preserve it, that we



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G. C. Tenney

have given the time and attention to this point that we have, so that the magazine will be well worth binding at the end of each year and preserving in permanent form.

FIVE SPECIAL NUMBERS are planned for 1908. The first will be the SCIENTIFIC PROGRESS NUMBER, which will be issued in January. At the introduction of this notice there was stated a sufficient reason for the establishment of this special number. Certainly in no previous year have such tremendous strides been taken in the matter of scientific progress along health lines

as in 1907. In the January number an attempt will be made to summarize to some degree some of the important results of the year's scientific progress.

In April, as heretofore, a special HOUSEKEEPER'S NUMBER will be provided, filled with helpful hints for the home-maker gleaned carefully from every available source.



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The OUTDOOR LIFE NUMBER in June has been such a tremendous success the past two years that there is nothing else to do but repeat this special in June, 1908. We will not go over the same ground, however. Indeed, there are so many sources to draw upon for new material that the question will be what to select, rather than of where the necessary amount of matter for such a number as this shall be obtained.



Mabel Howe-Otis, M. D.

The MOTHER'S NUMBER in August of 1907 proved to be so great a success that this, too, will be repeated in 1908 and will be rendered just as valuable to the mothers who will read it as the GOOD HEALTH staff of editors and contributors can make it.

In November a PURE FOOD NUMBER will be issued. This will follow some new and very interesting lines in its special articles, and it is to be hoped that the progress of the pure food movement during the coming twelve months will afford an abundance of new material.

A post-card canvass of a number of representative GOOD HEALTH readers conducted a few weeks ago, showed that the Question Box is one of the two most popular features of the magazine. Special arrangements have been made, therefore, to give this department the most careful attention. The Question Box is conducted

personally by Dr. Kellogg, the editor, and efforts will be made the coming year to make it meet the approval of every reader even more satisfactorily than it has in the past.

Not one of the least interesting features will be a special series of articles by Lenna F. Cooper, Principal of the Battle Creek School of Health and Household Economics, dealing with settlement work. The movements which are being carried forward in all parts of the country for the uplifting of the poor and for the eradication of those conditions which make for uncleanliness and unhealthfulness render this subject one of



Miss Lenna Cooper

more than ordinary importance. Miss Cooper brings to the task of writing these articles a valuable experience, and the series is bound to be one of unusual interest.

The publishers of GOOD HEALTH invite the co-operation of every reader toward the achievement of the high purpose that has been established, and cordially wish each one a year of prosperity and health.



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 $\mbox{Entered at the Postoffice at Battle Creek, Mich., as second-class matter, } \\ \mbox{by the Good Health Publishing Co.}$

THE PUBLISHERS' PAGE

DID you ever try to saw wood over the telephone?

Of course we don't expect you to answer, but we want you to understand just what we have had to contend with for eighteen months past. For publishing a magazine with the editorial office in one town and the mechanical department in another, is practically the same thing as sawing wood over the telephone.

That is what we were doing, editing in one place and printing in another. And in spite of the best efforts put forth by both editorial and mechanical departments, we were continually losing time, strength, and energy. As the magazine advanced, as every reader must know it has advanced in the past two years, it has become more and more necessary to effect more satisfactory printing arrangements. Last month these arrangements were completed, and with this issue conditions have gone into effect which we hope will make for constant improvement of the magazine. The organization is improved, we believe, in every particular, and the editorial, business, and mechanical departments are in closer touch with one another than they have been for many months before.

The picture from which we have made the cover this month was taken by the GOOD HEALTH photographer late last spring. Although we have given it the title "The First Snow," it was really the *last* snow of the season. A close student of nature would readily know the difference and observe the misapplication of the caption. Yet in general, this is the scene which we will probably see from our office windows just about the time this magazine reaches you, or perhaps a little later. The picture was taken right in front of the GOOD HEALTH office. It's a mighty pretty picture, we think; what do you think?

What would you think of the idea of getting out a book containing about one thousand of the most important and interesting questions that have appeared in the past several years in the Question Box department of GOOD HEALTH? We are seriously considering doing this very thing, and some of our friends have remarked that they consider it would be a very sensible thing to do. If the book is published, a special opportunity will be given GOOD HEALTH subscribers to obtain the book at a low price in connection with GOOD HEALTH subscriptions.

The season for new subscriptions is upon us with this month. Thousands of dollars will be spent in November and December for magazines. Much of this will be paid for worthless matter that had much better be used to light fires with. You can do a good work, if you will, by influencing people to take Good HEALTH. We shall be glad to co-operate with you in every way we can.

THE PUBLISHERS.

ALPHABETICAL LIST OF MAGAZINES

Good Health Clubbing Offers

NOTE.—Good Health will be furnished in connection with any magazine listed below at the price printed in the *second* column. The first column of figures shows the retail price. The difference between the two prices represents the saving through the Good Health clubbing offers. Canadian subscribers should add 50 cents for each publication ordered to cover extra postage. Foreign subscribers should add \$1.00.

	Regular	Special Combi-	Regula	
Go	with od Health	nation Price	with Good Hea	nation
A	ou mouron	11100	L	11100
	\$2.00	\$1.65	Lippincott's \$3.50	\$2.75
American Motherhood	2.00 3.00	$1.75 \\ 2.50$	Literary Digest 4.00 (Renewals add 50 cents)	3.40
Automobile Topics Appleton's Magazine	2.50	2.00	Ladies' World 1.50	1.30
American Boy	2.00	1.65	Life Boat 1.50	
American Photographer	2.50	2.00	Life and Country Life 7.00	6.20
Ainslee's	2.80	2.35	М	
Atlantic Monthly	5.00 3.00	$ \begin{array}{r} 3.50 \\ 2.50 \end{array} $	McCalls 1.50	
Arena	0.00	2.00	Musician 2.50	
Broadway Magazine	2.50	2.00	McClure's 2.50 Medical Missionary 2.50	1.70
Burr-McIntosh Monthly	4.00	8.00	Medical Missionary 2.50 Metropolitan 2.50	1.75
0			Missionary Review 3.50	2.90
Commoner	2.00	1.60	N	
Cosmopolitan	2.00	1.65	National Magazine 2.50	1.80
Collier's	6,20	6.20	Nature Study Review 2.00	1.50
Colored American Magazine Camera	$2.00 \\ 2.00$	$1.75 \\ 1.75$	National Home Journal 1.50	1.25
Current Literature	4.00	4.00	New England Magazine 4,00	3.40
Cooking Club	2.00	1.35	0	
Country Gentlemen Country Life in America Correct English	2.50	1.90	Outdoor Life 2.30	2 00
Country Life in America	5.00	4.00	P	
Charities and the Commons	$2.00 \\ 3.00$	$1.60 \\ 2.65$	Pathfinder 2.00	
Camera Craft	2.00	1.50	Pearson's 2.50	
Children's Magazine	2.00	1.65	Physical Culture 2.00	1.50
Charities and Commons	3.00	2,60	R	
Century	5.00	4,50	Review of Reviews 4.00	
D			Reader 4.00) 2.35
Delineator	2.00	1.90	Statistics S	
Dogdom Daily Bible	2.00	$1.65 \\ 1.35$	St. Nicholas 4.00 Success 2.00	
E	1.00	1.00	Scrap Book 4.00	
Etude	2.50	2.00	Service 2.0	
F	2.00	2.00	Suburban Life 4.00	
Field and Stream	2.50	2.00	Sports Afield 2.50	
Field and Fancy	2.25	1.75	Scientific American 4.7 Scribner's 4.0	
G			Berroner S 4.0	0.00
Garden Magazine	2.00	1.70	Trained Nurse 3.00	2.25
Good Housekeeping	2.00	1.65	Trained Nurse	
Gunter's Magazine	2.50	2.10	Ten-Story Book 2.00	
H			Travel Magazine 2.0	
Harper's Magazine	5.00	4.20	V	
Harper's Weekly Harper's Bazaar	2.00	$4.20 \\ 1.65$	Vegetarian Magazine 2.0	
House Beautiful	2.50	2.25	The Voice 2.0	1.60
Health Culture	2.00	1.60	W	
Home Herald	3.00	2.40	Woman's Home Companion 2.0	
Health	$2.00 \\ 2.00$	1.65	Waverly Magazine 2.5	2,00
Home Magazine		1.65	World Today 2.5 World's Events 2.0	
Human Life	1.50	1.35		
Т			World Evangel 1.7 World's Work 4.0	
Inter-Ocean (Weekly)	2.00	1.45	What to Eat 2.0	0 1.50
K	2014	0120	Will Carleton's Magazine 1.5	0 1.25
Keith's Magazine on Home Build	-		Y	
ing	2.50	2.20	Yachting 4.0	
Kindergarten Review	2.00	1.50	Youth's Companion 2.7	5 2.75
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== SUPPLIES ===

The Allen Fountain Brush

This unique device is intended to supply the ad-vantages of the shower bath or spray in homes where these privileges cannot ordinarily be enjoyed. There are two styles of

equipment,- the portable and the bathroom outfit. The former is designed primarily for homes in



which there are no water connections, although even where these may be obtained, it is sometimes preferred, owing to its adaptability for use in any room in the house and under any conditions. Travelers find this outfit a very convenient thing



to carry, as it insures a re-freshing and invigorating bath, no matter what disadvantages may be encountered.

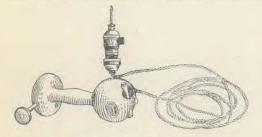
This portable outfit consists of an aluminumed galvanized iron tank, capacity I gallon, with extra heavy tubing connecting with brush, the flow of

a patent regulator and shut-off. A floor mat of heavy, water-proofed material completes the out-Enema and douche points are also furnished, fit. so that the tank may be used for these purposes as well, thus giving double service.

Prices, Portable Outfit: With Superb Brush, \$6.00; with Gem Brush, \$3.75. Bathroom Outfit: With Superb Brush, \$3.50; with Gem Brush, \$2.25.

The Centrifugal Vibrator

The Centrifugal Vibrator is the latest and most effective mechanism for producing vibration



that has been devised. This apparatus is the result of many years of experiment. The price is exceedingly reasonable, much less

than that of any other efficient vibrator on the market, while the Centrifugal Vibrator has the advantage of producing much more vigorous vibratory effect than does any other, and two dis-tinct forms of vibratory movement, whereby its efficiency is double that of any other. The most perfect adaptation to individual cases is thus possible.

Price, complete, for either alternating or direct current\$30.00

The Good Health Bath Cabinet

The best cabinet for the money that can be bought anywhere in the United States. Should be in every family where in the onited states. Should be in every family where common sense is more relied upon than drugs. The best thing in the world for breaking up a cold, breaking up chills, relieving soreness of the muscles, rheumatism, in-activity of the skin, diabetes, and liver or kidney disorders.



The framework is the best heavy steel rod, gaivanized to prevent rusting, insuring durability, strength, and lightness. It consists of four sec-tions solidly connected by metal hinges; light galvanized steel uprights support it from top to bottom, making the cabinet strong, rigid, and firmly supported. The interior of the cabinet is rubber lined, making it sanitary and air-tight. May be quickly cleaned or sponged off should it become soiled. The covering material is durable, rubber-lined drill. The outside is cloth finish. There are top curtains capable of being instantly fastened together with patent fasteners. Can also be separated without difficulty. The attachments are a new alcohol stove with iron stand and a vapor cup. The cabinet weighs about twelve pounds. Price, including attachments, \$4.00.

GOOD HEALTH PUBLISHING CO., Battle Creek, Mich.

Letters to a Health-Seeker from a Battle Creek Patient

I.

August 5, 1907.

What a great place this is !--great beyond description. I have hardly recovered from my first astonishment. As the carriage drove up through the broad lawns and the Sanitarium loomed up before me, it nearly took my breath away. It is so large, so ample, so generous in space and surroundings. And happily there is no multi-fangled sumptuousness here which is of no use to anybody. Everything here is for a purpose. The place is magnificent because of its mag-

nitude and magnanimity. Not alone in big spaces and in vistas, but in details, too, there are so many things to gaze at and admire that I have been busy taking it all in since the moment I came here.

I haven't finished exploring by any means, but for the moment I'll forget the things I have seen and tell you what I have done.

You may rest assured that I shall not forget my promise to tell you everything about the place, and you can rely upon me to be entirely impartial. If anything, I shall be severely critical. True enough, I have confidence in the institution, or I would not have come here, but I am not at all convinced as yet that everything is ideal. I firmly believe it will do you a world of good to come here anyway, but I shall give you a true picture of things so that you can reach your own conclusion.



Receiving Physician in the Medical Office

So here is the story of my first day and my "freshman" experiences with the Battle Creek System.

I reached Battle Creek just before dinner, as the train from Detroit was late, but there was time enough to go through all the preliminaries. I was met by a cordial welcome that stretched all the way from the genial smile of the Sanitarium porter who took me in hand at the station, to a hearty reception from Dr. Kellogg himself. I had the rare good fortune at the start to meet the head of the Sanitarium, and get the bracing inspiration of his electric energy and quick but kindly words.

Dr. Kellogg handed me over to the receiving physician in the medical office. Here I submitted to the preliminary catechizing which every patient is put

through. The suave doctor sat at his desk and asked questions—name, where from, age, single or married or widower, and other such queries—and then placed his finger on my pulse and a thermometer under my tongue. There were no startling results, except that the doctor claimed I am a "cold-blooded" creature,—meaning that my temperature was subnormal.

I was then assigned to an attending physician. There is a staff of nearly thirty physicians here, and some of them are specialists who receive only cases of a certain kind, such as nervous disorders, etc. The doctor to whom I was now delivered put me through the most thorough personal inspection I have ever undergone. First came another procession of queries; and a large sheet was soon filled with information that I didn't know was in me—about family history, my own previous life, habits (any excesses?), diet (as to meat, condiments, hasty eating, etc.), present condition, and ending up with a catalogue of symptoms. Never before had I realized how important and interesting I was, or how



The Swedish Movement Room

much inside information I contained.

But the doctor meant to find out some things for himself, and proceeded to give me a sweeping physical examination. He sized me up completely, from the facts of height and weight to the condition of the organs and functions of the body-a whole inventory of my physiology. After his fingers had pattered over my trunk for a minute or two, he declared to my relief that everything-heart, stomach, liver, and the rest-was the right size and in the right place.

But with all due respect for the doctor, I am sure that my heart had just been in my mouth.

Was I through? Far from it. To run the whole gauntlet I had still to take examinations of the blood, blood-pressure, and excretions, and a special strength test—but these were postponed to the next day. On the appointment card given me for these tests, I found that there were still other ordeals which for the present, at least, were not fated for me—the test meal (more about that later), X-ray, and special eye and ear, nose, and throat examinations.

Finally my physician filled out a "Daily Program" card which told me exactly what to do for nearly every minute of the waking hours. I was to start right in taking bath treatment, massage, gymnastics, etc. With a prescription for my first bath and the parting injunction to call again each day, I left the office a duly credentialed patient. My initiation was over.

Have you ever heard of a place—especially a sanitarium—where any such thorough inquisition is measured out to every newcomer? I have been told that many refused to believe that any such procedure was the rule here until the

skeptics came and saw and were conquered (I mean convinced). But that is true of nearly every detail of the Battle Creek System—it is incredibly thorough, incredibly scientific, incredibly sane. Not only do they refuse to drug the patient and pester him with poisons; but even the "natural" treatment, wholesome as it is, is not prescribed until the doctor is well acquainted with the patient and his case. And meanwhile, for the better part of a week, a whole force of doctors, attendants, and laboratory experts are kept busy examining you, testing your stomach fluids and excreta with the utmost nicety of research, checking up your data, and charting your divergence from the normal, until they know more about your physiological status than you yourself could have found out in a lifetime.

Imagine what it means to your peace of mind and confidence in your treatment when you know that everything done to you is done with due regard for every fact that has any bearing on your case. Often, too, this thorough inquiry reveals sources of trouble that the patient had never dreamt of. The whole thing is a revelation. I have heard half a dozen people tell me today that this searching examination marked a turning-point in their lives—in their ideas about themselves and what they believed was good for them.

With all these complicated tests, there is no halting at the start. My examination was only half over when I found myself in the very "swim" of things. No time is lost in getting right into line. You join the swift procession of health-seekers, and at your right hand are physicians and attendants to give you aid, encouragement, and counsel.

My initiation had taken an hour or more, but there was still time for dinner. I was delighted to find the dining-room on the top floor—the sixth—flooded with fresh air and light, and affording a panoramic view of the hills and woods and hamlets for miles around. Surely this in itself ought to arouse an invalid appetite. An orchestra, too, gave further aid to the digestion. Like the usual newcomer, I had been assigned to one of the diet tables in the corner, where the "three days' ration," as they call it, is given under the oversight of a physician. I confess that I wondered for a moment whether some indefinable hardship wasn't coming. Instead of that, I was treated to one of the most epicurean—really epicurean—meals I have ever feasted on.

It turned out that the "three days' ration"—terrible as it sounded—is merely a regulation of the diet for the sake of the preliminary digestive tests. There is only one feature about it which in any way could be likened to a hardship,—and that is, that you are deprived of salt and sugar, fibrous vegetables, and a few other unimportant articles which would interfere with the digestive tests to be made in the laboratory. At the start, not knowing the cause for this "bittersweet" denial of salt and sugar, I had a peppery feeling; but the moment the explanation was made, I became as docile as a lambkin, and my breast heaved with the thought that I was a glorious martyr to the cause of scientific investigation.

There is only one other regulation for these three days' feeding,—namely, that you must eat a certain amount each day, the amount needed by the average man of your height. This amount must be divided properly among the three food elements,—proteids, fats, and carbohydrates,—thus making a "balanced diet." You must see to it especially that the proteids are low. But the exact foods are not prescribed. One of the doctors suggests a balanced ration for you at each

meal, with regard for your individual needs, but you can substitute equivalents as you like. It is this that causes all the trouble. From the looks on some of these

patients' faces as they puzzle out their menus, you would guess that they could more easily balance themselves on a needle, like the angels of the middle ages, than "balance" their ration for a meal.

It was comical—almost painful—to watch the dire distress of one lady opposite me, who found on calculation that she had exceeded her allotment of proteid by five calories—a



The Dining Room

thimbleful. "Doctor," she said, with a glum face, "I really don't know how it happened." And meanwhile the lady at her left was parsing the bill of fare to find something that would supply two missing calories of fat.

There is even more fun in discovering that what will satiate one individual will leave another with a clamoring hunger. The gentleman on my right and the lady on my left, being about equal in age and height, ordered the same ration. The gentleman declared he was "full" before he reached the end; "my lady" disposed of everything in sight and then declared (good-naturedly) that it was "a starvation diet."

But I will let you judge for yourself. Here is what I ate, and it was less than the ration of my neighbor: Cream of celery, walnut roast (a delicious substitute for beef—not "just as good," but better), potatoes and cream sauce, fresh peas, toast, apple juice, baked Indian pudding, and a giant peach as a finale. I call this epicurean. I was so contented that I wanted very little for supper.

The rest of today's story must hang fire till I bombard you again. I am late already for to-night's lecture.

RING OUT THE OLD

GOOD HEALTH will ring out the old year by a fine December number. Judge from our long array of features whether it is not a fine number, and worthy of the last month of the most successful year in our history.

Dr. Kellogg writes on a number of timely subjects, among them "New Facts about Typhoid," "Lurking Diphtheria Germs," "How to Determine Excess of Proteid," "Catarrhal Gastritis," "Is Cancer Contagious?" and "The Yellow Peril."

George Wharton James' "Simple Life Biography" will have for its subject Edwin Markham. An original photograph of the poet, hitherto unpublished, will be included, along with a fine engraving of the painting that inspired his wonderful poem, Millet's "Man with the Hoe."

"Scientific Cleanliness in the Kitchen" is the subject of a valuable article by Charles James Fox, Ph. D. The article is well illustrated by photographs of model kitchens.

Carolyn Geisel, M. D., spent last summer among the Chautauquas, lecturing on health and hygiene. She will give in the December GOOD HEALTH her impression of the Chautauqua as a field for the development of the principles of right living for which GOOD HEALTH stands.

Dr. Kate Lindsay will continue her studies in practical sick-room work, while Charles Michael Williams will write on an interesting phase of vegetarianism.

Not one will have failed to be interested in Dr. David Paulson's article, "Thirst Producing Foods," in this present issue of GOOD HEALTH. He will appear in the December number with another paper equally as interesting.

"Jocko and I" is a story of a rollicking pair of chums,—"Jocko is an anthropoid ape, and I am a man." Both, however, are health reformers, and enjoy life as only health reformers can enjoy it. The tale, written by Mr. T. H. Holt, holds your attention from beginning to end.

Mabel Howe-Otis, M. D., has a seasonable article on "Winter Night-Wear," which no one should fail to read.

Physical Culture will be represented in this number by an illustrated article by Dr. Benton Colver on skating.

"The Headache Tribe," W. J. McCormick, M. D., will tell what has gone wrong when you have a headache, and what to do for it.

Every nature lover will be interested in an illustrated study by Julia E. Rogers on "How Insects Pass the Winter." The author writes as only one who loves the subject can, and presents an article that will not fail to give you some valuable hints on insect life in winter.

The third instalment of Carrie L. Grout's "Health and the School" series will appear as "Heredity and Environment." The writer tells of what she has seen, and has a message for parents and teachers.

Mr. Albert Chamberlain, general secretary of the Overland Walking Club, will tell of the 1907 walking tour of a brigade of Club members, among the Alleghanies.

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The How and Why of Motoring

UNQUESTIONABLY automobiling is the one supreme pastime of present-day America. Nothing ever evolved in the way of sport or recreation is more in keeping with the genius of American life—the zeal to go forward—to get things done—to eliminate=the element of time. The motor car is the symbol of the present age whether its purpose be that of pleasure or utility. It is the new thing in motion, just as THE RED BOOK MAGAZINE was the new thing in magazines at the time of its establishment.

Now has come the motor car, operated for pleasure or for profit, in the broader sense. THE RED BOOK MAGAZINE arrived at the conclusion a year ago that it must, sooner or later in its pages, reflect something_of this new and vitally American pastime of motoring. It at once secured the best motoring stories the fiction-market afforded. But the fiction writers have not been able to keep abreast of the motor's popularity, so THE RED BOOK MAGAZINE decided that in duty to its readers whose entertainment is its purpose — it must devote a certain number of its pages to the subject of motoring quite apart from the spark-and-throttle-fiction it may print.

Accordingly, in the September issue there was inaugurated a distinct department devoted to automobiling, under the title "The How and Why of Motoring."

Response on the part of RED BOOK readers who are, or hope some day to become motorists, was immediate and emphatic. Indeed so decisively did the letters received express the approval of the writers that it was decided to maintain the feature indefinitely.

In every issue of THE RED BOOK MAGAZINE, therefore, will be found an illustrated department devoted exclusively to such matter as is best designed to interest the amateur motorist, the intending motorist, and indeed, all who seek to learn that which will be of greatest value to them concerning the every-day use of motor-cars. Everything pertaining to motor developement everything the interested person wants to know--is covered in this complete department. The motor situation the world over, the practice of motoring, advice, suggestions, news in a word the motor world is focused in THE RED BOOK MAGAZINE'S unique department. And what is best of all, the entire department is written in such a way that it can not miss being understood by the laity the motorists of to-morrow as well as those who drive their cars to-day. The technical argot of motoring is studiously avoided.

