

GOOD HEALTH

EDITED BY J. H. KELLOGG M.D.



OCTOBER NUMBER

How to Quit the Coffee Habit

Take a coffee pot
Put in two heaping tea-
spoonfuls of Noko for
every cup of beverage
required.

Boil for twenty minutes
Serve with cream or milk
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Continue its use for 30
days

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go back to coffee---

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coffee without its harmful effects

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Coffee causes headaches, **poisons** the nerves, causes indigestion and sleeplessness

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THE BATTLE CREEK CEREAL COFFEE CO., BATTLE CREEK, MICHIGAN

Tell them you saw it in the Battle Creek Edition

IT is an interesting thing to sit in the large parlor of the Battle Creek Sanitarium and watch the people flock in to attend a lecture. They come singly, by twos and by fours and by whole com-

panies. But the singular thing about it is that they are not at all like the class of people which the uninitiated expects to see. He looks for a troop of gaunt, emaciated, sallow, petulant invalids, with here and there an obese, dropsical one, perhaps, to lend variety. He expects to smell iodoform and to hear rasping coughs echoing through the corridors. But he is happily disappointed.



First Home of the Battle Creek Sanitarium

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The observer finds instead an energetic company of wide-awake Americans, vying with one another in the interest manifested. No lecturer ever stood before a more attentive audience. Few teachers have ever gathered together a more earnest and intelligent group of students. For that is really what they all are — students of the great system of health-ful living for which the Sanitarium stands.

One night a short time back, Ex-Governor Van Sant of Minnesota stood before a roomful of guests in the

large parlor of the Sanitarium and announced in no uncertain terms, his determination to become a living exponent of the Battle Creek Idea. It was the same week that Michael Williams, a member of the staff of *McClure's* magazine, gave a detailed account of his researches in Fletcherism, the experiments of Professors Fisher and Chittenden at Yale, and of the Battle Creek Idea in general. The large audience listened attentively, and for an hour or more after the speaker had finished he was occupied answering the questions propounded by the circle of eager listeners who had quickly crowded around him.

A world-wide traveler, who has spent eighteen years in visiting all parts of the globe, and who for over eight years has been a frequent visitor at the Sanitarium, the writer of a number of books and a keen observer, was taking a sun-bath in the outdoor gymnasium. To a neighbor he related that he had visited all of the famous health resorts of the world, some of them not only once



Sleeping Out-of-Doors

but several times. "There are just eleven leading health resorts," he said, and he named them over. "What, then, would you say with regard to Battle Creek?" questioned the neighbor. "Bat-

tle Creek is worth the other ten," was his prompt reply.

At the time this announcement is being written the "summer rush," so-called, is almost over. The leaves are taking on a yellower tinge, and the earliest signs of autumn are beginning to display themselves. The air has a crispness and freshness that makes the nerves tingle with energy. The sunlight falls with a mellower hue. But autumn is long here in Michigan, and with the pleasant prospect of frequent stretches of "Indian

in constant dread of chilling or catching cold. For he knows that here, within the walls of this mammoth, yet home-like, institution, there are seven acres of space in which a climate is manufactured daily and each hour of the day that produces all the advantages of Florida, here in the heart of Michigan, one of the most northerly of the states. By means of a wonderful automatic mechanism, one hundred and sixty-eight million cubic feet of fresh air is introduced into this building every day—more than



in the Palm Garden

Summer" days, winter still seems a long way off.

The Sanitarium family, which still numbers several hundred, is settling down to a somewhat quieter home life and the relaxation which attends the passing of the busier though entrancingly pleasant delightful summer months is not unwelcome to the sick folks who remain to enjoy the tonic autumn weather.

The coming of winter holds little terror for the members of the Sanitarium family—even to the invalid, who stands

three times as much as is required by standard sanitary authorities. This is almost like living outdoors, yet there is never a cold draft or a chill, for a uniform temperature is maintained from top to bottom, 70 degrees during the day and 60 degrees at night. The air is pure, fresh, sweet, germless, continually. There are no stale fumes of tobacco or liquor, no hotel smells, no kitchen odors—the kitchen as well as the dining room is located at the very top of the building.

Please say, "I saw the ad. in Good Health."

Just adjoining the spacious lobby of the Sanitarium, is the great palm garden. The pictures give a glimpse of this wonderland where tropical scenes and conditions can be enjoyed to the full in the dead of winter. One could spend days and weeks, with every moment of his time profitably taken up, without leaving the doors of this great health university.

But the pure outdoor air has price-

book of nature. Skating, tobogganing and skeeing are all encouraged in the winter season, while the less fortunate patients who are unable to engage in such violent exercise are bundled warmly in wheel chairs for a pleasant outing on the long porches or over the pleasant walks and drives around the building.

The evenings are not long, even when autumn days give way to winter, for with gymnasium drill, the lectures, mu-



A View of the Dining Room

less value to the invalid. So the Sanitarium visitor is given every encouragement to enjoy outdoor life. There are daily outings in the tallyho in summer and fall, and in sleighs in the winter, with plenty of warm robes, foot warmers and cheerful company, and under the direction of interesting guides.

There are outdoor walking parties, frequently accompanied by a physical director or naturalist who expounds to the uninitiated the teachings of the great

sicals, stereopticons, song services, and countless other features of entertainment, the time is always pleasantly and profitably occupied.