From the really large number of experts qualified to conduct the department, the man who by knowledge, magazineexperience. and ability, seemed the one man to edit the department was selected. He is Mr. E. Ralph Estep. Mr. Estep, since 1897, has had but one interest in active life the popularization of motoring. There is not a phase of the subject upon which he is not qualified to write. What he may have to say to the great family of RED BOOK readers may be taken as the word of definite and established authority on the fascinating subject. THE RED BOOK MAGAZINE, therefore, commends to its readers its new department as conducted by Mr. Estep. If you are now a motorist you will be interested at once. If you so much as dream of becoming a motorist, you can not afford to miss what Mr. Estep will have to say each month.

November

Against the leaden, bleak November sky, The branches bare convey a sense of cold, Though in the month that now has passed us by They were arrayed in gowns of cloth of gold. Today a shroud they wear of withered leaves, Which have withstood Boreas' bitter breath. Chill will they be when he at last bereaves Them of the few that closely cling in death. The rain drops down in slanting pour all day, The river, chill and dark, doth scarcely flow, The heavy clouds enwrap the sky in gray, And ne'er permit the cheerful sun to show. Ah, Winter, with your joyous Christmas bell, I prithee come and ring November's knell.

- Ethel Oviatt Lewis, in the Metropolitan



ILLUMINATION BY PATENT MEDICINES

The apparatus used in this experiment required at least 3 per cent alcohol to generate sufficient alcohol gas to illuminate the mantles. Beer was used as a control, and generated enough alcohol gas to cause the mantles to flash up, while the patent medicines gave a full illuminating hlaze of from one to four minutes' duration, representing practically to per cent of alcohol to each minute of illumination.



THE purpose of this article is to present a few simple rules, the careful following of which will promote to the highest degree physical and mental efficiency, mental and moral equipoise and equanimity, and will prolong to the greatest

The Simple Life in a Nutshell

limit possible life and useful activity.

As space is too limited to permit of the presentation of arguments or reasons, these rules are expected to be of chief service to those who are already persuaded of the correctness of the general propositions of the simple life, or return-to-nature movement.

It is proper, however, to say, for the encouragement of those to whom the ideas presented are altogether new, that of the various suggestions made, not one is presented which has not been thoroughly tried and tested in the experience of hundreds, even thousands, of persons, neither is a single suggestion offered which does not rest upon a sound basis of scientific fact.

The simple life, or so-called return to nature, is not an innovation. It is a return to the "old paths" from which the perversions of our modern civilization have gradually diverted millions of men and women, perversions that are responsible for the multitudinous maladies and degeneracies which yearly multiply in number and gravity.

General Rules.

1. Give attention daily to cultivating health. It will pay. Study the conditions and the surroundings of the home and the business, and give careful thought to personal habits and practices with special reference to their bearing on health.

2. Recognizing that health of mind and body is one of the most valuable of all personal assets, determine to make every reasonable effort to maintain intact, and if possible to increase, the capital of physical and mental health.

3. Give to the body and its functions that care and study which you would accord to any other valuable and costly mechanism, so as to become familiar with its needs and the best means of supplying them.

Eating for Health and Efficiency.

4. Eat only natural foods; that is, those which are naturally adapted to the human constitution. The natural dietary includes fruits, nuts, cooked grains,

GOOD HEALTH

legumes, and vegetables. Natural food imparts to the body the greatest amount of energy, and maintains normal conditions of life.

5. Avoid meats of all sorts (flesh, fowl, fish, including "sea food"). These are unnatural foods. They are all likely to contain deadly parasites of various kinds, and always contain noxious germs, meat bacteria or "anaerobes," which infect the intestines, inoculate the body with disease, and cause putrefaction and other poison-forming and various morbid processes. These germs are not destroyed by ordinary cooking, such as stewing, broiling, frying, roasting, etc.

6. Take care to *avoid an excess of protein*, that is, the albuminous element represented in lean meat, the white of egg, and the curd of milk. An excess of protein promotes putrefaction, and thus intestinal autointoxication, the chief cause of "biliousness," colitis, appendicitis, gall-stones, arteriosclerosis, possibly cancer, Bright's disease, and premature old age. Ordinary bread contains a sufficient amount of protein, as do also rice and other cereals and the potato. Most nuts, also dried peas and beans, contain an excess of protein, and should be eaten sparingly.

Most cases of acute illness, excepting contagious disorders, are due to some form of autointoxication. The best remedy is fasting or a meager diet of fruits and cereals for a day or two.

7. Eggs should be eaten in great moderation, if at all. They encourage autointoxication, and thus often cause "biliousness." The yolk of the egg is more wholesome than the white.

8. Cow's milk is not altogether suited for human food. A large proportion of invalids—nearly half, perhaps—suffer from "casein dyspepsia," and cannot take milk without suffering from constipation, headache, "biliousness," coated tongue, or other unpleasant symptoms which indicate intestinal autointoxication. Such persons may sometimes make use of fresh buttermilk, sour milk, cottage cheese, kumyss, and yoghourt, with less difficulty, and even with benefit. Excellent substitutes for milk may be prepared from nuts.

9. Animal fats, such as lard, suet, and ordinary butter, should be avoided. They are difficult of digestion, and promote intestinal autointoxication, and thus cause "biliousness." Vegetable fats are more easily digestible, and do not encourage intestinal autointoxication. Ordinary butter is unfit for food. To be wholesome, butter must be made from sterilized, or boiled, cream.

Persons who are not subject to case ndyspepsia are often able to digest sterilized cream more easily than butter. Persons who suffer from hyperpepsia— "sour stomach"—may take sterilized butter and cream more freely than those who suffer from slow digestion. When butter or cream produces pimples on the face, a coated tongue, or a bad taste in the mouth, it must be diminished in quantity, or omitted altogether. Nuts are an excellent substitute for butter and cream when a substitute is necessary.

10. Avoid poison foods. Tea, coffee, chocolate, and cocoa are poisons. The special poisons which they contain, impair digestion, damage the nerves, and promote disease of the liver, kidneys, and blood-vessels. Cereal beverages and hot fruit juices are wholesome substitutes for tea and coffee.

11. Condiments-mustard, pepper, pepper sauce, cayenne, capsicum, vinegar, hot irritating sauces, and spices of all kinds-must be wholly discarded. They

irritate the stomach, thus giving rise to gastric and intestinal catarrh, and damage the liver and kidneys.

12. Common salt, or chlorid of sodium, should be used sparingly, if at all. According to Richet and others, the food naturally contains all the chlorid of sodium actually required by the body, so that the addition of salt to the food is necessary only to please a cultivated taste. A safe rule is, The less the better.

13. Food combinations should be such as to give the proper proportion of the several elements,—proteids, carbohydrates, and fats. Fruits and vegetables, as well as other combinations of natural foodstuffs, agree perfectly when mastication is sufficiently thorough to reduce the food to a liquid state in the mouth and when indigestible residues are rejected.

14. The quantity of food should be adapted to the size of the person and the amount of work which he does. Never eat to satiety. Eat only when hungry, never because it is meal-time, or because invited to eat. A person of average height and moderately active requires 200 calories of proteid, 450 calories of fat, and 1,350 calories of carbohydrates, or a total of 2,000 calories, or food units, daily. The total number of calories required is furnished respectively by about 28 ounces of bread, or 96 ounces of milk, or 62 ounces of potatoes, or 9 ounces of butter. One-fourth of each of these, or any other fractions which together equal unity, will aggregate 2,000 food units, or a day's ration. Be careful to eat enough.

15. Food must be well relished to be well digested. According to Pawlow, "appetite juice," which is produced by stimulation of the nerves of taste by palatable food, is the most important factor in gastric digestion.

16. Cane-sugar must be taken only in small quantity. Large quantities give rise to gastric catarrh and indigestion. Sweet fruits, such as raisins and figs, honey, meltose or malt sugar, are natural and wholesome sweets.

17. A sedentary life tends to produce intestinal inactivity, that is, slow digestion and constipation; hence, the ordinary daily bill of fare should supply an adequate amount of laxative foodstuffs, such as sweets (not cane-sugar or syrups), sweet fruits, especially figs and prunes, acid fruits and fruit juices, fats, fresh vegetables, and whole grain preparations.

18. Some *fresh*, *raw food should be eaten daily* in the form of fresh fruits or fruit juices, nuts, or salads. Raw cereals are indigestible. The cellulose of fruits and of young buds, leaves, and shoots is digestible in the intestine.

Fresh vegetables and whole grain cereals are needed to supply alkaline and earthy salts. The blood and all living cells require these salts, as well as the teeth and the bones. The free use of cane-sugar and meats leads to lime starvation, being greatly deficient in salts.

19. Avoid complicated dishes and great variety at one meal, but vary the diet from day to day, as the appetite may indicate.

20. Eat at regular hours, so as to maintain the normal intestinal rhythm which secures the daily movement of the bowels. Rather than omit a meal entirely, eat some fruit, or drink a glass of fruit juice, buttermilk, or some other simple nutrient which will keep up the peristaltic procession and rhythm. Never take food into the stomach when remains of a previous meal are present.

21. The best meal plan is to eat twice a day. Eight to nine a. m., and three

to four p. m. are the best hours; or eleven a. m. and six p. m., if the retiring hour is necessarily very late.

22. If three meals are eaten, the heartiest meal should be taken at midday. The breakfast should be substantial, the evening meal very light, especially avoiding pastry, fats, rich sauces, and hearty foods. The evening meal should consist chiefly of ripe or cooked fruits, liquid foods, and such cereals as boiled rice or cereal flakes.

23. Avoid iced foods and drinks. Very cold foods or drinks, if taken at all, should be swallowed slowly and in very small quantities.

24. Chew every morsel until reduced to liquid in the mouth, rejecting and returning to the plate skins, seeds, and other tasteless woody residues. Thorough chewing develops "appetite juice" in the stomach and combats intestinal autointoxication, the most prolific cause of disease. Give preference to dry foods. Sip liquids slowly, taking care to insalivate thoroughly.

25. Take three pints of water a day, including liquid food.

Do not drink much at nor immediately after meals. Take a few sips whenever thirsty,

Drink a glassful of water on rising in the morning, on retiring at night, an hour before each meal, and two or three hours after eating.

If digestion and bowel action are sluggish, sip half a glassful of cold water half an hour before meals.

Exercise for Health.

26. Live as much as possible in the open air. If compelled to work indoors, be sure that the living and work rooms have an ample, continual supply of fresh air. The lower the temperature the better, so long as the body is kept comfortably warm. Temperatures above 70° are depressing. The breathing of cold air is a continuous tonic; every breath is a tonic bath, a vital lift. A thousand breaths an hour count greatly toward health or disease, according as the air breathed is pure and cool, or impure and hot.

27. Working in the open air is one of the best forms of exercise, especially working in the garden, digging, hoeing, pruning, etc. Do some good, hard muscular work every day, enough to produce slight muscular fatigue; but avoid exhaustion.

Swimming in water at 76° to 80° is the best of all special health exercises. Rapid walking and hill-climbing are excellent.

28. One need not live a sedentary life because his occupation is sedentary. Always sit erect, with the chest held high and small of back supported. Sit little as possible. Standing and lying are more natural and healthful positions than sitting. One may exercise while sitting at work by stiffening the muscles of first one limb a few seconds, then the other. All the muscles in the body may be exercised in the same way.

29. Deep breathing aids digestion, encourages liver and bowel action, develops the lungs, and purifies the blood. The only directions needed are: Hold the chest high and breathe as deep as you can ten or twenty times every hour, or oftener. The best "breath" gymnastics are swimming, hill-climbing, and rapid walking or running. Always breathe through the nose. 30. In walking, *always hold the chest high* and carry it well to the front. Swing the arms moderately and *walk fast enough to hasten the breathing a little*. *Nine miles a day at three miles an hour is the proper distance* for the average adult. Most busy housekeepers and farmers do more than this.

31. If the abdominal muscles are weak, develop them by simple exercises, such as walking on tiptoe with chest held high, and running round the room on all fours; lie on the back, hold the legs straight and raise them to the perpendicular, repeating thirty or forty times three times a day.

Lying on the back, raising the body from the lying to the sitting position with the hands placed upon the back of the neck. Repeat ten to twenty times three times a day, gradually increasing the number.

32. If the abdominal muscles are weakened, so that the lower abdomen bulges forward, a tight flannel bandage, or more substantial support, should be worn about the lower abdomen when on the feet, until the muscles have been strengthened by exercise.

The Toilet.

33. Cleanse the mouth and teeth thoroughly before and after each meal and on rising and retiring. A foul tongue and decaying teeth indicate mouth infection.

34. Take a warm cleansing bath before retiring twice a week in winter. Apply olive oil or fine vaseline after the bath.

35. Take a short cold bath every morning on rising. This is an excellent tonic. Or take a cool air bath, rubbing the skin with a dry towel.

A very short hot bath (half a minute at 110°) may, if necessary, be substituted for the cold bath.

36. The hands, nose, and the scalp also require sanitary attention For the hands, use a good strong soap and rinse well with soft water.

37. The bowels should move thoroughly at least once a day, most naturally soon after breakfast. Putrid, foul-smelling stools are an indication of intestinal autointoxication, and are due to an excess of proteid in the form of meat, eggs, or possibly milk. Such a condition always breeds disease.

Sleep and Rest.

38. Sleep eight hours every night. If not strong, or if neurasthenic, take a nap before dinner.

39. Surroundings at night should be quiet. Sleep amid noise is not refreshing.

Lie on the right side, or slightly turned toward the face.

The bed should be neither too hard nor too soft. Avoid feathers. The covers should be dry, warm, and porous. *Avoid overheating by excess of clothing*. Use a small pillow or none at all.

Always breathe outdoor air when asleep by means of wide open windows, the window tent, the air tube, or a sleeping balcony. Do not sleep within two hours after eating.

40. Make the weekly Sabbath a day of complete rest from work. Take a half-day off in the middle of the week if possible. Recreate in the open air an hour or two daily.

Clothing.

41. The clothing should be loose, comfortable, light, and porous. Restrictive clothing is necessarily damaging, for the trunk of the body is continually changing in form and size. Wear porous, cotton or linen underclothing next the skin.

Avoid waterproofs except for temporary protection. Clothe the extremities so as to keep them warm under all conditions.

Mental Hygiene.

42. Do not worry. Horace Fletcher has shown us the pernicious influence of "fear-thought." The Power that made us can and does take care of us. There is no need to worry. The intelligence that controls and energizes heart and lungs can rule our destinies and with our co-operation will lead our lives in ways where "all things work together for good" to us. Worry kills. Hope inspires, uplifts. Cheer up.

43. Do not become self-centered. Avoid thinking or talking about ailments or other unpleasant things. Let your ideals be altruistic.

44. Exercise self-control and restraint in all things. Work uses energy moderately, the passions and the emotions enormously.

45. Study the dreams and take a vacation when you dream about your work.

Suggestions.

46. For constipation, knead the bowels well with the hands night and morning. Eat laxative foods, especially fruits and nuts, and whole-grain "cereals." Avoid oatmeal mush.

47. For a cold, take a hot bath on retiring; drink abundantly; eat little but fruit for a day or two; and stay out of doors. Live in the fresh air and avoid colds.

48. If sleepless or nervous, take a warm bath at 102° F. for one or two minutes, then cool to 93° to 95°; continue half an hour to two hours if necessary.

49. For "biliousness," clear the stomach and bowels, fast or eat fruit exclusively for a day or two, and adopt a strict antitoxic diet, avoiding meat, eggs, animal fats, and perhaps milk.

50. The best foods in the order of excellence, antitoxic foods in italic: Fresh, ripe fruits, cooked fresh fruits, cooked dried fruits, nuts, cooked cereals—rice, zwieback, toasted corn flakes,—potato, cauliflower and other fresh vegetables (if fiber is rejected), honey, meltose, malted nuts, yogurt, buttermilk, sterilized milk and cream, peas, beans, lentils, raised bread, sterilized butter.

J. Kellogg

Promoting Health Ideas in Ireland

BY ROBERT BROWN

Honorable Secretary of the Ulster Branch National Association for the Prevention of Consumption.



[MR. ROBERT BROWN, Hon. Secretary, Ulster Branch, National Association for the Prevention of Consumption, of Donaghmore, Ireland, in an effort to promote health ideas in his community, has published the following circular, which we reproduce as an excellent illustration of a practical method of propagating reformatory ideas in diet among those who have given little or no thought to the subject.—EDITOR GOOD HEALTH.]

\$100 Rewards in Cash

THOUSANDS IN HEALTH AND HAPPINESS.

As Mrs. Brown and I have derived so much benefit to our health by following out what we have found to be the best principles of living, we wish to convince our workers and neighbors that they could benefit equally.

FRESH AIR: Mrs. Brown used to be a constant sufferer from "colds." In those days I used to stop up with cotton wool the keyhole of the glass door leading out into the garden from our sitting room. Now we keep the door itself wide open (or else the window), and she has had no cold for five years.

The following objections have been made to us when we urged this course of life on others:---

Courtesy National Home Journal. "All Aboard"

(1) "You can afford plenty of warm clothes, we can not."

I wear now in December as you can see, a light summer suit, no overcoat, no hat, and I have no flannels on, exactly the same clothes as in July. Mrs. Brown used to buy new flannels every winter, and wore these with a thick woolen vest, and was never warm. Now she wears nothing but linen or cotton underclothing and is never cold.

(2) It is said "you can have better food than we can."

My food is so simple and cheap that the poorest can afford it. I eat neither fish, flesh, nor fowl, milk nor eggs, tea, coffee, nor cocoa. Mrs. Brown's diet is practically the same except that she takes a little milk and eggs occasionally. Milk and eggs are wholesome food for those whom they suit, especially children. For myself, I find I get on as well without them.

Almost all the bread used by my family is brown bread, cut in slices, and put in the oven overnight. (It could be dried in a pot equally well.)

It is necessary to chew one's food about six times as long as most people

GOOD HEALTH

do, if it is to be thoroughly digested, and this hard, dry bread will not go down, unless thoroughly masticated. The spittle acts on the starch in bread, porridge, potatoes and such foods, and turns it into sugar. Note how sweet a crust becomes when thoroughly chewed. At breakfast I eat this hard bread broken up, and sprinkled over my porridge (I use no milk or sugar with it). The hard bread insures that the soft porridge is thoroughly chewed. I rarely drink until the meal is over. The reason our teeth, honey or sugar in it. Dinner—potatoes and butter with some vegetables (steamed), some pudding with stewed fruit, some raisins, or figs or nuts. Supper at 7 o'clock—(I don't call it tea) hard bread and butter, salad, in winter made by dressing sliced cold potatoes, cold boiled carrots, turnips, or sugar beets with olive oil and vinegar—Jam Tea. I eat much less than I used to do, but it is well digested, and I am three pounds heavier than I was a year ago. Mrs. Brown is also nearly a stone



Courtesy National Home Journal Irish Peasant Woman Going to Market

nowadays, are so bad is (first) because the bran is all taken out of the flour, and in the bran are the bone-forming materials, (second) the food is so soft or is washed down with tea, and the teeth get nothing to do. Any part of the body not exercised loses its power.

When our people did not use tea, and lived on oat-cake and wheaten scones, made without soda, they had splendid teeth.

To return to my diet, this hard bread, porridge and some fruit, stewed or raw, is my breakfast. After it I drink a cup of hot water, with a little jam, heavier than when we began the openair life. I used to suffer constantly from headaches; I never have them now.

(3) It is said, "You can keep large fires." We could, but we don't, much less than formerly, and never in a bedroom. We have only one blanket and a sheet on our bed, with an old thin blanket over that, if necessary. I am sure

very few of our neighbors have so little. It is largely a matter of habit what clothes one wears, and breathing perfectly fresh air so improves the circulation that much less clothing is needed.

Our bedroom window is always as wide open as is possible, and it is a very large one.

The argument for the disuse of flesh food is this:-

(1) All animal life is sustained by the vegetable kingdom. It may be directly, as when grains, vegetables, fruits, nuts, etc., are used for food, or indirectly, when these are first fed to

animals, and then the flesh of these is used for food. The latter is a roundabout and wasteful process, and ten men could be fed on the produce of the land direct that would be necessary to graze cattle to supply one with flesh.

(2) Animals' bodies are constantly being broken down and rebuilt, the waste being excreted. There is therefore in all flesh a great deal of these used-up products on their way out of

the animal, and those who use flesh foods have to get rid of not only their own body waste, but that of the animals they feed on, so throwing more work on their liver and kidneys.

It is not surprising therefore to find that in all recent tests of vegetarians against flesheaters the former exhibited far greater powers of endurance.

(3) Animals are very liable to diseases, many of which may be communicated to man. There is no disease of the vegetable kingdom that can affect us.

This simple diet leads to good health and longevity. It is said that the Trappist Monks who adopt it, live to great ages, never dying of can-

cer or paralysis. Their intellects are keen and bright to the last hours of their life.

My Offer.

Ist. THE OPEN-AIR LIFE. To any family represented among our workers, or who live in the village of Donaghmore, I offer IOS, to be paid on July Ist next, provided all the bedroom windows of that house are kept wide open (except when rain is beating in, when it may be opened two or three inches) on any night till that date, and the kitchen window is kept down three inches. If your windows won't open, I will get them made to do so.

It is well known to all if they were delicate consumptives, this open-air existence would be their only chance of life. Yet most of the robust people one meets dread "colds" from fresh air.



Where the Spinning Wheel is Still Used

2nd. ABSTINENCE FROM THINGS THAT I BELIEVE INJURE.—In addition to above I offer 10s. to the same families, if every one in the house will agree to abstain from alcohol, tobacco, tea, coffee and cocoa, flesh, fish, and fowl.

I think you will all admit that Mrs. Brown and I look better since we gave

GOOD HEALTH

them up; this offer proves that we feel we are. We do not find it any deprivation to do without these things. The food we take is far more enjoyed than what we used to have.

You will notice that the vegetables we use are steamed, not boiled; that is to say, instead of putting them in a pot of water and boiling them, and throwing away all that can be washed out of them, they are placed in a vessel Now we believe that the health and happiness of our neighbors would be greatly increased if they would do as we do. To back up our opinion, we make the foregoing offer, which if accepted by all, will cost us considerably more than ± 100 —not a bad test of the sincerity of our convictions.

Even if you do not admit these things I have named to be injurious, they are expensive, and the sum saved by doing



Peasants Breaking Stone

with a lid (any tin can will do), and this is set in a pot of water and boiled. It takes about twice as long to cook, but, of course, needs no watching. The juice which comes out, should be thickened with a little flour and butter, and made into sauce. Vegetables cooked in this way have far more flavor and are much more nourishing and digestible. In the ordinary way of cooking a great deal of the good which is in them is washed out and thrown away. without them, will purchase apples, oranges, raisins, figs, dates, currants, and other wholesome luxuries. I will provide the Christmas dinner for any family that goes in for the No. 2 prize. It will be exactly the same as I hope to have myself, and I will afterwards give particulars of its cost.

I annex a recipe for the Christmas pudding and apple dumpling that I hope to supply to a large number.

Those who wish to go in for these

prizes must give in their names to the office, saying whether they will go in for one only or both—not later than Monday—and at the end of June, sign a declaration that they have fulfilled all the conditions. I reserve the right to withhold the prize where I have reason to believe this statement is not true.

I would like to know in June whether there have been in these households more or fewer "colds" this coming winter and spring than there were in other years. Don't mind if people laugh at you. Good health is what God meant you to have, and it is well worth while taking some trouble to secure it.

There were nearly 13,000 people died last year, in Ireland, in their prime, from consumption who would have been well and strong if they had gone in for this open-air life and healthful food.

Donaghmore, Tyrone, 12th Dec., 1906.

The World's Staff of Life

BY MRS. F. E. KELLOGG.

BREAD in some form constitutes a staple article of diet in nearly all portions of the globe. It was one of the earliest foods of mankind. Mention of

made. After the oven had been well heated, a paste of meal and water was applied to the outside.

Bread of this kind was baked quickly

bread is made in the Scriptures as early as the time of Abraham. The ancient Egyptians knew the art of bread-making.

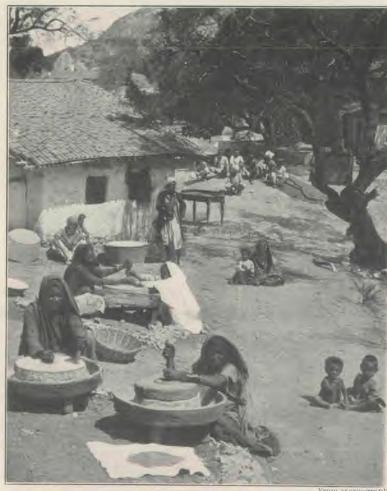
Probably the earliest form of bread was simply the whole grain moistened and exposed to heat. Later, the grains were roasted and ground, or pounded, be-

Syrian Women Grinding Flour

tween stones, while unleavened bread was made by mixing this crude flour with water and baking in the form of cakes. Among the many ingenious arrangements used for baking this bread was a sort of portable oven, similar in shape to a pitcher, within which a fire was

and removed in small, wafer-like sheets.

Most of the bread of olden times was baked in the form of flat cakes, which, being too brittle to be cut with a knife, was commonly broken into pieces, hence the expression so common in Scripture, "breaking bread."



Hindu Women at the Mill

Various substances have been and are still used for making this useful article. Until within the last few decades barley was the grain most generally made into bread. In regions where nuts abound, chestnuts ground into a flour are used.

The ancient Thracians made bread from flour prepared from the water coltran, a root; the Syrians, from flour made of dried mulberries. Rice, moss, palmtree piths, and starch-producing roots are utilized by different nationalities. In some parts of Sweden and northern Europe bread is made of one part barley meal and one part dried fish

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

The breadstuffs most generally used at the present time are the cereals,—barley, rye, oats, maize, buckwheat, rice, and wheat.

In Mexico the native bread is the tortilla, a flat cake made of corn which has been hulled by steeping in lime-water, then ground and reground on a *metate* until the product is a smooth, flexible dough. The cakes are shaped by dextrous tossing of the dough from hand to hand, then baked on a hot earthenware plate over a charcoal fire, in much the same way as pancakes are baked on griddles. The tortilla is toothsome,

meal, to which in winter flour from the bark of trees is added.

Desiccated tomatoes, potatoes, and other vegetables are frequently mixed with cereals for bread making. In India the lower classes make their bread chiefly from millet. The Icelanders make their bread from the reindeer moss, which toward autumn becomes soft, tender, and moist, and tastes like wheat bran. The flour is made by drying and finely pulverizing this moss.

THE STAFF OF LIFE



Making Tortillas

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

having the flavor of freshly parched corn.

In Persia bread made of wheat is baked on heated stones. The cakes are three feet in length, a foot wide, and about an inch in thickness. What is termed "pebble bread" is made into unleavened sheets of wafer-like thinness,

which are also of great size, These are kept in stock for a long time, and when needed for use are first dampened.

In northern Sweden the hard rye cakes which form the staff of life are baked but twice a year. Baking day for the housewives of Finland comes but once a season. The cakes each have a hole in the center, by which the whole baking is strung on cords or hung to poles to be used as needed.

One variety of *flat bröd* in Norway is flavored with caraway seed. An unleavened bread made of coarse wheaten flour is boiled instead of baked, then sliced and toasted to make it ready for eating.

The *black bread* which forms the staple diet of the peasantry of Germany is always sour, because overfermented. After the dough is kneaded in the home, the loaves are carried for baking to the one large oven of the village. The average baking consists of about forty loaves.

Beans and acorns are used as material for bread by the peasants of Provence. Acorns are also used for bread by the Digger and Pomo Indians.

The oat cakes for which Scotland is famous are made by mixing coarse oatmeal and salted water to a dough which, when well kneaded, is rolled very thin and baked on a heated sheet of iron. Scotch scones are made of wheat prepared in a similar manner.

In tropical America a cassava meal, obtained by grating the fleshy root of the manioc, is made into bread. The grated pulp is first washed and pressed, to force from it the poisonous juice. The dried pulp, pounded into a coarse meal, is made into large flat loaves, three feet in diameter and a fourth of an inch in thickness. Such bread, when baked, may be



"Two Shall Be Grinding" (Palestine)

GOOD HEALTH

kept in good condition for years.

Something of the digestibility of the various breadstuffs of the world may be judged from a test conducted some time ago at the university of Munich. This test showed that light wheat flour bread was the most readily digested. Second in order was a mixed rye and wheat bread raised with yeast, then a rye bread made light with leaven, and last the Pumpernickle of the Germans, a coarse wholewheat bread that was raised with yeast.



A Six-Months' Baking

So universal an article of food ought always to be of the very best quality. Good bread does not cloy the appetite, as do many other kinds of food, while the simplest bill of fare that includes light, wholesome bread, is far more satisfying than an elaborate meal without it. Were the tables of our land supplied with good, nutritious, well-baked bread, used with a plentiful supply of fresh fruits, there would be less desire for cake, pastry, and other indigestible articles.

E has achieved success who has lived well, laughed often and loved much; who has gained the respect of intelligent men and the love of little children; who has filled his niche and accomplished his task; who has left the world better than he found it, whether by an improved poppy, a perfect poem or a rescued soul; who has never lacked appreciation of earth's beauty or failed to express it; who has always looked for the best in others and given the best he had; whose life was an inspiration; whose memory is a benediction."

Thirst-Producing Foods

BY DAVID PAULSON, M. D. Superintendent of the Hinsdale, Ill., Sanitarium.

A PAINFUL corn suggests an ill-fitting shoe. A burning fever spells an infection of some sort. The average drunkard's craving for liquor is as real as is the consumptive's desire to cough. Is there as definite a cause for the one as there is for the other?

A prominent English physician tells of a drunkard who complained that the temperance people were forever insisting that he should *stop* his drinking, but not one of them told him how to get *rid* of the thirst that drove him to drink. The time has come when the wisest and the most successful temperance reformers are discovering that the poor drunkard's complaint deserves earnest consideration.

When the nerve centers are continually rasped and irritated by abnormal quantities of waste products and toxins it is not surprising that the harassed individual should seek the temporary and delusive felicity that the wine cup affords.

On this point the personal experience of Eustace H. Miles, the world's champion tennis player and well-known author, is instructive. He states that his physical condition compelled him to give up alcohol, for which he had a strong liking. Then he tried living upon a simple and non-flesh dietary. He was soon freed from his distressing symptoms, and, what was still more remarkable, his desire for alcohol also disappeared. Since then, whenever he has gone back to a flesh diet the craving for alcohol always returned.

The following report from the matron of the Salvation Army Inebriates' Home in England is particularly illuminating on this subject: "About three years ago I was induced by Mrs. Booth to try the vegetarian cure for drunkenness. I had been working in the Home for four years previous to this, with the usual mixed diet,—joints, bacon, salt fish, pickles, pepper, mustard, oysters, vinegar, etc.,—and I was very skeptical about this new idea.

"Since that time one hundred and ten women of all shades of society have passed through the Home. Two-thirds of these have been (so far as the drink and drug habits are concerned) the worst possible cases; the majority of ages being from forty to sixty, most of the habitual drunkards of ten, fifteen, and even twenty-five years' standing; some so bad that other Homes would not receive them.

"Some were suffering from delirium tremens; there were morphia maniacs, having periods of fierce craving for the drug, at times amounting to madness. Others were so unnerved and such physical wrecks (not having eaten sufficient food for weeks and even months) that I felt doubtful as to what would happen as a consequence of giving them this diet. You will agree with me that I had a variety of material to work upon. Now for results:

"Both myself and workers were quickly convinced that we had taken a right step. We found that the strain and anxiety about our work (inmates) gave place to a much more restful and peaceful state of mind; also that we could think and sleep better. Some of us had suffered from severe headaches for years, which gradually disappeared. This was splendid. We also found less need for medicine.

"But what was taking place with us was rapidly developing in the inmates, only their sad condition made the change much more marked. Lazy, vicious, bloated, gluttonous, bad-tempered women, heavy with years of soaking, whose bodies exhaled impurities of every description, who had hitherto needed weeks, and even months of nursing and watching, to my astonishment and delight under this new treatment made rapid recovery, assuming a fairly normal condition in about ten days or a fortnight. Mrs. W., who had been drinking hard for sixteen weeks,—twenty-five years a drunkard, came to us on a Thursday, and was up and about on the following Monday.

"Within four months we had practically abolished the meat diet. The people, as a whole, are much happier. We do not have violent outbreaks of temper as we used to; they are more contented, more easily pleased, more amenable to discipline."

We have had abundant opportunity to verify the same experience in an extensive experience with reclaimed drunkards in Chicago. Time and again to our sorrow we have seen a man who has apparently been thoroughly reformed, rejoicing in his freedom from the thirst for alcohol, yield to the entreaties of some of his well-meaning but ignorant friends to partake with them of a highly spiced flesh-food dinner. Too often it has served like the springing of a trap door to plunge the man, in a few hours' time, into the very depths of a drunkard's degradation. In view of this, how fitting the following words from the pen of Dr. Brunton, the eminent English physician:

"Some may think that, in speaking of cookery as a moral agent, I am greatly exaggerating its power; and they may regard it as idle folly if I go still farther and say that cookery is not only a powerful moral agent in regard to individuals, but may be of great service in regenerating a nation. Yet, in saying this I believe I am speaking quite within bounds, and I believe that schools of cookery for the wives of workingmen in this country will do more to abolish drinking habits than any number of teetotal societies, Good Templars, Blue Button Army, and others which have not been altogether a failure; but I do not think that their plan will ever be crowned with complete success, and I believe there is a better way of attaining their object.

"Supposing you go to visit a friend and find him taking a wet pack. He is in bed, wrapped up in blankets so that he cannot move hand or foot; a fly settles on his nose, and he begins making faces to try to remove it. You do not like to see him making faces and wish him to stop. Which would be the most rational method of doing so? Would it be to exhort him to summon all his fortitude to keep his face still, notwithstanding the annoyance, or would it be better for you to drive away the fly? No doubt it might be an excellent moral training for him to use his self-control and keep his countenance placid notwithstanding the irritation, but the simpler and more effective method would be to drive away the fly. Moreover, in nine cases out of ten, his power of self-control would be insufficient; and this is exactly what occurs with persons who have a strong desire for intoxicating liquors."

Nature has provided gratifying flavors for her natural foods, but the ignorant cook ignores this and imparts to the food such coarse and unnatural flavorings as mustard, pepper, ginger, and a host of other fiery substances which destroy the normal taste and leave in its place unnatural appetites and morbid cravings which can only be satisfied by such unnatural drinks as alcoholic liquors and other nerve-stupefving substances. It is a general law that unnatural flavors develop unnatural appetites, but if a man is fed upon the natural products of the earth and is taught to masticate thoroughly his food, he will soon begin to regain a normal and simple appetite.

On this point one of Mr. Fletcher's experiments is particularly interesting. He hired several tramps to come and eat food in his presence, and to masticate it thoroughly, according to the ideas that have since made him so famous. After a few days one of these men came and called attention to a dollar he had in his hand, remarking that it was the first time in twenty years he had had a dollar in

PRESENT STATUS OF VEGETARIANISM

his pocket that had not gone into the saloon-keeper's till. When Mr. Fletcher asked him how he accounted for it he explained that since he had begun to masticate his food thoroughly he had absolutely lost his desire for liquor.

Without attaching undue importance to this man's fortunate experience, it is well to note in passing that not only is nonstimulating dietary, sufficiently cooked, tastefully prepared with the food elements in proper proportion, an important adjunct to the temperance cause, but it is also a considerable consequence how it is eaten. On this point the late Dr. Kerr, the eminent English authority on scientific temperance, says: "The bottle has a potent ally in the bolting of food. The hasty dispatch of a meal leaves masses of food, not properly broken up and dissolved in the mouth, for the stomach to encounter, a task never intended to be thrown on that organ. The result is that digestion is attended with considerable difficulty, and this diseased condition craves for relief, and an alcoholic soother is employed which in many cases is the introduction to a course of periodic or constant inebriety."

The Present Status of Vegetarianism in the United States

BY REV. HENRY S. CLUBB, President Vegetarian Society of America.

T HE periodicals that openly advocate vegetarianism, besides the Vegetarian Magasine (Chicago), are Good HEALTH, New York Magasine of Mysteries, The Optimist, The World's Advance Thought, Life and Health, all the Physical Culture publications, Health Cul-

 ture, The Philistine, Signs of the Times, The Liberator, some of the religious periodicals and newspapers, and some of the Christian Science and new thought publications, while the host of cookery magazines and newspapers that give advice on cookery frequently publish vegetarian recipes and menus.

Newspapers having the largest circulation, such as the New York Herald. Tribune, Journal, Sun, and World, publish articles advocating a reduction in flesh-eating and some articles that openly advocate entire abstinence from flesh.

The advocates of raw food, nonbreakfast, and occasional fasting, called "perfect healthists," as well as the century clubs and "live forever" fraternities, are making the vegetarian practice the basis on which they build their respective theories.

Mrs. Henderson's book entitled "The Aristocracy of Health," is making a very marked impression on the well-todo society people, to whom it naturally appeals, coming as it does from a leading society woman at the national capital.

The Vegetarian Society of America is bringing that most easily digested cereal—rice—into such general use that it may eradicate the most prevalent disease,—dyspepsia.

In China, Japan, and other eastern countries rice is the staple food. The wonderful power of endurance of the Japanese soldiers in comparison with the soldiers of other nations, as shown during the investment of China a few years ago, and the strength and success of Japanese wrestlers, called our attention to the subject, and learning that the method of polishing rice to give it a pearly appearance deprives it of a large percentage of its albuminous and, fattening qualities, and that the l'apanese use it unpolished, our eves were opened to the advantage of unpolished rice. The trade refusing to supply rice in this form, the Vegetarian Society supplied it to the public, and thereby became the "introducers of unpolished rice." This year about forty times more unpolished rice has been sold than was sold the first year of its introduction-the increase during 1904-05 being about fourfold each year. The sale continues to increase in proportion to the publicity given to these facts. The effect of this effort has been to bring the vegetarian cause into more public notice.

It is found that in proportion to the increase in the consumption of health foods the consumption of flesh food is diminished, and that the most practical way to promote vegetarianism is to show the superiority of certain foods obtained from the vegetable kingdom, and make them easily accessible to the public.

A butcher who had closed his shop gave as a reason that "people are living on breakfast foods." The breakfast food business was started with Quaker Oats by Ferdinand Schumacher, a member of our society.

Sanitariums of the Battle Creek variety number about twenty-five in the United States.

The "Nature-Cure," a German institution, is also succeeding well in establishing numerous cures in various parts of the country, and they are mostly, if not all, conducted on vegetarian lines.

The fact is, vegetarian ideas and practices are quietly permeating the numerous health institutions, cures, and hospitals of America, and the introduction of unpolished rice is likely to prove the point of the wedge by which vegetarian practice will find its way into the public and private homes of America, just as Graham flour did sixty years ago, but now on a more extensive scale.

The establishment of vegetarian cafés and restaurants has been chiefly carried on by the friends connected with the Battle Creek Sanitarium, although not, we believe, under the supervision of that institution; twenty-four of these excellent establishments are listed and published in GOOD HEALTH, also eight health food stores in various cities supplied by the Health Food Company at Battle ^{*} Creek.

The McFadden Physical Culture Restaurants supplied by the Physical Culture Restaurant Co. in New York City number, we believe, over a dozen, and are doing a satisfactory business. There are some individual vegetarian restaurants in New York, Chicago, Detroit, Salt Lake City, Minneapolis, and other cities.

Much of the social life among vegetarians in the cities centers in these cafés and restaurants which are educating the public on the essentials of simple and pure food, and these centers take the place of the more formal social organizations and societies.

In all the principal cities the most popular and respectable restaurants have regard for individual vegetarian customers, and will serve them well when their preferences are known.

Heinz provides "Vegetarian Baked Beans" as one of his "57." Vegetarian tastes are being catered to by shrewd business men.

Several villages of Shakers, the scattered physical regenerationists (Wallaceites), the "Brotherhood" of Los Angeles, California, the Order of the

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Golden Age, the Pathfinders (Conabyites), the Theosophists, and several other denominations are among the vegetarians, some practical and others theoretical. The Salvation Army and Volunteers of America are also falling into line.

There has now been organized a society of "Essenes" after the ancient order of that name. We wrote to the chief promoter for information, and received from Miss Grace M. Brown, Denver, Colorado, a very interesting letter and copies of a modest little monthly periodical entitled, "Letter to the Essenes." The revival of the order of the Essenes, after a suspension of nearly 2,000 years, shows the renewed interest now being taken in vegetarianism.

The *Naturopath*, published by Dr. Benedict Lust, of New York, and printed in German as well as in English, is the organ of the Naturopath Society of America. It is an ably conducted monthly, and is thoroughly vegetarian. The "American Youngborn," opened April 1, 1907, at Butler, N. J., is a flourishing health institution conducted under Dr. Lust's direction. It is a "Nature Cure," and consequently maintains vegetarian principles.

We not infrequently hear of new schools of "Diet" and "Health," but unless they report the fact directly to us, we cannot list them as vegetarian, although we believe most of them are.

Information has reached us that a "University of Applied Science" is being established at East Hollywood, California. Mr. Norton F. W. Hazeldine, formerly of St. Louis, is promoter and vicepresident of the university. He writes:

"We are going to develop the cottage plan on our property, which is a tract of fifteen acres, with a twenty-room modern building, so you see we will have room for a large work."

We know Mr. Hazeldine well enough to believe that he will make vegetarianism the rule of his university.



A Remarkable Discovery

BY J. H. KELLOGG, M. D.

FEW years ago Masson, of Ge-A neva, in studying certain Bulgarian milk preparations discovered a new lactic-acid-forming ferment which excelled all other lactic-acid-forming ferments. In testing its properties he discovered that it possessed far greater quantities than any other known ferment. The eminent Professor Metchnikoff, of the Pasteur Institute, at once recognized the value of this new discovery, and after a careful study of the ferment, did not hesitate to recommend it as a most important means of combating many of the gravest forms of chronic disease, and especially that most inveterate of all human maladies, old age.

Professor Metchnikoff has long held the theory that old age, as well as many common chronic disorders, is due to poisons absorbed from the intestines. These poisons are formed by certain germs known as anaerobes. These germs are found in such great quantities in butcher's meat that Herter has given to them the name "meat bacteria." By the use of meat these germs are introduced into the intestine in great numbers. The poisons formed by these germs are extremely virulent, and when absorbed into the body, gradually break down the liver, kidneys, and other defensive organs, and so give rise to a large number of very common and very serious diseases. This chronic poisoning first makes its appearance in acute attacks, such as sick headache, nervous headache, loss of appetite, coated tongue, biliousness, bilious attacks, irregular action of the bowels, diarrhea, appendicitis, febrile attacks resembling malaria, and insomnia.

As the system becomes more and 612 more saturated with these poisons through the gradual failure of the liver and kidneys and the constant multiplication of the bacteria, other more chronic symptoms appear, such as constant headache, mental confusion, neurasthenia, nervous exhaustion, gall-stones, hemorrhoids, emaciation, browning of the skin, particularly about the eyes, neuralgia, pain and stiffness of the joints. After a time still worse conditions make their appearance, such as Bright's disease, sclerosis, or hardening of the liver, dropsy, chronic rheumatism, and rheumatic gout.

Chronic autointoxication is unquestionably a factor in nearly all chronic disorders, and lays the foundation for tuberculosis, cancer of the stomach, ulcer of the stomach, and other gastric disorders. Many women supposed to be suffering from disorders peculiar to their sex, are really suffering only from autointoxication, which is the natural result of the prolapse of the colon and inattention to the hygiene of the bowels.

It has long been known that the conditions above mentioned may be greatly relieved by the use of buttermilk and kumyss, but these remedies have never gained very great confidence for the reason that, while they have seemed to succeed remarkably in certain cases, in the majority of cases the relief obtained has been very temporary, and often their use has been attended by complete failure. The reason for this was the fact that the lactic ferment of kumyss and buttermilk is not able to live in the large intestine. This is the particular part of the alimentary canal in which the poison-forming anaerobes are found in largest numbers, especially in the cecum.

Metchnikoff's experiments show that the new lactic ferment has such great vitality that it is not only able to live but to flourish in the colon. Its great activity in the formation of acids enables it to kill off the anaerobes which can live only in an alkaline medium. Fortunately the new ferment is harmless, so that a person who is suffering from autointoxication may, by introducing into his alimentary canal a sufficient amount of the lactic ferment, drive out the poison-forming germs, or at least reduce their numbers to a very great extent. The importance of doing this will be realized when it is known that the poisons which they form are among the most highly toxic known. This is the reason why constipation produces headache, why diarrhea is accompanied by such terrible exhaustion. The headache and the prostration are simply results of the poisons which are absorbed from the infected intestines.

This ferment has been known for ages in Bulgaria and the orient generally. In Egypt it is known as leben. In these countries a milk preparation containing the ferment is prepared by sterilizing the milk and adding the ferment to it. It possesses the particular advantage that it does not produce alcohol as does the kumyss ferment, and when properly cultivated, it does not produce disagreeable flavors by decomposing the caseins and fats of the milk.

The use of the ferment has extended rapidly in France and Switzerland, and has lately been introduced into this country. For those who like milk and are able to digest it readily, the milk preparation is very satisfactory, although the preparation of the milk requires considerable care and pains to prevent contamination. There are many, however, —perhaps one-third or one-half of all chronic invalids,—with whom milk does not agree. Such persons have been termed by Combe "casein dyspeptics." For the benefit of such cases a concentrated preparation of the new ferment has been devised. Pure cultures of the ferment are made in the bacteriological laboratory and in concentrated form are introduced into small capsules. Each capsule contains ten million or more units. One or two of these capsules taken after each meal in connection with a proper dietary,- especially with the free use of such carbohydrates as farinaceous foods, especially rice, and best of all, malted cereals and maltose in the form of malt extracts or meltose-develop rapidly, and by driving out the invading anaerobes stop the formation of poisons and give the body an opportunity to clear itself from the accumulated toxins, and thus establishes conditions which render recovery possible. Those who like milk but do not like it sour may take it in its ordinary form with the meal. The capsules administered after the meal are fed by the lactose of the milk and other carbohydrates, and thus rapidly developing, are enabled to do their beneficent work.

This new method is based upon the discovery made some years ago by Metchnikoff that these lactic-acid-forming ferments are a natural means by which the body is protected from the overdevelopment in the body of the meat bacteria. The intestine becomes infected through the free use of meat and eggs. The introduction of this ferment is, then, simply aiding the natural method of defense and hence is not a method capable of doing any harm. It is, of course, evident that a person adopting this method should discontinue the use of meat entirely, and should not use eggs freely. The new ferment in concentrated form is furnished in this country under the name of "Yogurt."



Health News



Out of 114 counties in Missouri, forty-seven have voted against the saloon.

Two persons lie ill of typhoid fever in Springfield, Mass., from eating oysters.

The New York City Board of Education is contemplating starting a department of school hygiene.

As the result of the anti-corset campaign in Germany, statistics show a decided decline in the output of corsets.

At Manson, Iowa, twenty members of a threshing crew were stricken by ptomaine poisoning from chicken sandwiches.

As a result of eating ham at a party in Gardenville, Mo., eight persons were made ill by ptomaine poisoning, one of them critically so.

Fourteen physicians of Bremer county, Iowa, have been indicted for violation of the State anti-trust law, the Medical Society having raised fees.

The Intercollegiate Prohibition Association reports societies actively at work in 123 institutions of learning, with a membership of 3,200 student members.

Henceforth London milk will be delivered in paper pails made from wood pulp, thus doing away with the filth-harboring metal cans. Each pail can be used but once.

The St. Paul, Minnesota, assembly has passed an ordinance making it unlawful to sell liquor where lunches are given away or sold below current prices.

Investigation in the Chicago public schools shows that almost every case of failure to complete the work of the first or second grades is due to defective vision.

As showing the ruinous effects of absinthe, public investigation in France shows that of the 9.932 cases of alcoholic alienation, 4,882 owe their degradation to the drug.

Cleveland, Ohio, has begun a war on dirty money. Cases of smallpox and other contagious diseases have resulted from contaminated and filthy currency.

Inspector Brown, of the Buffalo health department, in a three days' tour of restaurant inspection, found out of twelve eating places only one where conditions were not either unwholesome or extremely nauseating. Prosecution will follow failure to clean up. 614 The most successful celebration of "German Day" ever held at Kewanee, Illinois, passed off September 25 without the use of the beer that has been so conspicuous heretofore.

During the past fifteen months American packing houses have lost 85 per cent of their trade in Natal. The loss is due to the awful conditions shown to exist in packing institutions.

A measure will be presented to the next Congress providing for the regulation of billboard contents and prohibiting objectionable, pernicious, false, fraudulent, or misleading advertisements.

At the National Socialist convention recently held in Essen, Germany, only one vote was cast against a resolution expressing opposition to the use of alcohol in any form during working hours.

According to Rev. Frederick E. Hopkins, who carefully investigated seventeen popular restaurants in Chicago, 55 per cent of the women who patronize the better class restaurants take alcoholic intoxicants.

The General Federation of Women's Clubs will conduct this winter a vigorous campaign for the improvement of the milk supply. "White-lists" will provide for practically a boycott of dealers who disobey sanitary laws

Milwaukee now has a public trades school, tuition free to residents, where full courses will be given in the mechanical trades. Due attention will be given to exercise, deep breathing being especially recommended.

British government statistics show that bakeries furnish 16 per cent, the housewife 80 per cent, of the bread consumed in the United States; in Scotland, 95 per cent; in England, 75 per cent, and in France 80 per cent.

Thirty-seven milk dealers were recently arraigned in Chicago accused of selling and delivering adulterated milk. Twenty-seven were found guilty and fined, eight were dismissed, and two cases were held over to a later hearing.

The Michigan State dairy and food commissioner has been enjoined not to publish a charge that Armour & Co., of Chicago, use cereals in the manufacture of sausage. A motion will be made to dissolve the injunction, on the ground that it interferes with criminal prosecution. Owing to the general defects in the lighting arrangements of public schools, near-sightedness, beginning at nothing in the lower grades, reaches 60 per cent and 70 per cent in the higher grades, according to a government circular.

For the purpose of preventing the spread of contagion by means of rats, San Francisco is offering a reward of five cents apiece for rats dead and delivered in tightly covered tins. The extermination of rats would make it next to impossible for a city to be visited by the plague.

Dr. H. I. Davis, of the Chicago Detention Hospital, states that in all the three years he has been connected with the hospital he has never given a drop of whiskey to his alcoholic patients. Asked what could be substituted as a stimulant, he replied, "O, a little punch in the ribs will do more good than whiskey occasionally."

Prof. William Osler, addressing the students of St. Mary's Hospital, London, warned physicians against abusing their health. "If you don't work too hard," he said, "you smoke too much, and are indifferent about exercise." Referring to drugs, he said, "He is the best doctor who knows the worthlessness of most medicine."

The New York City health department has adopted rigorous rules enforcing absolute cleanliness of all milch cows, cleanliness, light, and ventilation of stables, the providing of a separate house for the straining and keeping of milk, purity of milk, etc. A long list of recommendations leaves no one the excuse of ignorance,

The health officers of Southern California have organized themselves into a society for mutual effort in conserving public health. Special attention will be given to the pure milk question. The constitution of the new society makes eligible to membership any one who is interested in the maintenance and furtherance of public health.

The Pennsylvania health department has ruled that henceforth all Pullman car berths must be provided with sheets long enough to permit of being turned down two feet at the bottom. The order has especially in view the prevention of tubercular infection, as long sheets prevent the contact of a tubercular victim with the berth.

Secretary Wilson, of the department of agriculture, will ask Congress next session for authority to investigate interstate commerce in dairy products. Several cases of typhoid in Washington have been traced to outlying dairy farms, where a large per cent of the cattle were afflicted with tuberculosis, which they passed on to the hogs.

The Chicago School of Sanitary Instruction has been incorporated by the Chicago health department. Free instruction will be given to the public, including practical work with the city inspectors. "During the winter," says Commissioner Evans, "a large part of the work of the department will consist in educating the people on health subjects."

The management of the Bavarian State railways, in order to reduce tuberculosis among its employees, has passed rules that regulate the sanitary condition of ticket offices, baggage rooms, etc., and even of the homes of the men. Inspection will be regular and rigid, and the employees will be fully educated free of cost in sanitation and healthful living.

The food and drug inspection board of the department of agriculture has refused to recommend an extension of the privilege by which labels printed and on hand on October 16, 1906, which did not contain a misstatement as to nature of contents, but which failed to meet other requirements of the new regulations, might be used until October 1, 1907.

English vegetarians now include several persons of high rank: the Duchess of Portland, the Countess of Essex, the Duchess of Marlborough, the Duchess of Sutherland, the Countess of Carlisle, the Countess of Kenmare, Mrs. Asquith, wife of the Chancellor of the Exchequer, the Marchioness of Anglesea, Lord and Lady Charles Beresford, and Mr. E. F. Benson, the writer.

The National Association of Retail Druggists assembled in convention in Chicago, severely censured physicians who prescribe a patent medicine of which they do not know the formula. "When they send a patient to buy pills that can be fired through a board without breaking, a mixture that has been secretly changed a dozen times by medicine proprietors, it is about time they were warned," declared the president of the Chicago association.

Since close government inspection of foodstuffs have prevented fraud and criminal adulteration, many manufacturers and packers are trying to make up by selling short weight. Pure Food Commissioner Johnson, of Nebraska, who is making war on offenders, declares that the average shortage of weights is five per cent. Flour wholesalers in filling an order for a couple of tons of flour, instead of having it put up in eighty sacks, order it into unety, thus practicing a ten per cent fraud.

High Endurance on Low Proteid Diet*

BV IRVING FISHER Professor of Political Economy, Vale,

H EALTH is that condition of our bodily and mental functions which produces perfect balance and harmony, such an adjustment that the various organs of the mind and body-are perfectly related to each other, and to the life and work required of them. Herbert Spencer says that perfect health is perfect adjustment to one's environment.

Physical strength can be measured by physical forces. The strength of a muscle is the utmost force that that muscle can exert. It is 'tested by any test that will measure force in pounds.

Endurance is measured not by the utmost exertion of the muscle, but by a more moderate exertion repeated. It is measured by the number of times a muscle can repeat an exertion well within its strength; to be more exact, an exertion should be a certain definite fraction of the strength, say one-half, so that by this test we measure the endurance of a muscle by the number of times it can exert its utmost strength before it is unable to continue that exertion. Strength and endurance have been commonly thought to be much the same thing, but there is a distinction. Those people who have lost their health become interested in endurance as the only great thing; they conceive that it is basic, and that all success in life depends upon it. Those, on the contrary, who have health abuse it; they have what some one has called "the arrogance of health," they do not appreciate it; the only one of these three terms they do appreciate is endurance. This is because the ordinary healthy man is ambitious to work, ambitious to ac-

*Abstract of a lecture delivered at the Battle Creek Sanitarium, July 26, 1907. 616 complish as much as he can every day, every week, and every year.

It was largely for this reason that I took up the study of endurance. Another reason was that it was so intimately bound up with economic studies. It is certain that if we can discover those factors which make for the greatest endurance, we have discovered those factors which make for the greatest industrial efficiency. The study of endurance is bound up with the profoundest and most important studies in economics. I undertook two or three years ago to discover if possible what those conditions were which gave the greatest working power,-conditions as to ventilation of factories, as to length of working days, as to pleasant surroundings, as to duration of the noon hour for lunch, as to smoking and drinking, as to how the workman spends his time out of hours; and also last, but not least, conditions as to diet.

Natti, the Italian economist, had reached the conclusion that those nations had the greatest working power which were fed with the most nitrogenous food, or as we now call it, proteid food, the chief type of which is flesh. He stated his belief that the Anglo-Saxon races had more endurance than the Latin races. And he gave a number of facts which seem to show that this was true,

My colleague, Professor Chittenden, reached somewhat different conclusions through laboratory test and studies at Yale. And it was because of this apparent conflict between the older statistical conclusions of Natti and the newer physiological conclusions of Chittenden, that I was anxious to go over the ground again in the course of collecting some statistics. Some of my students who were assisting me in making charts and diagrams and computations became interested in what they read, and said that they wished to try some dietetic experiments upon themselves, and so Professor Chittenden and myself got up a report on the endurance of nine Yale students through the course of five months' experimenting in diet.

I also took up another experiment that was partly statistical and partly laboratory, comparing thoroughly the physical endurance of those of a high proteid with those on a low proteid diet. I will describe the second experiment first.

In this experiment there were fortynine subjects, a little more than half of them Yale students, and the most of these belonging to the high proteid class. Many of them were Yale athletes. The low proteid men were such men in Yale as I could find who either did not eat meat, or ate it sparingly. Then I went to the Battle Creek Sanitarium and got more low proteid subjects in order that the number in comparison should be more even.

Three tests for endurance were taken by the forty-nine subjects in this experiment. One was holding the arms out straight as long as possible, and the second was deep-knee bending. The third was lying on the back and raising the legs to a vertical position.

I brought with me on one of my trips to the Battle Creek Sanitarium a physician who, when in college, was a football player. He had a good physique, a good development, and regarded himself as an unusually healthy and robust young fellow, as he was. He ate meat three times a day. I was anxious to see how he compared with the Battle Creek doctors who had not eaten meat for years. I put him and another doctor face to face. And as those who abstained from flesh foods were thus far winning in this contest, I put the handicap on that side by allowing the vegetarian to begin one minute earlier than the other. The meateater then knew that if he dropped his hands first, he was beaten by at least one minute; and if he was to win, he must at least hold his hands out until the other man had dropped his. After a time his arms began to tremble, and finally they fell in spite of all he could do to hold them up. The other man had no particular object in holding his hands out and he only continued a few minutes more. The difference on the face of it was only four minutes, but the difference in capacity between the two was very much greater than that.

Another test was between a Yale student and a Yale professor. The student was a long-distance runner and was supposed to be a man who was possessed of the greatest endurance of all the men of the college. Of course, his endurance was not necessarily in the deltoid muscles that hold up the arms, but he was tested for that. The professor had been on a low proteid diet, though not strictly vegetarian, for several years. These men also faced each other, and at the end of eight minutes and fifty-four seconds the meat-eater's arms fell involuntarily, and it was impossible for him to get them up to level again. The other man continued to hold his arms out for thirty-seven minutes and then dropped them, not because he had reached his limit, but because he was so close to it that it was very painful to hold them out longer. It was found in the contests that men on a low proteid diet showed far greater endurance than those on a high proteid diet.

In fact, it was found that very few of the men who ate meat more than once every day or once every other day, could hold out their arms over a quarter of an hour. I think, in fact, there was only one high proteid meat-eater who succeeded in doing this, and he held his arms out twenty-two minutes. He was a baseball player, and was exercising these deltoid muscles every time he threw a ball.

The deep-knee bending I regarded as the most satisfactory test. In respect to that we took three hundred and twentyfive deep-knee bendings for reference, and we found that of the nine fleshcaters who took that test, only three passed that figure, while of the twentyone abstainers who took it, seventeen passed it. Seventeen flesh abstainers out of twenty-five were able to do the deep-knee bending more than three hundred and twenty-five times, and only three out of the nine flesh-eaters were able to do that. Here also we found that the flesh-eaters often reached their limit so that they were unable to come up to a standing position after a few hundred times. One man fainted when he reached about four hundred, and afterwards was unable to do any work for a long time. Others were so fatigued and sore after the test that they could not go downstairs without tumbling down, or had to be carried by the arm, and it was misery for them to walk upstairs for two weeks afterward. On the other hand, those who were on the low proteid basis did not suffer in that way. I will mention a few cases : A sanitarium physician came up to take the test, and did the deepknee bending 1,225 times, then stopped because he had to go to his office for fear his patients would abandon him if he did not.

The second case was that of a nurse at the Sanitarium, who did the deep-knee bending 2,400 times and went on with his work as nurse afterward with very little inconvenience with reference to soreness.

Another experiment with nine Yale

students I regard as more important than the others. These were graduate students, mostly in my own classes, who were helping me to get up statistics. They were interested enough to take up the experiments themselves. They accordingly organized an eating club, and their meals were measured day by day for five months.

These men were found at the beginning to be on a high proteid diet. I am not a physiologist, and did not wish to take the responsibility which only a physiologist or physician can take of prescribing their diet. Therefore I tried a simpler method. I tried to see whether Mr. Horace Fletcher was right in his claims that thorough mastication would lead one to reduce his proteid and also to increase his endurance. So the experiment was really an experiment, not so much in flesh or non-flesh diet, or high and low proteid,-that came in incidentally,-as it was a test of mastication, and a test of the claims of Mr. Horace Fletcher.

Mr. Fletcher's rules seem to me to be very practical for the ordinary layman who does not know anything about proteids, fats, and carbohydrates. They are summed up in this: Thoroughly masticate every morsel of food with the attention, however, directed on the taste and enjoyment of the food, and not merely on the mastication, which it is important should be done in order to produce what he denominates "appetite juice." It is the appetite that makes the gastric juice flow, and the man who merely counts his chews and makes a bore out of thorough mastication will do himself more harm than good.

The men were given a wide range of choice, so their appetite could become discriminating, and nothing was served to any of the men until he ordered it. It was the *a la carte* system, so the waiter simply announced the food that had been prepared, or it was put on the blackboard. The men followed these two rules -thorough mastication and obedience to appetite-for one-half of the five months. It was found that during the first half of the experiment, the men reduced the quantity of their proteid food very considerably, especially cutting out meats. The men said that they did not like meats so well when they had to chew them. The consequence was that by the middle of the experiment, the men had become partial abstainers. However, their progress was somewhat slow, and as there were only two months left in the experiment, and to increase the progress of the men in the direction in which they were moving, I added a third rule, that when the appetite was in doubt, the low proteid foods and the non-flesh foods were to be chosen, the low proteids, however, not to be chosen against the dictates of the appetite.

As a result, the men during the next two months of the experiment reduced their proteid and flesh foods very much, so that the consumption of flesh foods was only one-sixth as much as at the beginning, and the proteid had gone down about one-half of what it was at the first.

Now as to the results in endurance. No one was more surprised than I myself at these changes. It was found that the men's strength did not improve; in fact, it slightly fell off; but the falling off was immaterial, so we may say that their strength remained the same during the five months of the experiments, in spite of the fact that they did a great deal of hard work, which would naturally be expected to diminish it, and which, doubtless, explained the slight diminution that was found. But their endurance, in spite of all the hard work they did during this term, which they said was harder than they had ever done before, so far as it could be measured, improved.

The men improved in endurance so that in the middle of the experiments, they showed fully fifty per cent more endurance than at the beginning, and at the end of the experiment the average improvement of eight of the nine men was over ninety per cent, and I am satisfied that it was really over one hundred per cent. So we may say that these men at least doubled their endurance in the course of five months.

Still another experiment on the test of endurance was made, being so arranged and adapted as not to leave the disagreeable effects which were produced. by the former experiments. First, the men were tested on the dynamometer to ascertain the strength of a particular muscle; for instance, the muscle in the calf of the leg. We will suppose that the capacity of that muscle is four hundred pounds. That is, the man can lift four hundred pounds with that muscle. In the test he is placed on the top of a large table and a weight equal to threequarters of the capacity of the muscle is attached to his foot. He proceeds to lift that weight to a distance proportionate to his height at a certain rate per minute. In this way the muscle is only one-quarter wearied out before the man reaches the limit of his test. He is able to raise four hundred pounds, but at a second effort he is not able to raise quite so much, and so on until his strength is reduced to three hundred pounds when the experiment ceases, and he has not vet exhausted himself. It is found that the ordinary athlete at Yale can raise threefourths of his own strength anywhere from thirty to fifty times. That only takes a few moments, and when the test is over, the soreness is soon gone from the muscle and no bad effects are felt.

While the average number of times for raising three-fourths of the entire capacity of the muscle is from thirty to fifty times, the experiments in different men are found to vary enormously. Some men can act only eighteen times. A few can raise the weight one hundred times, and one of the men did it one hundred and seventy-five times; and that was the record until recently, when Mr. Horace Fletcher visited Yale.

When Mr. Fletcher came he was anxious to see this machine, and we were anxious to have him see it, because he was a man who had been preaching and practicing thorough mastication for a number of years. We thought this a favorable opportunity to see by actual test whether his seemingly extravagant claims would hold out. He was asked to make the trial, and it was found that his leg test was four hundred pounds, so we attached three hundred pounds in weight, and as he began the experiment, Dr. Anderson, our director, said, "Now, Mr. Fletcher, you are fifty-nine years of age. Remember that these young fellows are tough, and you must not overtax vourself." He asked what the average of raising the weight was, and was told that it was from thirty to fifty times. When he had reached thirty, Dr. Anderson told him he would better not go any further. When he got up to fifty, we told him that it was quite enough: and when he reached one hundred, we were very much surprised; and when he got up to one hundred and fifty, we began to think he would reach the record, and we became so excited that we forgot all about warning him that he must not overtax himself. And when he reached the record at one hundred seventy-five, he did not stop there, but went right on, and when he reached two hundred, all the men in the gymnasium came up to see.

So it went on, and when he got up to three hundred and fifty, Mr. Fletcher said, "Well, I have doubled the record now, so I think I will stop."

This shows what thorough mastication will do even for a man in his fifty-ninth year. I say "thorough mastication" because that is the key to it, since this leads to the establishment of a perfectly normal appetite and implicit obedience to it, which certainly, to my mind at least, is the secret of a perfectly natural diet.

I could cite from the prepared report of these experiments the remarks of men who took part in them, and who say that they have lost their taste for flesh foods. For instance, one man who was a very careful observer, says: "I can ascribe the gain in endurance to nothing but diet and thorough mastication. Every other factor in the situation was against this gain. During the test I had a long hard pull of work. My sleep was much decreased for most of the time. The conditions were made unfavorable rather than favorable to this test. Whatever the efficacy of the two tests may be, in proving the superiority of low proteid and thorough mastication for other members of the club, I feel convinced that they proved that superiority with considerable force in my own case. I have tried meat and chicken a number of times in the last two weeks, partly from curiosity and partly from necessity, and in each case anticipation has been pleasanter than realization, and my low proteid tendencies bid fair to remain for some time to come. I may say that I had no opinion in the diet question when the experiment started, but am now a hearty low proteid exponent."

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Steak-Equine and Canine

BY T. C. O'DONNELL.

WHEN Germany's "Jungle" comes to be written, an interesting feature will be a description of the slaughter of horses and dogs for human food. The price of beef and pork is high above the reach of the ordinary consumer, thanks to a prohibitive protective tariff. The people must have meat, however, and so eat the horses that have served them faithfully and the dogs that have been their companions. One cannot help speculating as to what they will take to when the supply of dogs and horses runs low.

After all, would not a Lamb find in this acquired taste of the Germans an explanation of how the Chinese came to regard the mouse as a delicacy? History has it that after the building of the Great Wall China was practically an isolated nation. Cut off from any foreign meatsupply, and her own running short, it would have been natural for the caterers to the public to supply their customers with the one inexterminable animal, the mouse. The taste is just about as accountable in the case of the mouse as in that of the dog and horse,

Be this as it may, there were slaughtered and consumed in Germany during the year 1906, 182,000 horses and 7,000 dogs. In Saxony alone, which embraces one-thirty-sixth of the area, and one-thirteenth of the population of the Empire, 12,922 horses and 3,736 dogs were butchered.

These numbers represent the animals merely that passed official inspection. There is an enormous amount of illegal, unregistered slaughtering being carried on. Quite recently the police force of Cassel were out on a search for a lost dog, for whose return its owner had offered a large reward. The dog was not found, but the officers discovered a private slaughter house, where a regular trade in dogs and dogmeat was being carried on, —if a traffic could be called a trade in which the dogs were got by stealing off the street, and the prepared product sold in the market for a good price. Prize dogs of good pedigree and the cur are all the same to these law-evaders. All go into the hopper together.

The most unfortunate feature of the case is that the traffic is on the increase. The 182,000 horses slaughtered in 1906 represented an increase over 1905 of 20,-000, and over 1904 of 47,000. The increase in the consumption of dogs is correspondingly rapid.

The German press gives full publicity to the traffic. Throughout the Empire, especially in the large cities, the newspapers advertise horseflesh delicacies (?) as freely as they do the old-fashioned delicatessen. Dogflesh is not quite so widely advertised, although it is not wholly neglected by the clever advertiser's art.

No claim in behalf of the unnatural taste for horse and dog can be urged from the standpoint of increasing population and consequently an increasing demand for flesh foods, a claim that has been put forward. For it is a fact that while this trade has been increasing, the amount of all other meats consumed, saving goatflesh, has decreased. Which all goes to show the demand for equine and canine flesh to be due to a mistaken idea on the part of the people that they must have meat, that they cannot live and work without it, and to a willingness to eat their old friends of long standing rather than pay for high beef under a high protective tariff.

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A Gurkha Rifleman's Tribute to Vegetarianism

BY J. CARVSFORT LOCK, Captain Third Queen's Own, Gurkha Rifles, India.

I N the Nilghiris of South India, some three years ago, I met a Philadelphia minister on a tour around the world. This good man boasted, with fervor, that he ate whatever food was set before him, with due thankfulness. As I picture up my omnivorous friend, with his determined look and ample waist, it is interesting to review the chain of circumstances which led to my renouncing a flesh diet.

Our friend attracted me by his evident sincerity, his broad-mindedness and undoubted intellectual ability. I had the good fortune to secure him as a guest for a few days. Although an excellent pulpit preacher, he was not given to cant, or to bringing forward his views unsolicited. If he thought he could help another, he did so in a practical manner. In my own case, after seeing my mode of life and my work, and shrewdly noting their weak and strong points, he one day casually mentioned the subject of psychology as a hobby of his, and recommended a book by Professor William James to begin with. He little knew what the result of his suggestion would be.

I found the subject most interesting. It enlarged my horizon and taught me that life is more than strategy, tactics, and regimental routine. I was suddenly filled with the desire to develop myself in every direction, morally, intellectually, and physically. Just at this time my wife, small son and self all became ill, and were ordered home to England for a change, where I met Eustace Miles, the well-known English tennis champion, athlete, and physical culturist. Mr. Miles was giving correspondence courses in physical, moral, and mental training, and I eagerly began studying with him.

I confess that when I was first advised, in the "health course," to try a fleshless diet, I was astonished, rather horrified, and had very little intention of complying. I had always regarded vegetarians as a curious set who dined in lowclass restaurants on greasily prepared cabbage, which inflated their stomachs and left them hungry. I looked upon vegetarianism as a species of religious fanaticism or mawkish sentiment. That there was a scientific foundation to its claims I never dreamed. I soon found the arguments sound, however, but I had difficulty in carrying them out. Most of my time while on leave was spent invisiting relations. Old aunts of eighty and uncles of seventy would little tolerate these "fads" in their homes, and to them much respect and consideration was due. Nevertheless I managed to reduce very much my consumption of flesh.

All this time I abstained from flesh food purely from reasons of health, not of sentiment, yet the desire to kill gradually left me, and the joy with which I missed my uncle's rabbits when asked to go out shooting was infinitely greater than any I had previously experienced in striking them.

Six months afterward, having returned to India and abstained from flesh in any form for a short time, I was able to write to a leading Indian newspaper, "The results in my case have been so marked that they read like an advertisement for a patent medicine. I am now absolutely free from headaches, indigestion, heaviness, and depression, from all of which I used to suffer. My memory and temper have improved. I sleep better and need less rest than before. I work faster and better; am keener generally, more active, and have much greater staying power. The saving in money and time has also been considerable. My food costs from one-third to one-half what it used to, and I have no need of doctors or drugs."

These results were brought about by the discontinuance of flesh foods and of the use of tobacco; by giving up alcohol in any form, and to a great extent tea and coffee; by chewing my food more thoroughly, and reducing the quantity which I consumed; by studying foodvalues and regulating my diet so that the essential elements are in approximately their proper proportion; by taking short hot baths, with a cold shower bath after; and by taking breathing, relaxing, and other exercises at intervals.

Some eighteen months have elapsed, and I have improved considerably along the lines laid down. The all-round advantages I have gained are inestimable. Physically I am a different man. Although I am thirty pounds lighter and considerably thinner, yet I am stronger and can endure infinitely better than before. My old nervousness has gone, my brain works better, and I am filled with

• a love of all around me that is quite new.

The way has not been altogether easy, for I have met with considerable opposition. My loss in weight alarmed many of my friends, who thought I was mad, and was on a short cut to the grave. I noticed that it was the unhealthy people who implored me most to adopt their ways.

Opposition, however, seems nearly dead now, and I am allowed to go my way in peace. In a few instances I have been able to help others into the road of health. But the crowning joy was the arrival of a small daughter five months ago, who is the brightest, jolliest, healthiest little person in the world, a contrast to my boy of four, who has always been delicate. This is the more remarkable, because my wife was for many years an invalid and wholly unable to nurse our boy, although we lived at the time in the bracing climate of the Himalavas; and yet here in the Turkish-bath-like climate of South India she has been able to nurse her baby without any difficulty, and is almost the only European mother in the station who can do so. We attribute her new and greater powers of endurance wholly to the more hygienic method of living which we have adopted.

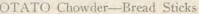


Night after Thanksgiving at the Vegetarian's

Thanksgiving of Ye Olden Tyme

BY MRS. M. A. EMMONS

MENU



P

2 cups sliced potatoes

1 medium-sized onion

Ripe Olives

Celery

Pecan Roast

Cranberry Jelly

Stuffed Date Salad--Wafers

Browned Sweet Potatoes with Tomato Cream Gravy Baked Onions

Currant Nectar

Pumpkin Pie Nut Sponge Cake

Nuts and Raisins

Fresh Fruits

RECIPES

Potato Chowder.

2 cups cream 2 cups milk ½ teaspoonful salt



Potato Chowder

Cook potatoes and onion in boiling water to cover until very tender and with but little water remaining. Add milk, cream, salt, and one-fourth cup cooked diced potatoes. Reheat and add crackers split and soaked in enough cold milk to moisten.

Pecan Roast

I cup coarsely rolled dried bread crumbs 2 eggs

- 1/2 cup chopped pecan nuts
- I cup milk

- 1 teaspoonful salt
- 1 1/3 teaspoonfuls grated onion

I cup cream 624

THANKSGIVING OF YE OLDEN TYME

Beat the egg, add milk and cream, salt, grated onion, bread crumbs, and nut meats. Soak all 20 minutes, and bake in moderate oven 30 to 40 minutes.

Cranberry Jelly.

Pick over and wash four cups cranberries. Cook in one cup boiling water until tender. Rub through a sieve, add two cups sugar, cook five minutes. Turn into mold or glasses.

Browned Sweet Potatoes.

Scrub the potatoes until thoroughly clean, and cook in boiling water to cover until tender. Remove the skins, place in a baking dish, brush with melted butter, and bake until a rich brown.



Baked Onions.

Remove skins from onions,

Stuffed Date Salad

cook in boiling salted water with cover off until soft, but not broken.

Remove centers and fill cavities with equal parts stale soft bread crumbs and the onion that was removed, finely chopped. Moisten with cream or butter, and season with salt and sage.

Place in shallow buttered baking pan, and bake in moderate oven.



The Harvest

Stuffed Date Salad.

Wash dates and remove stones. Fill cavities with English walnuts, and shape in original form. Arrange on salad plates, and serve with golden salad dressing.

Pumpkin Pie.

1 cup pumpkin 1 cup cream 1⁄4 cup molasses 1⁄4 cup sugar

2 eggs ½ teaspoonful salt Meringue with whipped cream

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GOOD HEALTH

Mix ingredients and bake in one crust, using pie paste as given in October GOOD HEALTH.

Nut Sponge Cake.

4 eggs (beaten separately) 1 cup sugar 1 cup pastry flour Cream I cup chopped nuts
 I tablespoon lemon juice
 1/2 grated lemon rind
 Yolk of eggs

Add sugar little by little, beating it in thoroughly. Add flavoring. Beat

whites of eggs un-Alternating, a d d whites and flour, fully with wire account stir either eggs or flour in, drive out the air, in remaining egg and lastly the nuts. low pan in a for 20 to 30 min-



til stiff and firm. one-half of the egg folding in careegg whip. On no the whites of the since stirring will Do not beat. Fold white and flour, Bake in a shalrather hot oven, utes.



THE AUTUMN MOON

Meanwhile the moon,

Full-orbed, and breaking through the scattered clouds,

Shows her broad visage in the crimsoned east.

Turned to the sun direct her spotted disc, Where mountains rise, umbrageous dales descend,

And caverns deep, as optic tube descries A smaller earth, gives us his blaze again, Void of its flame, and sheds a softer day. Now through the passing cloud she seems to stoop,

Now up the pure cerulean rides sublime.

- Wide the pale deluge floats, and streaming mild
- O'er the skied mountain to the shadowy vale,
- While rocks and floods reflect the quivering gleam,
- The whole air whitens with a boundless tide
- Of silver radiance, trembling round the world.

-Thompson, The Seasons.

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THE WALKING CLUB

Overland Walking Club Constitution



HE Overland Walking Club was first organized three years ago, by Mr. James Hutchinson, at Jackson, Michigan. Total abstinence from all drugs, alcohol, tobacco, and profanity was from the first the chief qualification for membership. Another requirement is that each member during his first year walk two hundred miles; each year thereafter, four hundred. A constitution has now been drawn up by the club, defining qualifications, duties, dues, etc., of members, which the Secretary has kindly sent to GOOD HEALTH, the official organ, for publication. The officers of the Overland Walking Club desire to extend the work of the association to all parts of the country by the formation of local clubs. International affiliation has even been suggested for the near future. The Secretary, Mr. Albert A. Chamberlain, 626

N. Hill St., Jackson, Mich., will be glad to correspond with any GOOD HEALTH readers who are interested in the movement, and to assist in the organization of local societies.

CONSTITUTION

ARTICLE I.

TITLE.

The name of this organization shall be, The Overland Walking Club.

ARTICLE II.

MOTTO.

The club motto shall be, "A Sound Mind in a Sound Body."

ARTICLE III.

OBJECT.

The object of the Overland Walking Club is to effect the conditions stated in the motto, through clean exercise, clean living, and clean thinking.

ARTICLE IV.

PRINCIPLES.

We believe in total abstinence from all drugs, alcoholic beverages, tobacco, and profanity. We believe in exercise, taken regularly, and in clean thinking.

We believe that walking is one of the best exercises to assist in accomplishing the objects of the club. ARTICLE V.

HEADQUARTERS.

The headquarters of the Overland Walking Club shall be at Jackson, Michigan, unless or until otherwise decided by a two-thirds referendum vote. At the headquarters all business pertaining to the club at large shall be transacted, including the keeping of records, the dissemination of literature, election or appointment of organizers or workers, general correspondence, etc. ARTICLE VI.

OFFICERS AND TERMS.

The officers of this club and of each of its chapters shall be a President, Vice-President, Secretary and Treasurer; and their terms of office shall be one year, or until successors are elected.

ARTICLE VII.

DUTIES OF OFFICERS,

The President shall preside at all meetings, and shall be ex-officio a member of all regular committees. He shall appoint all committees unless otherwise ordered by vote of the house.

The Vice-President shall preside in the absence of the President, and on such occasions he shall assume all the duties of that officer.

The Secretary shall be recording and corresponding. He shall keep a correct record of the proceedings of each meeting and shall be prepared to read them at the next regular meeting. He shall also keep all other records and literature of the club and attend to all correspondence except that pertaining to the collection of dues.



A Few Members of the Overland Walking Club

The Treasurer shall act as financial secretary and treasurer of the club. As financial secretary he shall keep an account between the club and each member, and collect all dues. As treasurer he shall keep all funds and moneys belonging to the club and shall pay out the same: *Provided, however*, that no payments are made without the written endorsement of the President and Secretary in each instance.

ARTICLE VIII.

ELECTION,

The annual election of officers shall take place at the meeting place of each chapter on the first Monday in April. ARTICLE 1X.

COMMITTEES.

The standing committees shall consist of one executive committee, composed of the officers of the club, and one regular committee for the selection of a suitable annual trip for the second year from the election of the said committee, the term of said committee to expire as soon as trip has been voted upon by the club. Other regular committees may be established by a vote of the club. Special committees may be appointed as the club may desire. ARTICLE X.

MEMBERSHIP.

All men 18 years of age or older may become members of the Overland Walking Club upon subscribing to the principles and rules governing the organization.

ARTICLE XI.

TIME OF MEETING.

Meetings shall be held at the call of the President, or at regular intervals as decided by each chapter.

ARTICLE XII.

CHAPTER ORGANIZATIONS.

Chapter organizations may be effected in any community by five or more eligible persons upon their subscribing to the code of principles and to the by-laws furnished from the club headquarters. Officers shall be elected in accordance with the provisions of this constitution. A copy of the list of officers must be transmitted by the Secretary-elect to the club headquarters, when due credentials will be issued.

ARTICLE XIII.

AMENDMENTS.

This constitution may be altered or amended at any time by a two-thirds referendum vote.

BY-LAWS

FOR THE GOVERNMENT OF INDIVIDUAL CHAPTERS OF THE O. W. C.

RULE 1 .- Five members shall constitute a quorum.

RULE 2.-Each member must walk at least 200 miles during the first year of membership, and 400 miles each succeeding year.

RULE 3.-Each member must subscribe to Article IV of this constitution.

RULE 4.-The club dues shall be \$1.25 per year, payable at stated intervals to be decided by each chapter. This will include a yearly subscription to the magazine Good HEALTH, the club organ.

RULE 5 .- Members may be suspended or expelled for failure to comply with any of these rules.

RULE 6.-Each member shall report to the Secretary of his chapter each month the number of miles walked during the previous month. It is understood that walking to and from business and walking done in the ordinary course of business is not to be counted.

RULE 7 .- Such additional rules as the good of the club may demand shall be established by each individual chapter.

Walking a Cure for Obesity and Emaciation BY BENTON COLVER, M. D.



an enthusiastic amateur pedestrian, who was told by asked, "Do you think walking will

SHORT time ago To a negative reply, he offered these second-hand objections of his friends:

"Is not walking prescribed for obesity to reduce weight? Is it not a successful anxious friends measure in bringing this reduction about? that walking If so, is it not apparent that applied to caused emaciation, my case it will reduce my weight, even to emaciation?"

The hastening from premises to conmake me thin?" clusion involved the question so that a mere denial would not suffice, making it necessary to explain the philosophy of exercise to answer this apparent paradox.

Physical exercise is a rather more complex process than it at first seems. One is likely to see in the muscular movements only the mechanical action,—a self-controlled engine in motion.

There is, however, another and more important process behind the visible contraction of the muscle. A mammoth lo-



The Path along the Water's Edge

comotive is seen crawling slowly out of the train shed, attached to a string of heavily laden cars. It gradually gains speed, and in a moment is whirling thousands of tons along at an almost incredible rate. From a distance the engine appears unmanned and without control, but a nearer view shows a mere speck, the engineer, perched high up in his cab, and controlling this giant with a grasp of the hand. He is the intelligence directing the action.

Similarly does the intellect control the fine movements of the delicate muscles.

In a series of purposeful motions, proportionately as much nerve as muscular force is expended. As in the engine, however, the larger movements of the body require but little control. Once set in motion, they are said to be automatic.

The engineer is most alert and active while his engine is slowly crossing a maze of yard tracks, and the lights of red, white, and green are gleaming in bewildering numbers. When the double line is reached, and the "clear track" semaphore shows section after section open, the engine thunders along, while the engineer scarcely moves his eye from the distant perspective,

So in the large, free body movements. A man in an easy, swinging walk moves his legs and arms, and sways and balances the trunk with machine-like precision, and all without thought. The lower spinal centers are in control, and the loss of brain energy is practically eliminated. In this condition the blood current is quickened and the flow is easier; the heart-beat is strengthened, the breathing deeper, and the vegetative functions stimulated. The breakdown of tissue is normal, and the building up process is not retarded.

To a normal person, these grosser exercises, of which walking is only a type. stimulates all the functions to proper action. The energy expended calls for fuel, thus creating a demand for food. The glands are energized to produce better digestive ferments, and the food taken is properly absorbed. The active muscle cells receive the absorbed food and extract the proper elements for fuel and repair. The eliminative organs, with freer blood flow, rid the body of its poisons. The result is not obesity, nor the storing up of great quantities of unused fuel, together with the deterioration of body tissue. Nor does it produce emaciation, which is the absence of properly absorbed and assimilated food in the cells. The result is a body of symmetrical proportions, of fine muscle, and with an active brain.

On the other hand, the finer exercises, involving the use of the smaller muscles, are attended by nerve exhausting care. Instead of the free, large movement, the mind is intent on exactness of execution. This factor is valuable in educational gymnastics for the child and youth. In an adult, however, especially in the case of the sedentary brain worker, too much nerve strain during exercise is harmful. Walking, swimming, skating, horseback riding, rowing, golfing, cycling, tennis, all are of the muscular type, and suited to the sedentary worker.

The person who is too fat is usually so for more than one reason. Several factors enter into obesity in general, and in practically every case more than one of these is present. A family tendency is often noted. This possibly means that

by heredity powerful digestive organs are given each member of the family. They may eat more than is needed, and the excess food, instead of being passed off untouched, or perhaps causing digestive disturbances, is digested, absorbed, and stored up in the body as fat. Then, too, the fat person is, as a rule, not very active. He does not take enough exercise to consume what his appetite demands, and his stomach digests. By this combined ability to digest more than he needs, and the appetite to

take it, an accumulation of fat and inferior tissue inevitably results.

Long walks, swimming, golfing, and similar exercises take large quantities of stored-up fat to furnish energy. The exercise and quickened circulation change the tissues from flabby, weak muscles, to firm, elastic machines. The appetite will very likely increase proportionately, and unless care is taken the "excess intake" will keep pace with the demand. This would result in general bettering of health, but in no reduction in weight. A little regulation, however, will insure both these beneficial results.

On the other hand, the chronically thin person is thin because he does not get enough into his system to allow a gradual storage of reserve fat. He may eat great amounts of food, and his stomach may digest well, but his food does him no good. The absorption of food from the intestine is under nerve control, and if the nerve centers are over-



wrought, absorption is greatly retarded. The look of nerve strain that the emaciated man wears on his face during the stress of the busy day is more than an outward appearance. The same strain ties up normal activities; digestion and absorption are poor, and cell assimilation is at the lowest ebb.

To this man a strenuous course in gymnasium work only further emaciates and irritates the "frazzled" nerves. On the other hand, "double - track" exercises, where the large muscle masses act

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freely and automatically, stimulate tissue growth. An increase in muscle and a normal deposit of reserve fat result. The average business man on a month's vacation gets out of the maze of switch-yard tracks, and returns with several pounds increased weight, with better muscles, improved digestion, and clearer brain.

The reason walking is so commonly spoken of and prescribed is that it is universally applicable. Comparatively few can take the time and have the facilities for the more complex exercises of horseback riding, swimming, tennis, etc. Then, too, those who do avail themselves of these have only their own feelings to

BOOTH A VEGETARIAN

SALVATION ARMY GENERAL SENDS HIS BILL OF FARE AHEAD.

No Roast Beef and Mutton Chops for Distinguished Visitor-What He Eats.

If the steward and chef at the Plankinton house are preparing to treat Gen. William Booth, the head of the Salvation Army, when he arrives in Milwaukee Thursday, they will be greatly disappointed. Gen. Booth comes to America from England, but he cares nothing for roast beef and mutton chops, mint and caper sauce, muttins and erumpets and plum pudding.

The English bill of fare was turned down by the general when he arrived in Minneapolis. It was prepared especially for him by the chef of the West hotel, but the general-waved it uside. Instead of accepting the hotel's bill of fare, the general prepared one for himself. There were side notes and annotations, too-all about how to prepare food to be set before the general. Here it is, and the rule will go when the general and his party arrive at the Plankinton.

Breakfast, 7:30 a. m .- Ceylon tea, bolling hot mlik, dry toast and butter. In making the toast the bread should be gradually toasted until it is both dry and crisp, yet not too hard.

say how much exercise they will take, and as a result they are likely to exercise but two or three times a week. Thus two essential factors, regular daily work and a definite amount of it, are practically lost.

The city dweller, who is deprived of daily country walks, may measure his walk by blocks, adding to the number until he reaches four to ten miles a day. Much of this can be done in going to and from work (by allowing but a few minutes more for the trip). Thus he insures, daily, out of doors, muscular work, which will stimulate while at the same time it does not exhaust his nerve centers.

Midday meal, 12:30-Vegetable soup, a roast potato with another vegetable that may be convenient. To make this soup use one carrot, one turnip, a small head of spinach, one onlon cut up tine, heaping teaspoonful of pearled barley, add in water as may be required. Just before serving sprinkle with chopped parsley and add a lump of butter the size of a walnut.

Tea, 4:30 p. m.—Same as breakfast. Supper, usually 9:30 or 10 p. m.—Plain mak pudding or boiled rice or tapioca without sugar.

It is on this diet, without meat, that Gen. Booth has retained the vim and strength of a young man, although he is now in his seventy-eighth year. He became a vegetarian several years ago, not from principle, but because he finds it suits him. He always takes a short rest after the midday meal, lying down for a quarter of an hour or twenty minutes, in the dark.

Gen. Booth would notice no inconvenience if he had to live for a month on dry biscuits, but he would find it hard to endure speaking with a chandelier flashing in his eyes, or sitting still in clothes damp with perspiration. From 8 o'clock in the morning until 11 in the evening the old general remains busy, excepting the short map after lunch at noon.

- The Milwoukee Eraning Wiscensin Oct 15, 1907-

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DEAR CHILDREN OF THE GOOD HEALTH FAMILY :

For our lesson this month let us consider the making and serving of breakfast. It must be considered from a number of standpoints. In the first place it must be considered in relation to the season of the year. A breakfast designed for Christmas would not be ideal for the Fourth of July. In the winter we need more fat and proteid than in the summer, when fresh fruit and vegetables should form a large part of the menu. The locality should also be considered. Foods which are native to a place are usually less expensive than those which must be imported, and are usually much more delicious and wholesome on account of having an opportunity to mature before being harvested. Florida and California oranges which are obtained in Michigan are not nearly so delicious as those which are obtained in their native clime.



The Lesson in Cooking (Battle Creek Sanitarium Cooking School)

In planning the breakfast the occupation and age must be an important consideration. Persons engaged in manual labor require about twenty-five per cent more food than those engaged in sedentary work, and children proportionately more than adults. The adult has finished the building of his house and needs only to keep it in repair, but the child must both build and repair.

The wholesomeness of the dishes is perhaps of all the most important consideration, not only because of the effect upon the digestive organs, but also because of the effect upon the morals. Foods which are prepared with large quantities of salt or highly seasoned with irritating condiments are likely to incite a thirst that is unquenchable with water only, and therefore leads to the temptation to use something stronger.

A breakfast should be simple, quickly prepared, easily digested, and daintily served. Simple foods are much more easily digested than complex mixtures. The breakfast should be prepared within a short time after the preparation has begun. No one cares to arise in the night season to prepare the breakfast, and this is entirely unnecessary, especially so with the great flood of breakfast foods that is now on the market.

It is especially important that the foods comprising our breakfast should be easily digested. Our body has been rightly compared to an engine. After it comes in from a long trip it goes to the shops for repair. When we retire at night our "engine," as it were, goes into the shops for repair. The night hours are the time when the processes of assimilation and repair go on most actively.

The material used for repair is the food which we have eaten the day previous. It is about fifteen hours from the time of eating before our food is actually assimilated and thus becomes a part of our bodies. Hence when we awaken in the morning our bodies are repaired and we are probably, if we have had normal sleep, in the best condition that we shall be in for the next twenty-four hours, and should be able to do the very best work of the day. Our bodies need now water and fuel to start on the journey of the day. But if we load our digestive organs with a lot of indigestible material, or food which is difficult of digestion, we not only impose an unnecessary tax upon our digestive organs, but we also rob ourselves of the energy which is used in the digestion of them. Energy is like money. When we use it for one thing, it is lost to us. We cannot use it for another, hence something light and easily digested, requiring little energy, is most appropriate for breakfast. Especially is this true if one leads a sedentary life.

Still carrying out our comparison, one of the first things our engine needs is *water*. A cup of water taken the first thing after arising is a most excellent practice. It acts as an internal bath and is quite as important as our external bath. If water is distasteful, then a glass of fruit juice or some juicy fruit is equally as good. Some one may ask, Shall we serve beverages for the breakfast? This would depend upon the nature of the meal and the condition of the individual. If the breakfast is a light one and the individual normal, a cup of hot cereal coffee or some hot fruit juice is not objectionable.

Fresh fruit of some kind, preferably some juicy fruit, should be the first course, both because of its appetizing qualities and because of the fruit acids which are a natural antiseptic. Disease-producing germs cannot live in fruit acids; even the cholera germ cannot withstand them.

The cereals when properly prepared make a most wholesome breakfast dish. The custom of stirring a little oatmeal into some hot water until it thickens up cannot in any way be recommended. It is a most harmful practice from the fact that by so doing it is utterly impossible to thoroughly cook the starch, which is the chief constituent of the cereal. Most of the cereals contain considerable cellulose, which is quite firm and requires prolonged cooking to soften it. Hence with the exception of rice and farina, or some cereal preparation which is quite finely ground, most cereals should be cooked from three to six hours. But some one may say that this cannot be an ideal food, since it requires so long to pre-

THE COOKING SCHOOL

pare it. True it is not, unless it be cooked the day before and reheated for the breakfast. Even then we cannot say that it is an ideal breakfast food. While we do not discountenance the use of these cereals altogether for normal healthy people, the mushes as a class are not the most wholesome way of serving the cereal.

The dry foods, such as thoroughly toasted bread, corn flakes, etc., are a much more wholesome way of serving these cereals, the reason for which you will remember was explained in the March number of GOOD HEALTH. It is also important that we should have some idea of food values, as we are beginning to find that the amount of proteid in the diet of the average American is too high. Usually one proteid dish at a meal is sufficient, and sometimes more than is necessary. One should keep well in mind the sources of proteid, and in this way one can get an idea of what the proteid dishes are. Below are some breakfast recipes:



Rice Croquettes

Orange Pulp.

For each person served, select one large orange. Cut in two, and with a lemon reamer drill out the pulp of the orange. Put this on ice until chilled. Serve in sherbet glasses. This is a most refreshing way of serving oranges for breakfast.

Corn Flakes with Raspberry Sauce.

Toast the corn flakes slightly in the oven and serve with the following sauce:

3/4 cup of raspberry juice. Two tablespoonfuls water. Two teaspoons corn starch.

Drain the juice from a can of red or black raspberries. Moisten the corn starch with the cold water and stir into the boiling juice. Cook in double boiler fifteen minutes.

Lyonnaise Potatoes.

3 medium-sized	boiled	potatoes.	2	tablespooni	fuls butter.
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I small onion.

1/4 tablespoonful salt.

2 sprigs of parsley.

Put the butter, chopped parsley and grated onion into a double boiler. When

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the butter is melted, slice and add the potatoes and also the salt. When thoroughly heated throughout, serve.

Rice Croquettes.

1/2 cup rice.1 tablespoouful grated onion.2 cups of water.1 tablespoon celery salt.1/2 cup of milk.2 tablespoons butter.1/4 cup of flour.1 cup corn flakes.1 egg.

Put the rice into the boiling water and cook slowly in the inner portion of the double boiler for fifteen minutes, then place in the outer portion of the double boiler and finish cooking. When the rice is thoroughly softened and the liquid has been absorbed, add the onion, celery salt, and butter. Make a thick cream sauce by adding the flour braided with a little cold water to the hot cream. When cooked remove from the fire and add the beaten egg. Into this stir the seasoned rice. When thoroughly mixed dip by spoonfuls into previously crushed corn flakes and shape into oblong cakes and bake in a hot oven until set.

	French Apple Toast.			
1/2 cup of milk.	4 slices of bread.			
I egg.	3/4 cup of apple sauce.			

Beat the egg slightly and add the milk. Into this dip for a moment the bread, one slice at a time, and place on butter tins in a hot oven, and bake to a nice golden brown. Remove from the oven and place on each slice a spoonful of apple sauce. This makes a delightful breakfast dish.

Effects of Alcohol on School Children

A S a result of investigations on the moral, physical, and intellectual conditions of school children, T. A. Mac-Nicholl, of New York City, finds that the disabilities from environment are exceedingly marked, especially in city children, and that the drinking habit among children, particularly those of foreigners, is far too prevalent. Out of 34,000 children in good circumstances, 73 per cent were abstainers, 23 per cent beer drinkers, 4 per cent spirit drinkers, including wines. Out of 6,879 children in poor circumstances, 50 per cent were abstainers and 4 per cent drinkers of beer and spirits. Of this class, 36 per cent of the American born and 50 per cent of the children of foreign parents, drink. Of

the drinking Americans, 9 per cent had foreign-born parents and great-grandparents. Of the well-to-do children, 68 per cent have abstaining parents; of the poorer children only 15 per cent. Of 12,919 dullards among the well-to-do class, 9,689 had drinking parents. Of 3,-195 dullards among the poorer children, 2,715 had drinking parents. The effects of alcohol in producing organic disease in the children are also noted. He finds that the alcohol habit, superadded to the stress of modern life, puts an increasing strain on each succeeding generation. The poverty due to money going for drink adds to the burdens of childhood, and an alcoholic environment is directly unfavorable .- Cooking Club Magazine.

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Chautauqua School of Health

The Local Hot-Air Bath

BY J. H. KELLOGG, M. D.



HE local hot-air bath consists in the application of superheated air to circumscribed portions of the body; for instance, to an arm, a limb, or a knee-joint. B y means of a prop-

erly arranged chamber connected with a kerosene or gas lamp, as shown in the illustration, it is quite possible to bring to heated. The limb to which the application is to be made is placed in the box and covered so as to prevent heat escaping.

As general perspiration is always induced when the application is prolonged, undress the patient, and at the conclusion of the bath make a short cold application to the entire surface of the body as well as to the part treated. A cold mitten friction, a cold towel rub, or a wet sheet rub, as described last month, are the best measures for this purpose. Avoid chilling the patient, and promote

bear upon a certain part of the body a local temperature of 300° to 400°.

> The Japanese administer the local hot - air bath in a very simple manner. A properly constructed box is placed over a quantity of live coals until it is thoroughly



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immediate and thorough reaction by careful drying and thorough rubbing.

Remarkably excellent effects are obtainable by the frequent application of the localized hot-air bath, especially in cases of rheumatic joints, chronic inflammation of the joints with exudates and allied affections. The duration of the application may be a few minutes to several hours, according to the intensity of the application, the sensations of the patient, and the

nature of the case under treatment. In chronic affections, prolonged applications are usually necessary. In more acute cases, short applications are preferable



and quite sufficient. When the limb is removed from the hotair chamber, it may be wrapped in a large mass of cotton or wool, covered with oil or rubber cloth, then with flannel, to continue the effect of the bath. Before applying the dry pack, wrap a towel wrung dry out of cold water about the part and vigorously rub for 10 or 15 seconds to secure a strong circulatory reaction, so as to fix the blood in the skin and to render the revulsive effect more

permanent. This bath should not be used in cases of acute inflammation, in general fever, or in cases in which the skin of the parts is diseased.

Home Management of Acute Bronchitis



BY KATE LINDSAY, M. D.

CUTE Bronchitis, or what is commonly known as a "cold on the lungs," may be either a comparatively mild or a grave disorder, according as it is confined to the large or medium - sized tubes or extends

into the smaller bronchi. When due to a cold in a robust patient with previous good health, the disease usually runs a self-limited course of a week or ten days, if the patient is reasonably careful, and leaves no lasting bad after-effects.

When the smaller tubes are involved, and the patient is an infant or young child under five, or is convalescing from *la grippe*, measles, whooping cough, scarlet fever, or any other serious infectious disorder, it often becomes a very grave and fatal disorder. Capillary bronchitis is the complication most frequently causing death in all infectious children's diseases. A cold in an infant a few weeks or months old may, by extending from the nose and throat to the smaller bron-

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chial tubes, be fatal within a few days. The disease is also fatal in old people and feeble invalids, as also in patients who suffer from chronic organic disorders, such as rickets and tuberculosis, and organic heart, lung, and kidney troubles.

The predisposing causes of bronchitis are impaired digestion, anemia from any cause, old age, living too much within doors in overheated rooms, and out-ofdoor exposure in improper dress. The exposure of the extremities in insufficient clothing, sedentary occupations in close, dusty rooms, all infectious disorders by irritating the air passages and weakening vital resistance, predispose to this disorder in its graver forms.

The symptoms of an ordinary attack of bronchitis, involving only the larger bronchial tubes, are impaired appetite, a cough, dry at first, then in a few days becoming loose, expectoration being profuse and yellow in color. There is a slight chilly feeling, a moderate rise of temperature from 100° to 101°, and a stuffy feeling in the chest with difficult breathing under extra exertion.

The treatment is very simple, consisting of a fast for twenty-four or fortyeight hours, rest in bed in a well-ventilated, moderately warm room, a hot footbath, or full bath at night if the patient retires immediately and keeps warm, a saline cathartic and enema to clear the alimentary canal of all morbid secretions and excrementitious matter, free water drinking, either cold or hot, as is most agreeable to the patient. After the fast, take a light fluid aseptic diet of gruels and fruit juices for a few days, and avoid either overheating in close, badly ventilated rooms, or undue exposure of the skin to cold and dampness. If the body is properly covered the patient may lie on a cot in the open air, and so long as the surface is warm, the inhaling of cool fresh air will hasten his recovery. The dangers of a relapse come generally from overeating too soon after convalescence, from a chilling by getting the feet wet, from sitting around in damp clothing, or going to work in close, overheated rooms filled with foul gases and irritating dust. Repeated attacks of acute bronchitis often lead to chronic bronchitis, a very persistent and troublesome disorder.

A cold on the lungs of an infant often involves the smaller bronchial tubes, and if severe, usually results in collapse of portions of lung cells from closure of the tubes leading to them. The patient, if he recovers, suffers from curtailed breathing capacity and has scar tissues left which predispose him thereafter to tubercular infection. The symptoms are often grave. There is not the loud ringing cough natural to a child; in fact, the coughing is often inaudible. The temperature often rises to 103° and 104° F. The face is either pale and pinched, or blue and dusky. The breathing is rapid, labored, and shallow. The ribs are drawn in, instead of expanded, in inspiration; the baby's head is hot and the fontanel, or soft spot, full and throbbing. At times there is delirium, at others profound stupor. The treatment must be very thorough, and include plenty of fresh air.

The writer was once called to attend a case of a ten-months-old infant ill with catarrhal pneumonia, and apparently in the last stages of the disease. Its face and lips were livid, its temperature 104° F., and its respirations quick and shallow. The weight of bedclothing over the patient thoroughly prevented all heat elimination by the skin, while the atmosphere of the sick-room was close and loaded with the foul gases of a base-burner stove with partially closed dampers, and two turned-down kerosene lamps. Every door and window was closed tight and covered with quilts and blankets to shut

out the fresh air. The little one was being suffocated, while its chances for life were still further diminished by the gathering into this close room of several neighbor women and all the immediate family.

The proposition to open wide all the stove draughts, the door, and a window, and to expel from the sick-room all except some one to care for the patient, was received with an expression of horror by all but the father, who merely remarked that as the patient was struck with death, a little cold air would do no harm. The fresh-air treatment soon began to tell. The patient breathed more easily: the blueness of cheeks and lips grew less pronounced, and from a muttering delirium it went to sleep and rested quietly for an hour of more. During this time a tepid bath was prepared, a fresh bed was made ready, and the patient, after being put into the bath and rescued from all the foul veneer of oil and hardened flaxseed poultices, was dried and put into a fresh nightrobe, and laid on a fresh, clean bed. The temperature was now 1021/2°, and although the case was very critical for several days, the patient finally recovered. The chief remedial agent, and the one which saved the baby's life, was fresh air.

The common method of treatment for a cold on the lungs, for sore throat, or any other respiratory disorder where breathing is difficult, is to cover the skin with a coat of some ill-smelling, rancid grease, to saturate a cloth with the same, and bind it over the chest. A bath is regarded as dangerous as an open window; it is thought so conducive to colds, when it is the foulness of the surroundings that favors infection and lowers the body's vital resistance.

The next most common cause of bronchial and other disorders is error in diet. Often the writer has left a little patient doing well, after a severe attack of some infectious disorder, to be called in a few days to find it dangerously ill from an attack of catarrhal pneumonia or bronchitis. Invariably the onset of the disorder was found to date from an improper meal which brought on an attack of acute indigestion and intestinal sepsis.

The patient should be kept on an aseptic diet of well-cooked, dextrinized grains and fresh fruit juices, having gradually added to it a moderate amount of fresh eggs, cream, and milk, for several weeks after the fever subsides, if the patient is over a year old; if under six months it should be given mother's milk in moderate amounts, at least not more than onehalf its meal when in health. If the baby is bottle fed, its food must be modified and restricted in quantity until the digestive organs recover their tone and are able to take care of more hearty food.

Next comes protection from cold and dampness. Do not let the little patient get chilled or its clothing or feet become wet. Let it get out of doors, but protect it well by proper clothing. If it has been treated by being carried out of doors through the course of the disease, it may still spend a part of its time in bed outside during convalescence, and when it begins to sit up, it may be wrapped up in an easy chair. Then it can soon begin to take short walks on the veranda when the sun is warm at midday, while a daily morning cool bath and a warm evening bath will keep the skin clean and functionally active.

A heating compress worn part of the day while in bed will promote absorption of the exudates, and help clear up the lung cells. Free drinking of water stimulates the functions of liver and kidneys, and favors elimination of the disease germs and toxines.

Laughing Matters

The Lady—My husband is particularly liable to seasickness, captain. Could you tell him what to do in case of an attack?

The Captain-'Taint necessary, mum. He'll do it.-Judge.

Too CostLy.-The Doctor-Now, Mr. Isaacstein, tell me all your symptoms.

Mr. Isaacstein-I couldn't afford dot, doctor.-The Circle.

An English tourist traveling in the north of *Scotland, far away from anywhere, exclaimed to one of the natives: "Why, what do you do when any of you are ill? You can never get a doctor."

"Nae, sir," replied Sandy. "We've just to dee a natural death."-Selected.

A man in a small western town bought a quart of milk, and on arriving home found it was adulterated with water. The next day he posted bills in different sections of the town reading:

"I bought a quart of milk yesterday which I found to be adulterated. If the scoundrel will bring me another quart I'll not denounce him."

• The next day he found three quart cans on his doorstep. There were three dairymen in the town.—Judge's Library.

Jones says he thought his gas-meter had gastrick fever, but now believes it to be affected with galloping consumption.—*Observer*.

COMPLICATED SYMPTOMS .- "Well, Patrick," asked the doctor, "how do you feel today?"

"Och, docthor, dear, I enjoy very poor health, intirely. The rheumatics are very distressin', indade; when I go to slape I lay awake all night, an' my toes is swelled as big as a goose hen's egg; so when I stand up I fall down immajit."—Selected.

"So poor Bill is gone, has he? How did he die?"

"Three tons of cement fell on his chest."

"Poor feller! He was always weak there." -Harper's Weekly. An effeminate young man daintily placed two cents on a drug store counter and asked the clerk for a stamp. The clerk tore one off and slid it over to him. The young man drew an envelope from his pocket.

"Would you mind licking it for me and placing it on here?" he lisped.

"Sure," said the clerk, as he started to stamp the letter.

"Oh, stay!" cautioned the young man in great alarm. "Not that way, I beg of you. Kindly place the stamp with the top toward the outer edge of the envelope."

"Sure," said the obliging clerk. "But what that for?"

"Why, you see," confided the youth blushingly, "I'm a student in the Cosmopolitan Correspondence School, and that's our college yell."—*Everybody's*.

Maggie—Just think of the money some folks spends on medicine an' things to make 'em well.

Mickey—An' just think of the money some folks spends on suppers an' other things to make 'em sick.—Woman's Home Companian.

"Yes," said Cassidy, "the poor lad's gettin' along purty well."

"But," said Casey, "I thought ye said he was mortally injured?"

"So he is, but his hurts ain't quite as mortal as they thought at first."—Philadelphia Press.

She had called to consult a fashionable physician who was famous for his way-up prices.

"Pardon me, doctor," she began, "but do you-er-take anything off for cash?"

"Certainly, madam," replied the M. D. "What would you like taken off—a hand or a foot?"—Selected.

A little girl who was having her hair combed noticed that it gave forth crackles and sparks, and asked her mother the reason.

"There's electricity in your hair, darling." With awe in her voice the child replied:

"Oh, mother, aren't we wonderfully made? I have 'lectricity in my hair, and grandma has gas in her stomach."—Selected.

EDITORIAL

The New Training Diet

THAT a non-flesh diet is conducive to endurance has been long believed by those who have tried the experiment of living for a few years on a diet that excludes the flesh of animals. The reports of travelers of the running exploits of rice-eating Hindu messengers, the fig- and barley-fed porters of Smyrna, the riceand bean-eating jinrikisha pushers of Japan, and of the wonderful endurance of certain banana-eating tribes of Mexico and South America; and the well-known fact that the animals most capable of prolonged effort are of the herbivorous or graminivorous class rather than the carnivorous,-these and other facts of like import have gradually impressed themselves upon the minds of thinking men, and especially upon students of nutrition.

The feats of vegetarian athletes in tests of endurance, and especially the test experiments of Fletcher and Fisher, have finally placed the question upon such a footing that it can no longer be ignored, and the leading question which is now being considered by investigators in the physiology of nutrition is the subject of proteid metabolism and the proteid ration.

The elaborate experiments of Chittenden and Mendel on men, supplemented by observations on dogs, showed clearly the advantage of a low proteid ration, but did not specifically show any superiority of vegetable over animal proteid. Perhaps this point remains still to be elucidated by further experiments. Meateaters must of necessity eat an excess of proteid, since meat is a high proteid food, and vegetable foods contain an ample proportion of this food principle. It is not yet scientifically settled whether meat is chiefly injurious because it gives to the ration an excess of proteid, or for some other reason; but this question can be settled, and doubtless will be in the near future, by conclusive experiments.

The fact that a non-flesh diet is conducive to endurance is now so well established, however, that several of the most celebrated trainers of 642

athletes have practically adopted the fleshless diet personally and are willing to make the experiment of training men for the most severe tests of strength and endurance on a diet from which flesh foods are wholly excluded. Within a few months we shall see the matter tested out on the athletic field in competitions between athletic teams trained on the old diet of flesh and high proteid, and those trained * on the new low proteid, fleshless regimen. The result will be awaited with much interest. A convinced disciple of the natural dietary will feel no anxiety respecting the issue of this practical test, provided, of course, other conditions aside from the diet are equal or nearly so

The flesh-cater is necessarily crippled when called upon to undergo an endurance test for the reason that he is in a state of chronic intoxication. Fatigue or exhaustion is the result of the accumulation of paralyzing poisons in the blood and tissues. The brain is weary and ceases to think clearly and well when the poisons which result from work are accumulated to such an extent that the brain cells are paralyzed by them.

There are other poisons which produce a similar effect. Horsely, the famous brain surgeon, showed many years ago that meat extracts, when applied to brain tissue, paralyze it at once. Heavy meat-eaters are always sluggish for this reason.

The habitual meat-eater is thus always in a condition bordering on fatigue or exhaustion, and a much shorter time is required for the accumulation within his tissues of sufficient fatigue poisons to induce the condition of tissue poisoning commonly known as fatigue. The same would doubtless be true to a large degree if the excess of proteid were of vegetable origin, for the worst poisons are doubtless those derived from the putrefactions taking place in the alimentary canal, which are supported by the remnants of proteins which have escaped digestion and absorption. There

can be no putrefactions without protein, no more than there can be fire without fuel. Protein is food of putrefactive micro-organisms, just as carbohydrates are the food of acidforming organisms. Vegetable foodstuffs, however, not only contain no excess of protein, but the vegetable variety of protein is far less prone to go through a putrefactive process than is animal protein, as shown by Combe and many other experimenters. The fleshabstaining athletes will have an excellent chance of defeating their meat-eating antagonists, for their tissues will be free from the paralyzing poisons which result from putrefactions in the colon.

WHY THE DOG BOLTS FOOD

The Difference between Digestive Apparatus of Carnivorous and that of Granivorous Animals.

Nor long ago an article which was widely circulated by the newspaper press called attention to the fact that dogs masticate their food very little, bolting their meat as rapidly as possible. It is, indeed, surprising to note the rapidity with which most carnivorous animals when hungry dispose of masses of meat of considerable size. They seem to suffer no inconvenience from their neglect to masticate.

With grain-eating animals, however, the case is far different. Any one who has ever watched a horse or an ox eating corn or oats must have been impressed by the comparative slowness with which the food is taken and

the thoroughness with which it is ground up. There is a reason for this difference, based upon the difference in the character of the foodstuffs which constitute the dietaries of the two classes of animals. Meat consists practically of a single food element-raw protein-which is completely soluble in the gastric juice. The comparatively small amount of fat present is liquefied by the heat of the body. Thus the whole is reduced to liquid form, which permits its easy passage through the pylorus. Grains and most other vegetable foods-a morsel of bread, for example-consist of two elements, starch and protein. The saliva dissolves the starch, the gastric juice the protein; but neither of these fluids can dissolve a morsel of bread. The co-operation of the two is required. The starch is present in largest amount, and hence its digestion is naturally required first. The saliva converts the insoluble starch into soluble dextrin and sugar, This leaves the protein in the form of thin films and filaments in condition to be readily acted upon by the gastric juice. If both the saliva and the gastric juice were capable of acting together in a mixture of the two fluids, solid masses might be easily reduced in the stomach by the simultaneous digestion of the constituent elements upon the surface, gradually reducing the mass, as a lump of ice dissolves in warm water. But the saliva and the gastric juice cannot act together. The saliva is an alkaline fluid, while the gastric juice is an acid fluid. So the effect of each fluid is to neutralize the other. The gastric juice, on account of its high acidity, not only hinders but quickly stops the action of the saliva within a comparatively short time after the food enters the stomach. It is evident, then, that the digestive work of the saliva upon the food must be done first. Fortunately, the diastatic ferment of the saliva which changes starch into dextrin or sugar acts with very great rapidity when brought into intimate contact with the individual particles of food. In order, then, for the saliva to do its work upon the bulky starch constituent of the cereal and other farinaceous foodstuffs, it is necessary for the food to enter the stomach in a well-disintegrated state. If food has been thoroughly chewed so that a sufficient amount of saliva has been mixed with it, the process of starch digestion is quickly completed and the remaining element-protein-is thus in condition to be readily acted upon by the gastric juice.

It is thus apparent that while bolting may be perfectly natural and harmless in a dog, it is equally unnatural and mischievous in human beings. It is true that if one should confine himself to a diet of meat, he might bolt his dinner as does the dog without very serious injury, at least, so long as his stomach continued to secrete an ample amount of gastric juice. A feeble stomach, however, is not capable of digesting raw connective tissue, and consequently meat swallowed in lumps into such a stomach must be retained for an excessive length of time, and the result will probably be the setting up of putrefactive processes in the stomach, in consequence of which many grave troubles will arise, such as "biliousness." acute gastritis, chronic gastric catarrh, ulcer of the stomach, infection of the gall-ducts and gall-bladder, giving rise to jaundice and gallstones, and attacks of gastralgia, also intestinal catarrh, enteritis, gastric and intestinal autointoxication, appendicitis, and colitis, together with many other difficulties which are the outgrowth of intestinal autointoxication.

Bolting is a method of eating that is natural and proper in animals which are naturally adapted to a meat diet. Man does not belong to this class. His natural diet of fruits and farinaceous seeds and vegetables requires thorough mastication as a condition essential for digestion.

BILIOUSNESS FROM FATS

In Other Words, Intestinal Autointoxication is Caused by Too Free Use of Foods Rich in Grease

THAT fried pork, sausage, greasy griddle cakes, cakes, pies, sauces, and other comestibles rich in fat, are productive of "biliousness," whatever may be meant by the term, is a fact familiar to everybody. But why do fats cause biliousness? This is a question that has puzzled the doctor ten thousand times and more, for until the comparatively recent researches of Pawlow no one could tell what possible relation exists between fats and biliousness.

Pawlow, in his remarkable and extraordinarily interesting observations upon dogs, demonstrated that fats diminish to a notable extent the secretion of gastric juice. The important bearing of this fact will be seen when it is remembered that Bouchard demonstrated years ago that biliousness is nothing more nor less than intestinal autointoxication, that is, poisoning of the whole body by noxious substances, products of putrefaction from the intestines, especially from the colon.

It has been well established that the gastric juice is a powerful disinfectant or germicide. One of its chief functions is to render the food mass sterile while in the stomach, so that dangerous poison-forming germs will be prevented from entering the intestine. When the gastric juice fails to do its work, the germs of putrefaction are permitted to live and grow in the stomach. The intestine becomes infected, poisons are formed and absorbed, and autointoxication or "biliousness" is the result.

There are thousands who live in a state of chronic biliousness on account of the toofree indulgence in foods rich in fats. There

are those who have acquired an appetite for fats in large amounts, just as there are "candy eaters" and "meat eaters." In some cases, no harm whatever seems to follow, the reason being that there is an abnormally abundant secretion of gastric acid, making the effect of the excess of fat to be only to prevent the excessive acid secretion. Thus no harm is done. Indeed, in such cases, the patient may find actual advantage from the free use of fats. a practice often to be recommended in cases of so-called hyperhydrochloria. In nearly half the cases of chronic dyspepsia, slow digestion or hypohydrochloria exists, and this excess of fats is consequently in the highest degree ininrious.

MEAT DIET AND STERILITY

Flesh Foods Develop Sterility in Rats, * No Changes Occurring in Those Vegetable Fed

ONE of the hackneyed arguments against the antitoxic or non-flesh dietary is that it might lessen the fertility of the race. Although no evidence whatever has been produced in support of this theory, yet it has been brought forward many times during the last thirty years, especially by a certain class of pseudo-scientists who think their chief function in the world to be to find scientific backing for the proposition that whatever is is right. These men are the versatile apologists for tea and coffee, alcohol, and other popular poisons. One day they insist that these drugs aid digestion, and hence that it is necessary to assist the enfeebled modern stomach to supply the overworked modern brain in its strenuous struggle; the next day, confronted by new and conclusive experimental evidence that the poisons named are highly detrimental to the digestive process, these valiant champions of popular error make the discovery that the modern appetite for tea, coffee, alcohol, and allied poisons is an instinctive demand for a slowing down of the nutritive processes, made too active and vigorous by the refinements of modern cookery, thus averting the terrible dangers pictured by William Roberts as likely to arise from an undue acceleration of nutrition.

It will be interesting to see what use these philosophers will make of the facts recently obtained by Campbell in dietetic experiments upon rats. According to the British Medical Journal of May 27, 1907, this investigator has found that a meat diet produces in rats interference with the development of the uterus and sterility. When the animals were fed on bread soaked in milk, no such changes occurred. Campbell calls attention to the enormous increase in the amount of flesh food consumed in England within the last fifty years, and associates this fact with the diminished birth rate which, as he points out, is specially marked in the "better-off classes, whose means permit of an unrestricted use of the more expensive meat diet."

It is at least fair to say that these experiments by Campbell show the absurdity of the old argument that flesh-eating is necessary to maintain the reproductive activity of the race.

PHYSIQUE OF THE BULGARIANS

A Nation of Non-Flesh Eaters Possesses the Largest Per Cent of Centenarians among Its People

BULGARIA possesses by far the largest proportion of centenarians of any nation, having, according to a recent report, not less than 2,500 persons upward of 100 years of age. Bulgaria has been called the "Japan of Europe," a title that is considered appropriate because of the marvelous feats of courage, endurance, and prowess which characterize the Bulgarians in common with the Japanese. The *British Medical Journal* gives the following description of the physique and habits of this interesting people:

"The Bulgarian peasants eat moderately and drink little alcohol; their food consists mainly of maize flour, coarse brown bread, and milk curds. The women are fine and strapping, tall, and well set up, with masses of hair generally worn in two plaits. Their features are regular and striking, and their bronzed, sunburnt skin gives them the appearance of perfect health. They are fond of bathing, and keep their houses clean and neat. On Sundays on every village green is danced the choro to the music of the bagpipe and drum. The lads and girls dance for hours, doing the steps with skill and spirit, thus proving and improving their physical condition. Quite remarkable is their carriage, and it is no exaggeration to say that a slouching man or a woman is never seen. The system of peasant proprietorship encourages every farmer to make the best use of his land, and the women help willingly with work in the fields, harvesting, and other outdoor labor. During the winter they spin and knit. They look after their homes and children well, and infants are, as a rule, to which there are few exceptions, brought up at the breast. Nevertheless, infant mortality is high, especially among the peasant class, owing to various causes. In 1893 it was recorded that there were 3,372 persons of 100 years old and upward."

It certainly is fair to attribute the splendid characteristics of the Bulgarians, as in the case of the Japanese, to their simple and wholesome dietary. Attention is especially called to the fact that in the above enumeration of the articles which constitute the dietary of the Bulgarian people, meat and flesh foods of all sorts are omitted. The average Bulgarian is practically a vegetarian—a fact which doubtless explains more than any other the great longevity and the absence of infective disorders of the intestine.

THE WHOLE HOG OR NONE

Instead of Eating the Pig That Ate the Corn, Eat the Corn First Hand, and Avoid Inevitable Poisons

THE apologists for a flesh diet constantly urge the ancient but baseless argument that vegetables are crude products, while flesh foods are refined and improved nutrients, readymade tissues so closely resembling human tissues that they are more easily and perfectly assimilable than in the vegetable state, so that corn is improved by first feeding to a hog, then eating the hog.

A most important but very evident fact, which seems to have quite escaped the promulgators of this theory, is this: Corn contains all the elements necessary for complete nutrition, viz., protein, fats, carbohydrates, and last, but not least, the salts, while pork does not. The proteids nourish the muscles, the fats and carbohydrates supply heat and energy and build fat, and the salts build up the bones. Corn thus feeds the whole hog, and in so doing is divided up. The oil, gluten, and starch of the corn is represented by the lard and lean meat of the dead hog, while the lime and other salts are found in the bones almost exclusively. It is evident, then, that in eating pork, ham, sausage, bacon, etc., a man will fail to secure the material needed for building up his own bones unless he eats the bones of the pig as well as the flesh. In other words, he must eat the whole hog, or none.

That this is not a mere conjecture was well shown by the experiments of Prof. Sherman, of Columbia University, New York. The learned professor showed that lean meat contains almost no lime. The same is true of cane-sugar. The large use of these two foods has given rise to an extensive, almost universal, lime starvation, the results of which are to be readily seen in the premature decay of the teeth and the growing frequency of rachitis and other bone diseases.

Prof. Sherman declares that fully half the people of the United States are suffering from lime starvation, chiefly as the result of the large use of meat.

So it is evident that the only way to get back the corn fed to the ox or the hog is to eat the whole animal, bone as well as flesh, and, as this is impossible, it is equally evident that the popular argument referred to is wholly without foundation and is a dangerous error.

NANNY GOAT VERSUS COW

Goat's Milk Inferior to Cow's Milk, Owing to Large Amount of Indigestible Casein

THAT cow's milk is by no means an altogether wholesome food, that it is, in fact, poorly adapted to use as food for adults, much less for infants, that it is even a dangerous source of tubercular infection, are facts which, though long known to experts, are only now coming to be practically and efficiently recognized.

Milk inspectors are everywhere looking into the milk supplies of cities and towns. Sanitariums and medical men are suggesting various remedies, some of which are more interesting than feasible. One of the most recent suggestions comes from Dr. Broadbent, of England. This eminent medical man suggests that the nanny goat be substituted for the cow as a source of milk supply. The points of superiority claimed for the nanny goat over the cow are chiefly these;

The nanny goat will not eat filth of any sort. She will eat almost any old object that is clean, from a newspaper to sheets and pillowslips, or from wood shavings to turnips, and will make denser and richer milk from this heterogeneous bill of fare, with no care at all, than the cow makes from more fancy food and the most expert coaching and coddling.

We are told that the United States Department of Agriculture has actually imported nearly a hundred goats of a certain species for the purpose of experimentation, and soon we may expect to be informed that the timehonored family wet-nurse, "old brindle," is to be ousted from her place, and Mrs. Nanny Goat installed.

We are assured that the goat's milk is cleaner, richer, and freer from bacteria than the cow's, and that the goat is immune against tuberculosis, so that her substitution for the cow will prove one of the most effective weapons for fighting this devastating disease.

These inducements are very alluring, indeed, but there are many prejudices to be overcome before Mrs. Cow can be actually deposed from her proud and honorable position in so-* ciety in favor of Madam Nanny Goat. Mr. He-Goat is a very unpleasant fellow to have about. He has a very strong breath, and his manners are exceedingly bad.

A physiological objection is the fact that goat's milk is much less digestible, even, than cow's milk, and this on account of the very richness for which it is commended. Cow's milk contains five times as much indigestible casein as does human milk, and only half as much of the digestible lact-albumen. Goat's milk contains three times as much of the indigestible casein as does human milk, which makes it twice as indigestible as cow's milk. Moreover, the extra amount of fat which the milk of the goat contains adds to its indigestibility, by lessening the gastric secretion, and so leading to indigestion and intestinal autointoxication.

On the whole, goat's milk can hardly be considered an improvement upon the milk of cows. If a change is to be made, it ought to be in favor of that humble and much abused animal, the donkey of the Orient, the "burro" of the southwest. Chemical analyses of asses' milk show that it approaches more nearly to human milk in its composition than does the milk of any other animal.

But this is not the proper method of remedying the evil. We must learn to depend less upon the animal kingdom for our food supplies. And after all, there is no form of animal food, with the exception of mother's milk, which is so well adapted to human sustenance as are the best products of the vegetable kingdom.



CORRESPONDENCE SCHOOL OF HEALTH

Correspondents should bear in mind that no questions can be answered in these columns sooner than one month. Questions received in May, for instance, cannot be answered sooner than June, and if received late in the month, may have to wait over two issues.

10,609. Deficiency of Biliary Secretion. -J. S. W., Texas: I. "What is the cause of deficiency in the quantity of biliary secretion?"

Ans .- A deficiency in the quantity of biliary secretion is frequently the result of autotoxemia. The liver is the filter of the body. Poisons which are ingested with the food, or which are formed in the intestinal canal as the result of fermentations and putrefactions, are afterward absorbed into the portal system and must pass through the liver before they can get into the general circulation. One of the chief functions of the liver is to remove these poisons from the blood and to oxidize or burn them up. When the liver is overtaxed by having an unusually large quantity of these poisons to deal with, the result is an alteration of its function, and frequently a deficiency in biliary secretion follows. The liver is most commonly overtaxed by errors in diet,-the use of an excess of proteids, tea, coffee, alcohol, tobacco, condiments, vinegar, and especially by fermentations and putrefactions which take place in the intestines. These putrefactive processes result in the formation of powerful poisons which are absorbed into the blood, thus throwing an extra burden on the liver, reducing its functional activity.

2. "What is the result?"

Ans .- The tissues not only of the liver but of the whole body are damaged, and poisons accumulate in the blood in consequence, thus giving rise to a condition known as biliousness, which is the foundation of the majority of chronic diseases.

3. "Please give remedy."

Ans .- The adoption of a natural life. This includes a dietary free from substances which can irritate the liver. Meat of all kinds, including fish, flesh, and fowl; tea, coffee, vinegar, condiments, pepper, peppersauce, are all to be strictly avoided. All food should be thoroughly masticated, pains being taken to reject and return to the plate every morsel of food which cannot be reduced to a liquid in the mouth before swallowing. The use of cane-sugar is detrimental, as it predisposes to fermentative processes in the intestine. The diet should consist principally of well-cooked cereals, such as toasted corn flakes, toasted rice flakes, granose biscuit, browned rice, granola, breakfast toast, gluten preparations. malted cereals, such as granuto, meltose or malt honey, malted nuts, purees, broths, and soups of beans, peas, lentils, vegetables, protose, tomato, potato, and fruit; potato and fruit salads, and various fresh fruits and fruit juices. Sterilized butter, in small amount, may be added to the dietary. Fats, however, in large quantity encourage intestinal putrefactive processes. An abundance of fresh air should be secured. Live out of doors as much as possible, both night and day. Take a cold bath every morning-a cold sponge or a short cold shower bath, followed by thorough drying, rubbing the skin with the dry hands until 647

a sensation of warmth and well-being is experienced.

Weariness in the Legs .- J. B., 10,610. Pennsylvania:

"Since an accident last September, in which an automobile struck me unconscious, I have been unable to walk more than four to six miles a day without my legs becoming very tired from above downward, even to the soles of my feet. During the winter and spring I improved a little, but during the warm weather have been somewhat worse. Before accident was healthy and strong, an abstainer from all liquors, meats, and condiments. Please advise with regard to a remedy.

Ans .- You should spend a few weeks in a well-equipped sanitarium. Hot and cold compresses to the spine ought to be helpful to you. A woolen cloth, four to six thicknesses, about six inches wide and long enough to reach the entire length of the spine, should be wrung quite dry out of water as hot as can be borne and applied to the spine, and covered with a dry flannel compress. This should be left in place four or five minutes, then quickly removed, and a towel, previously made ready, should be wrung out of ice water and applied over the area under treatment while the hot application is being renewed. This should be repeated three or four times, the duration of the applications being about five minutes each for the hot and one minute for the cold. In concluding the last application the cold rubbing may with benefit be extended to the whole body. Thoroughly dry the parts and rub with the dry hand until the skin is warm and glowing. It would be well to secure the services of an experienced masseur. Electrical applications ought to be beneficial. You should consult a competent physician for the application of this measure.

10,611. Clearing of the Throat.-M. D. F.,

Michigan: I. "I have a desire to clear my throat dozens of times a day, particularly in winter when in the open air. Every few days as I clear my throat something drops down from my head to my mouth that looks like the top of a small sore, with underside a gray color. What is my trouble, and its remedy?"

Ans .- You are probably suffering from postnasal catarrh, and require the services of a nose specialist. There may be some pathological condition in the nasal tract which can be easily remedied by an experienced practitioner. Your general health needs building up. Live out of doors as much as possible. Take a cold bath every morning on rising, and a sweating bath at least twice a week at night just before retiring. You are probably suf-

fering more or less from the absorption of poisons as the result of decomposition processes in the intestinal tract. Few cases of nasal catarrh are able to secure permanent relief until local treatment is supplemented by attention to the general health, and particularly to the dietary. You should drink freely of water, at least three or four pints a day, and adopt a diet such as is outlined in the answer to question No. 10,612. Sleep out of doors, if possible; if not, see that the windows of your bedroom are wide open night and day.

"Does a breakfast of cooked or uncooked fruit, a dish of oatmeal or some flake food, Sanitarium wholewheat bread, a cup of cereal coffee with a cookie or fried cake have a ten-dency to produce skin diseases?"

Ans .- Not necessarily. The use of oatmeal as ordinarily prepared or fried cakes is not to be recommended.

10,612. Eczema.-M. V., Minnesota:

1. "For over 12 years had eczema on my legs from knees to ankles without finding a remedy until three months ago started experimenting with a diet of raw foods once a day and cooked once a day. The eczema has now left me. Do you consider the cure due to raw food diet?"

Ans .- Not necessarily.

2. "Would raw foods prove injurious to my system if I used them indefinitely?

Ans .- No, not if you use the right things. Raw grains cannot be digested in the human alimentary canal to any great extent. Half an ounce of raw starch is probably all that a man can digest in one day, and when a greater quantity is taken it passes through the alimentary canal undigested. Certain foods are adapted to digestion in the raw state. Eggs, for example, are more easily digested raw than cooked. Milk preparations are also foods which are ready for immediate use in their natural state. Unfortunately, however, many persons experience difficulty in the use of Fruits and nuts are "cooked in the milk. sun," The human race has so long been accustomed to cooked cereals that their use seems to be almost necessary for complete nutrition by many persons.

10,613. Choking.—A. E. W., Japan: I. "Man aged 47, muscularly built but neu-T. rasthenic and sufferer from nervous dyspepsia, has choking fits at night when sleeping, which compel him to leap out of bed; heavy beating of heart afterward. Abstemious. though not a teetotaler; smoke in moderation, October last had attack of malarial fever for ten days. At end of December was attacked by fit of partial deafness in left ear, accom-

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panied by constant ringing in that ear only, which has continued. Have had much confusion of brain and want of concentration in work, accompanied by bad memory. What would be the best diet and treatment for my case?"

Ans.—The patient is probably suffering from catarrh of the Eustachian tubes, and possibly of the middle ear. This condition is common in smokers. Stop smoking. Even moderate smoking is harmful. The answer to question No. 10,611 is applicable in this case also.

2. "Is ringing in the ear likely to give rise to apoplexy, or is it merely a nervous symptom?"

Ans.—Ringing in the ear is not likely to give rise to apoplexy, but smoking is. The use of tobacco causes an elevation of blood-pressure, which favors the rupture of the cerebral artery, the cause of apoplexy. Ringing in the ear is a common symptom of catarrh of the middle ear.

3. "Is the ringing in the ear likely to be caused by malarial fever, or the quinine which I took to cure malaria?"

Ans.-The use of quinine sometimes gives rise to congestion and inflammation of the middle ear, especially when the dose is large. Some authorities claim that the congestion produced by this drug always leaves a more or less permanent injury.

 "Are Swedish exercises in the morning good for such a case?" Ans.—Yes.

5. "Is hot water taken night and morning beneficial?"

Ans .- In small quantity, yes.

6. "Should liquids be taken during meal?" Ans.--No.

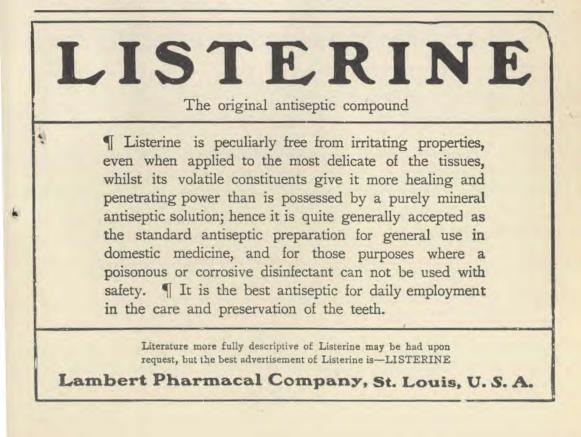
7. "What causes fits of choking at night?"

Ans.—A more detailed description of these spells should be given.

10,614. Inflammation of the Stomach.— T. B., Florida:

I. "What is the proper diet for one suffering from inflammation of the stomach when fresh milk disagrees, and much liquid food gives a feeling of heaviness?"

Ans.—Under the circumstances the use of buttermilk and toasted cereals is preferable to the use of milk. Gruels with a little butter added will perhaps agree better than cream or milk gruels.



2. "Ought one to exercise considerably when exercise is irritating to the stomach?"

Ans.--No. Rest, without sleep, for an hour after each meal is preferable.

3. "What measures are beneficial besides regulating the diet?"

Ans.—Try the application of a hot water bag over the stomach for half an hour after each meal, and the use of an abundance of water between meals, taking pains to avoid drinking within a half hour before and two hours after eating. General tonic treatment the cold bath on rising in the morning, moderate exercise out of doors, and an abundance of fresh air night and day—is also very helpful.

4. "Do the acids of buttermilk and kumyzoon increase irritation when the stomach is inflamed?"

Ans.—Generally the acids of buttermilk and kumyss do not increase the irritation of an inflamed stomach, unless the stomach contents are very strongly acid.

5. "Is complete recovery possible?"

Ans.-Yes.

6. "Is water drinking helpful when water seems to increase irritation?"

Ans.—No, but of course a certain amount of water must be taken. When extreme irritation is present the use of hot water is better than cold.

10,615. Epilepsy.—J. F. M., Pennsylvania: 1. "Please state cause of epilepsy."

Ans.—There are various forms of epilepsy. In the majority of cases the disease is doubtless due to a hereditary predisposition. In one form of epilepsy, known as Jacksonian epilepsy, the cause is usually due to an injury on the head, such as a kick or a fall. When this is the case a cure is sometimes obtained by a surgical operation.

2. "What are the symptoms? I am of a nervous temperament, and have been especially nervous the past spring and summer, with considerable stomach trouble."

Ans.—The symptoms consist of convulsions or fits in which the patient falls, violent jerking of the muscles, frothing at the mouth, biting the tongue, the face at first livid, afterward red and swollen. The attack is generally followed by a disposition to sleep for one or two hours. These are the symptoms which occur in severe cases. In the milder cases there may be simply a slight loss of consciousness for a few seconds, after which the patient resumes whatever occupation he may have been engaged in at the time of the attack. This lighter form of the disease is known as *petit mal*.

3. "Is it curable, and what treatment would you recommend?"

Ans .- While epilepsy is generally considered incurable, there are some cases in which the attacks may be caused to practically disappear by a carefully selected dietary and attention to the general health. In the worst cases there is a congenital defect which is, of course, incurable. Errors of diet have much more to do with producing this disease than is generally supposed. The use of animal food is highly detrimental. Epilepsy in children has been traced to its use. The diet must be plain and simple, consisting almost wholly of fruits, grains, and vegetables. Milk and eggs may be used in moderation. Tea, coffee, alcoholic liquors, tobacco, and similiar bad habits of . diet must be wholly abandoned. Every possible attention should be given to building up the general health by exercise in the open air. regular and sufficient sleep, and attention to all the laws of hygiene. General baths, taken with sufficient frequency to secure thorough cleanliness and activity of the skin, fomentations over the stomach and liver daily, in connection with the warm leg bath, alternate hot and cold applications to the spine, are all helpful measures.

10,616. The Urine,-R. J. S., Minnesota;

I. "What is proper treatment and diet to raise specific gravity of the urine of a child seven years of age, who has had pyelitis, and whose urine has contained albumin, granular 2 and hyaline casts, epithelial cells, but recently and within last four months nothing but epithelial scales? Also has anemia. Is gaining slowly, and has high spirits, but exercise raises pulse to 130-140 beats."

Ans.—It should first be stated that this case does not require any particular treatment to raise the specific gravity of the urine. What is needed is that which will raise the general vital condition of the patient. The condition of the urine will improve with the improvement in general health. This child requires a diet consisting of fruits, well-dextrinized cereals, malted cereals (granuto, meltose, malted nuts), bees' honey, and fruit and cereal dishes, such as fruit toasts, rice with fig sauce, purees of peas, beans, lentils, and potatoes, egg yolks, spinach, gluten preparations, sterilized butter, and cream. The child should be taught to masticate all food thoroughly. It would also

650

be well to employ yogurt. Special pains should be taken to avoid catching cold. The child should take very little exercise until the heart gets stronger. Massage may be administered if the services of a trained masseuse can be secured.

2. "What is 'porte-air'?"

Ans.—The porte-air is a fresh-air tube sold by the Battle Creek Sanitarium, from whom circulars can be obtained.

3. "Is sleeping so as to get open air equal in benefit to passing the winter in a warm climate for my child's disease?"

Ans.—The warm climate is probably better in this particular case, as there will be more sunshine, and it will be more convenient for the child to live the outdoor life.

4. "What is the proper treatment, hygienically and otherwise, for nervous exhaustion?"

Ans.—Nearly all cases of nervous exhaustion are curable, if proper conditions and treatment can be supplied. The majority of cases will recover in time by the simple abandonment of all the causes and careful attention to hygienic measures. When the brain is the chief seat of the disease the patient will generally be benefited by taking a large amount of exercise in

ILE GREEN

the open air. When the spine is the seat of the difficulty, equal attention should be given to securing rest, carefully avoiding overexertion and fatigue. In the latter class of cases the diet should be abundant, nutritious, and strictly antitoxic. The subject of antitoxic diet has been freely discussed in recent numbers of this journal. Frequent tepid sponge baths, alternate hot and cold applications to the spine, fomentations over the liver and stomach are all helpful. Nervous exhaustion is not a disease, but merely a group of symptoms pointing to some diseased state which, in the majority of conditions, is, in the opinion of the writer, autotoxemia, arising from the absorption of poisons produced in the alimentary canal.

10,617. Loss of Hair.-Z. M., South Dakota:

"What is the cause and remedy for loss of hair where one is in good health? My own and children's hair is very thin and falling out."

Ans.—Falling hair is generally due to seborrhea—a diseased condition of the scalp. The scalp should never be overheated. The hair should not be harshly brushed with a stiff

The Hospital

and Sanitariu

It should be the first duty of institutions to make the walls where patients are treated, sanitary and proof against disease germs.

Softone Enamel

gives a non-porous enameled surface to walls of wood, burlap, or plaster that makes them absolutely impervious to atmospheric conditions, and continuous washing with soap and water will not injure or make them grimy. It is a finish that age cannot destroy and it is genuinely artistic. It gives to bare and staring walls a rich, velvety effect with the quiet, restful tones of the water color. Where walls are in fair condition **one coat** of Softone Enamel is usually sufficient. Applied with a brush without rubbing you will get a better and more uniform finish than three coats of ordinary enamel with hours of rubbing.

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brush, and should never he combed with a fine sharp-toothed comb. This is particularly true if dandruff is present. When the hair is very dry a little fine unguent of some kind may be employed. The head should be kept clean by frequent cleansing with warm water, shampooing with the white of egg, followed with thorough rinsing. The following lotion is helpful: Alcohol I ounce, resorcin 20 grains. This should be rubbed into the scalp two or three times a week.

10,618. Tobacco.-L. O. G., Texas:

I. "Is tobacco injurious to the system, and if so, in what way?"

Ans .- Very few users of this noxious weed need to have a description of the effects of a moderate degree of poisoning with tobacco. The giddiness, nausea, and deathly sickness following the first attempt to use it are indubitable evidences of the poisonous character of this drug. In severe cases of poisoning violent vomiting, purging, vertigo, deathly pallor, dilatation of pupils, disturbed heart-action, staggering gait, difficult breathing, and in extreme cases unconsciousness, are commonly observed. These symptoms are produced by a very small quantity of the drug in persons not accustomed to its use. One reason why so few persons are reputed to die of nicotine poisoning is the wonderful faculty the system possesses of accommodating itself to circumstances. In this way the worst poisons may by degrees be tolerated until enormous doses can be taken without immediate fatal results. In the writer's opinion, the majority of tobacco users do die of tobacco poisoning. A man who dies five or ten years sooner than he should as a consequence of tobacco using, is killed by the poison just as truly as though he died instantly from an overdose.

2. "Are its effects transmitted to the offspring?'

Ans .- There is probably no vice or habit to which men are addicted, the results of which are more certainly transmitted to posterity than are those of tobacco using. A vigorous man may use tobacco all his life, and be able to convince himself all the time that he is receiving no injury; but the children of that man, who should inherit from him a vigorous constitution and high health, in most instances are robbed of their rightful patrimony, and enter upon life with a weaker organism, with a system predisposed to disease and destined to premature decay.

10,619. Coated Tongue and Constipa-tion.-J. A. M., Nebraska:

"Would you recommend the use of lem-I. ons for one suffering from coated tongue and constipation?"

Ans .- Yes, lemons are good, but all kinds of fruit may be used. The following dietary is best adapted to these cases: Fresh fruits, fruit juices, fruit jellies, especially preparations of prunes, figs, and raisins; granose, toasted wheat flakes, toasted corn flakes, granola, granuto, meltose, bromose, malted nuts, baked potatoes, baked sweet potatoes, peas, beans, and lentil puree, tomatoes, butter (sterilized), olive oil, nut oils, nuts-carefully chewed, and vegetables, such as asparagus, cauliflower, spinach, carrots, beet greens, and vegetable oysters.

2. "Could the daily use of them do harm?" Ans.-No.

3. "What climate is best suited to one with poor circulation, weak heart, and some throat

Ans .- A mild, cold climate, avoiding extreme exposures, is best suited to one suffering with the symptoms named.

10,620. Diet for Inflammation of the Bladder .- T. S. S., California

"Am 49 years of age, have lived, generally, a close office life, with remarkable good health until three years ago stomach trouble assailed me. Your advice followed removed that, but now occasionally, especially during damp, foggy weather, I have pains that I believe due to inflammation of the bladder. Under same circumstances I have pains from hemorrhoids (neither bleeding nor protruding), foods should I eat and what avoid?" What

Ans .- The pains you describe are probably due to slight chilling of the skin. The best remedy would be a warm sitz bath at night and dry friction of the skin with the hand or a coarse towel, on rising in the morning. You should adopt a laxative dictary, as outlined in the answer to the preceding question. Use an abundance of fruits, as this tends to alkalinize the urine. Avoid meats of all kinds, and especially pepper, peppersauce, tea, coffee, alcohol, tobacco, vinegar, spices, and all indigestible food substances.

10,621. Koumis.—F. K., Oregon: r. "Can Koumis be made without the use of yeast or chemicals?"

Ans .- No.

2. "Can the fermentation be produced by the action of the lactic acid on the cane-sugar which is added?"

Ans.-No.

3. "Do you consider Koumis, made with yeast, a wholesome food?"

Ans .- No. Ordinary buttermilk would be better than koumis. Better still is yoghourt. This substance is a milk preparation largely used in Bulgaria and lately studied by Metchnikoff of the Pasteur Institute of Paris. Metchnikoff found that yoghourt contains a remarkable lactic-acid-forming ferment, far superior to the ferment of koumis, kefir, and sour milk. Yoghourt cannot be easily obtained in this country, but it is possible to obtain the same germ in concentrated form in capsules, under the name of "Yogurt." The advertisement of this product appears among the advertising pages of this number. This germ effects a cure by establishing itself in the intestinal tract and driving out the poison-forming "wild bacteria" which are the cause of autointoxication.



LITERARY NOTES

A VEGETARIAN VOLUPTUARY

GEORGE BERNARD SHAW, in an interview reported by a representative of Good House*keeping*, strikes a telling blow at the im-pression that has more or less currency: that the vegetarian in abstaining from animal foods is laboring along under the burden of a sort of self-denying ordinance that makes him thin and testy and longful of the flesh-pots of Egypt if only he had the courage to admit it. When asked, "Do you find abstinence from meat and spirits difficult?" he replied :-

"Abstinence! I don't abstain in that sense. I am not an ascetic; I am a voluptuary. You may as well ask me do I find it difficult to

abstain from drinking kerosene oil-though I should prefer that to brandy, by the way. I don't like meat or spirits. I could never have eaten meat in all my life had I been left to myself as a child. It was thought good for me because it was nasty; and the things I did like were thought unwholesome because they were nice. I fell back on bread and butter as much as I could; my parents very sensibly left a supply of that always about. My father had only one conviction on the subject, which was, that 'a child should never be hungry."

The famous author went on to demolish the idea that a vegetarian diet is conducive to irritability and testiness of temper:

"One thing is certain: vegetarian diet helps people to keep their tempers instead of wasting them in useless anger and spluttering. It saves and conserves temper; and temper is life. Most people haven't half temper enough, but the little they have they waste because they can't keep it on a diet of stout and oysters, steak and porter." Smoking he attacked in the true Shavian manner: "Filthy habit! Put your nose into

a smoking car in the morning before it has

been aired-are they ever aired?-and then smoke if you can, without blushing. The crushing proof that life in the middle ages was decenter and cleaner than it is now is not so much that they produced such wholesomely beautiful things, and really liked them, but that they didn't smoke. Smoking came in with capitalism. Capitalism set up a demand for drugs to help its victims to bear the pain of life, and for stupefying and silly occupation to wile away its boredom. Tobacco and tea are just the things for it. Get rid of capital-ism and you will soon get rid of both these things. Men smoke when they have nothing better to do. I know a man who knits instead; and it answers perfectly; women have only taken to smoking since knitting has ceased to take up their spare time. I know a chemist who cannot smoke while he is doing his fine research work, for then he needs a particularly steady hand. But when he wants to idle, he smokes cigarettes. Most men do nothing that needs a steady hand. If they did, they would soon note the effect of smoking."

FIGHTING TUBERCULOSIS

PROBABLY no living physician has given to the question of tuberculosis, as regards its history, etiology, and prevention, so exhaustive a study as has Dr. S. A. Knopf. This fact was recognized by the committee appointed by the International Congress to Combat Tuberculosis as a Disease of the Masses, which convened at Berlin, May 24-27, 1899, in according to Dr. Knopf a prize of four thousand marks for the best essay upon the subject of tuberculosis as a disease of the people, and how to combat it. The profession of this country have reason to be proud that an American physician was able so far to excel all other competitors, among whom were many eminent practitioners and

sauitarians, as to be considered worthy of the prize.

Dr. Knopf is doing so much for the promotion of the public welfare, by delivering lectures before various associations and conventions in different parts of the country, and by various other means combating tuberculosis, that he may well be considered chief in the anti-tuberculosis campaign. This valuable pamphlet ought to be placed in the hands of every intelligent person in the United States. It is to be hoped that each of our readers who has not already seen the work will obtain a copy, and after reading, pass it around among his friends.

"Tuberculosis as a Disease of the Masses, and How to Combat It." Fourth issue, revised and illustrated, with supplement on home and school bygiene, installation of the sanatorium treatment at home, and a historical review of the anti-tuberculosis movement in the United States. Prize essay, by S. A. Knopf, M. D. New York City. Published by F. P. Flori, 514 East Twenty-second street, New York City. Paper bound, twenty-five cents; cloth, fifty cents. Also for sale by "Charities and Commons," 105 East Twentysecond street, New York City.

McCLURE'S

McClure's for October comes out with an increase of sixteen pages of reading matter, and of five cents in price. The cost of the splendid service that the magazine, is giving the public is undoubtedly heavy, and justifies the raise of price to 15 cents. Any magazine could point with pride to a past that had brought out works of such power and influence as Ida Tarbell's history of Standard Oil, and life of Abraham Lincoln; and given to American readers Ian MacLaren's Life of the Master. *McClurc's*, however, does not live upon its past, but promises us still greater things for the future.

SOCIAL PURITY CONGRESS

ONE of the most important conventions of the year will be the National Purity Congress, held under the auspices of the National Purity Federation in Battle Creek, Mich., October 31-November 6. An interesting and comprehensive program has been prepared, that includes names of national importance, among whom may be mentioned Anthony Comstock, secretary New York Society for the Suppression of Vice; Rev. Sylvanus Stall, D. D., author of the "Self and Sex Series;" Mr. Owen R, Lovejoy, secretary National Child and Labor Committee; Lucy Page Gaston, president National Anti-Cigarette League; Charles R. Jones, chairman Prohibition National Committee; Rudolph W. Holmes, of the Chicago Society of Social Hygiene; and others. The arrangements committee have left nothing undone to make the Congress the most successful one that has ever been held. Programs and full information may be obtained by addressing the president of the Federation, B. S. Steadwell, La Crosse, Wis.

RURAL EDUCATION

THE Century for October has a powerful article from the pen of Prof. L. H. Bailey, Director of the College of Agriculture, Cornell University, on "The Common Schools and the Farm Youth." The spirit of the article is contained in this sentence: "Some day the common schools will prepare for colleges of mechanic arts and agriculture as consciously as they now prepare for literary colleges."

"In time, as the schools develop, we shall find that we shall not need to introduce agriculture as a separate study, even in rural districts, at least not below the high school, for in such districts the whole school effort will have an agricultural, country-life, or naturestudy trend."

CURVATURE OF THE SPINE

DR. LOVETT, in his valuable work, "Lateral Curvature of the Spine and Round Shoulders," gives just the information which has long been needed by both physicians and patients in relation to the practical treatment of that increasingly common malady, curvature of the spine. The work contains more new light on this subject than any which has heretofore appeared, and makes clear not only the cause of spinal curvature, but gives practical methods of cure. The exercises, simple and effective, are for the most part such as can be taken by the patient himself.

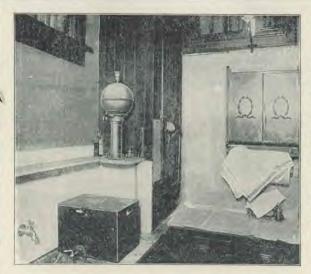
"Lateral Curvature of the Spine and Round Shoulders," by Robert W. Lovett, M. D., Boston. Associate surgeon to the Children's Hospital. Boston; surgeon to the Infant Hospital; instructor in orthopedic surgery, Harvard Medical School. 185 pages. 154 illustrations. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut Street, 1907. Price, \$1.75 net.

THE HYGIENIC CELLAR

"MAKING the Cellar Sanitary," by George E. Walsh, is one of the features of the October *Home Magasine*. "A cellar may be perfectly water-tight, and still prove very inimical to the health of the occupants upstairs. Too often the cellar is looked upon as the general dumping ground for all sorts of discarded trash, the storehouse for perishable and non-perishable goods, and a 'last resort' for sweeping dirt and filth which cannot be tolerated upstairs.

"The division of the cellar into compartments for special purposes is the only way to secure order out of chaos, and at the same time prevent waste and the emanation of noxious odors. The confinement of the coal dust to one part of the place is in itself an important gain. The partitions should be carried up to the ceiling, and not half-way up, as is too often the case, and inside and outside sheets of builders' paper should be tacked on to cover every crevice and knothole. Wooden slats running vertically or horizontally will keep the paper from being torn."





WHETHER YOU ARE A VEGETARIAN

Or not, you surely do not care to feed upon the wriggling, squirming creatures that are to be found invariably in impure drinking water.

If you could see through a microscope a drop of the water you are drinking today, in your home, in your office, or perchance that you are furnishing to those under your care and supervision, you *might* meet with a startling revelation. For every day there are countless billions of disease-producing germs taken into human systems in drinking water that has not been properly cleansed.

An employer who forces his employees to eat putrid food or to breathe putrid air, soon falls into the hands of the authorities. A parent who permits such atrocities is declared incompetent to care for his children.

There is no more excuse for the drinking of putrid water than there is for the breathing of putrid air and the eating of putrid loods.

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And rub it hard and feel better ? (Write for reprint of this mystery.)

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A Perfect Figure is the Crowning Glory of Woman's Beauty. An undeveloped bust is a sure sign of poor circulation and low vitality. A few minutes daily use with the

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will build up a permanent, perfect bust, round out the arms, shoul-ders and neck, take away all wrinkles and give a beautiful com-plexion. DO YOU KNOW WHAT VIBRATION WILL DO?

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For instance, Rheumatism, Gout, Lumbago, etc., are caused by acid in the blood. This acid gets stopped at some place for lack of circulation and the congestion causes pain, makes a pressure on the nerves surrounding the congested parts, resulting in the disease. Vibration breaks up the congestion, increases circulation, and the acid and poison is carried out of the system through the regular channels,

the system through the regular channes. Treatments with the Red Cross Vibrator are so simple that any Man, Woman or Child can give them. Complete direc-tions and chart showing method of treatment for the different diseases accompany each outfit. There is nothing equal to vibration for face and scalp treatment. We send you charts Takes out the wrinkles and clears the complexion. and directions and teach you by mail FREE.

Dr. W. H. Easter, Longment, Colo., writes: "I received the massage machine you sent me O. K. and it is a dandy. It works fine and is a winner. I have a vibrator in my office that cost me \$100.00 and I consider your machine superior to it." The Red Cross Vibrator is Guaranteed for Five Years.







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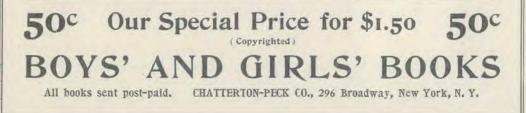
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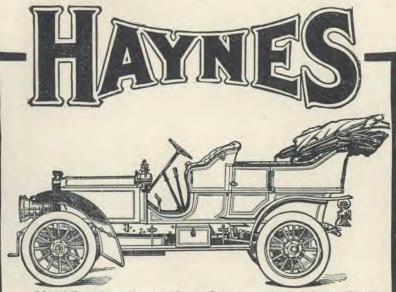
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On Board a WhalerBy Thomas W. Hammond
Chivalric Days
The Last of the Arawaks
Under the Star-Spangled Banner
Fighting under the Southern Cross
In the Days of Jefferson
Cascabel the Conjurer
Captain Sam
Under Orders
The Golden Talisman
The Windfall
Joel, a Boy of Galilee

BOOKS FOR GIRLS

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The Rainbow Bridge	
The Girls of Banshee Castle	
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Sweetbrier and Thistledown	
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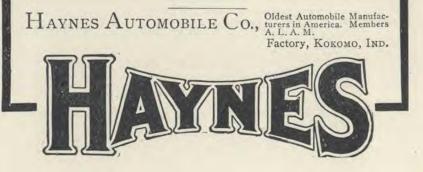
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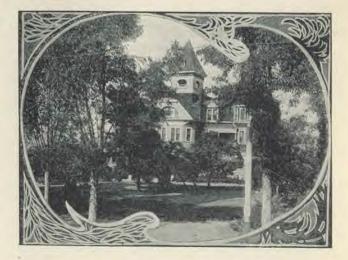
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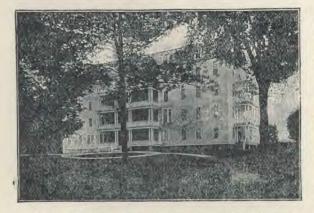


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(SEE NEXT PAGE)

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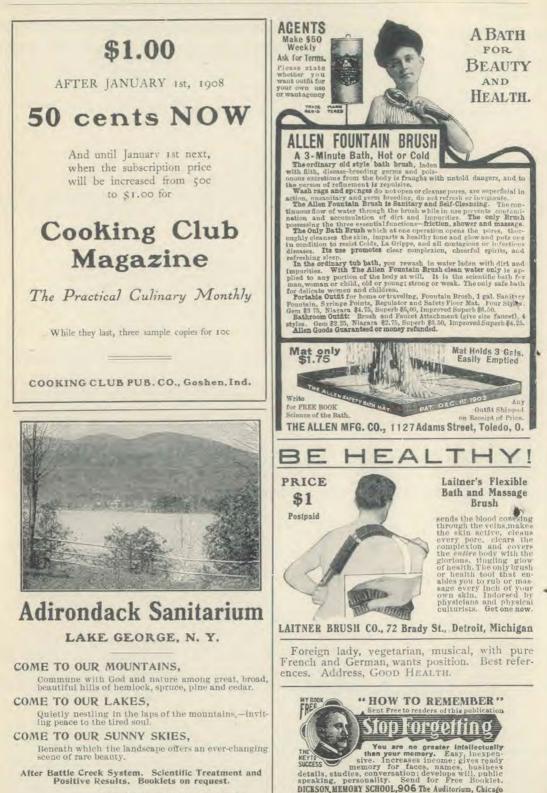
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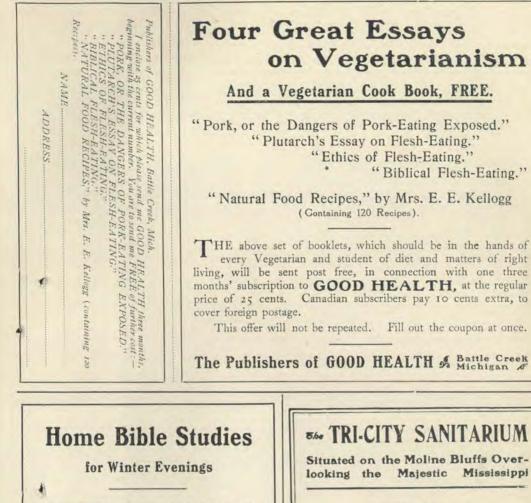
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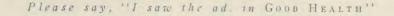
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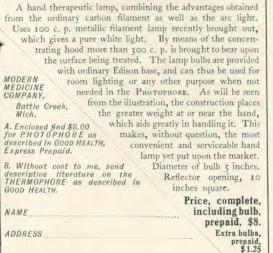


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