Perhaps the most important point of all is the combination of features which is sometimes termed the "School of Health," in which the patients are taught the principles of diet, their own general dietetic needs and the scientific modes of preparing food so that it will be both appetizing and wholesome. The use of

simple home remedies is also taught. Four times a day in the vast gymnasium there are classes for exercise, with special classes of smaller groups at other hours doing individual work on apparatus and walking or running on the indoor track, all under the direction of competent, well trained physical directors. The large indoor swimming pools connected with the two extensive bath departments—one for men and one for women—are the source of infinite pleasure during all the fall and winter, as

they are kept open at all hours of the day and are always at a temperature equal to that of sea-water in mid summer.

In spite of all of the advantages afforded at the Sanitarium, the rates are very liberal. Full information regarding them, together with a handsome book of views may be obtained by addressing

THE SANITARIUM,
BATTLE CREEK, MICH.



Special Magazine Opportunities

NOTE.—In announcing in the last number that we should eliminate all clubbing offers in the future, we somewhat overshot the mark. It is quite possible, we find, to make such offers as are given herewith and still conserve the best interests of Good Health. These combinations will save magazine buyers considerable money. When writing address:

Circulation Manager, Good Health, Battle Creek, Mich.

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BATTLE CREEK,

MICHIGAN, U. S. A.

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A Vegetarian Number

Vegetarianism will be the main feature of the November GOOD HEALTH.

Dr. J. H. Kellogg contributes a leading article on the influence which meat-eating exerts on the molding and development of character.

Rev. Henry S. Clubb, President of the Vegetarian Society of America, gives a valuable resume of "The Present Status of Vegetarianism in the United States."

"Bread, the World's Staff of Life," is the subject of Mrs. E. E. Kellogg's interesting study of bread as it is made in different parts of the world.

David Paulson, M. D., writes on a subject on which he is recognized authority, "Meat-Eating a Feeder of Intemperance."

In "Health, Strength and Endurance" Prof. Irving Fisher, Professor of Political Economy at Yale, describes the physical tests made recently at the University, and which resulted so favorably for vegetarianism.

Robert Brown, of Ireland, has an informing article on "Promoting Health Ideas in Ireland."

The story of a beef-steak, from the time it leaves the green fields until it reaches the consumer's table, written in the first person, is contributed by A. W. Nelson, M. D., under the title, "Autobiography of a Beef-Steak."

"Steak, Equine and Canine," by T. C. O'Donnell, presents the enormous dimensions which the horse and dog-flesh trade is reaching in Germany.

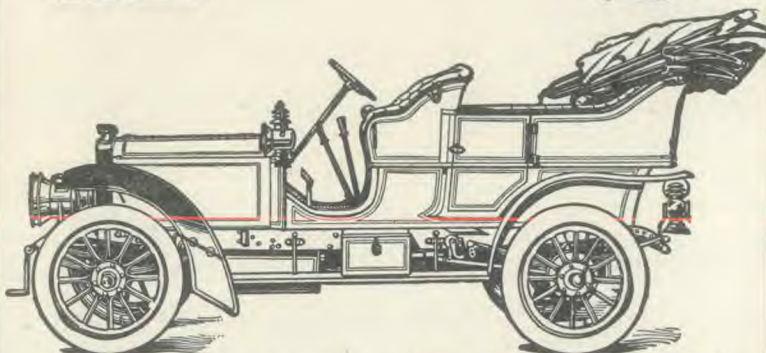
The Thanksgiving dinner is not overlooked, and Mrs. M. A. Emmons, in "The Vegetarian's Thanksgiving Menu," gives an ample menu list with complete recipes.

Lines of health work other than vegetarianism, however, are taken up, and the following articles will be found helpful and timely: "How to Detect Excess of Proteids," by Dr. J. H. Kellogg; "Edwin Markham," the fifth of George Wharton James' Simple Life Biographies; "Home Management of Acute Bronchitis," by Kate Lindsay, M. D.; "Walking," by Benton Colver, M. D.

Charles Micheal Williams presents a study of Food Reform especially as regards meat eating.

Julia E. Rogers, nature writer, furnishes a study on "How insects pass the winter."

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 New Hygiene *Nitcheukoff*
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 Ladies' Guide (Full Morocco) *Kellogg*
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.....1907

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Vol. II, No. 6; July, 1905

RESPIRATORY EXERCISES IN THE PREVENTION AND TREATMENT OF PULMONARY TUBERCULOSIS. (Illustrated). By S. A. Knopf, M. D., Author of the International Prize Essay—"Tuberculosis as a Disease of the Masses."
EDUCATION THE COUNTRY'S HOPE OF STAMPING OUT THE GREAT WHITE PLAGUE. By Edward L. Trudeau, M. D., Saranac Lake, N. Y.
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CRIMINAL TO HIDE THE TRUTH FROM THE PATIENT. By Wm. Osler, M. D., Professor of Medicine, Johns Hopkins University, Baltimore, 1889-1905; Professor of Medicine, Oxford University, 1905.

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THE DRAUGHT FETICH. By Norman Bridge, M. D., Los Angeles, Cal.
SLEEPING OUTDOORS.
SOME MISAPPLICATIONS OF CLIMATOTHERAPY. By George H. Kress, M. D.
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Vol. II, No. 11; December, 1905

WEATHER CONDITIONS IN ASHEVILLE, N. C. By Charles L. Minor, M. D.
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THE DAY CAMP FOR TUBERCULOUS PATIENTS. By David Townsend, M. D.

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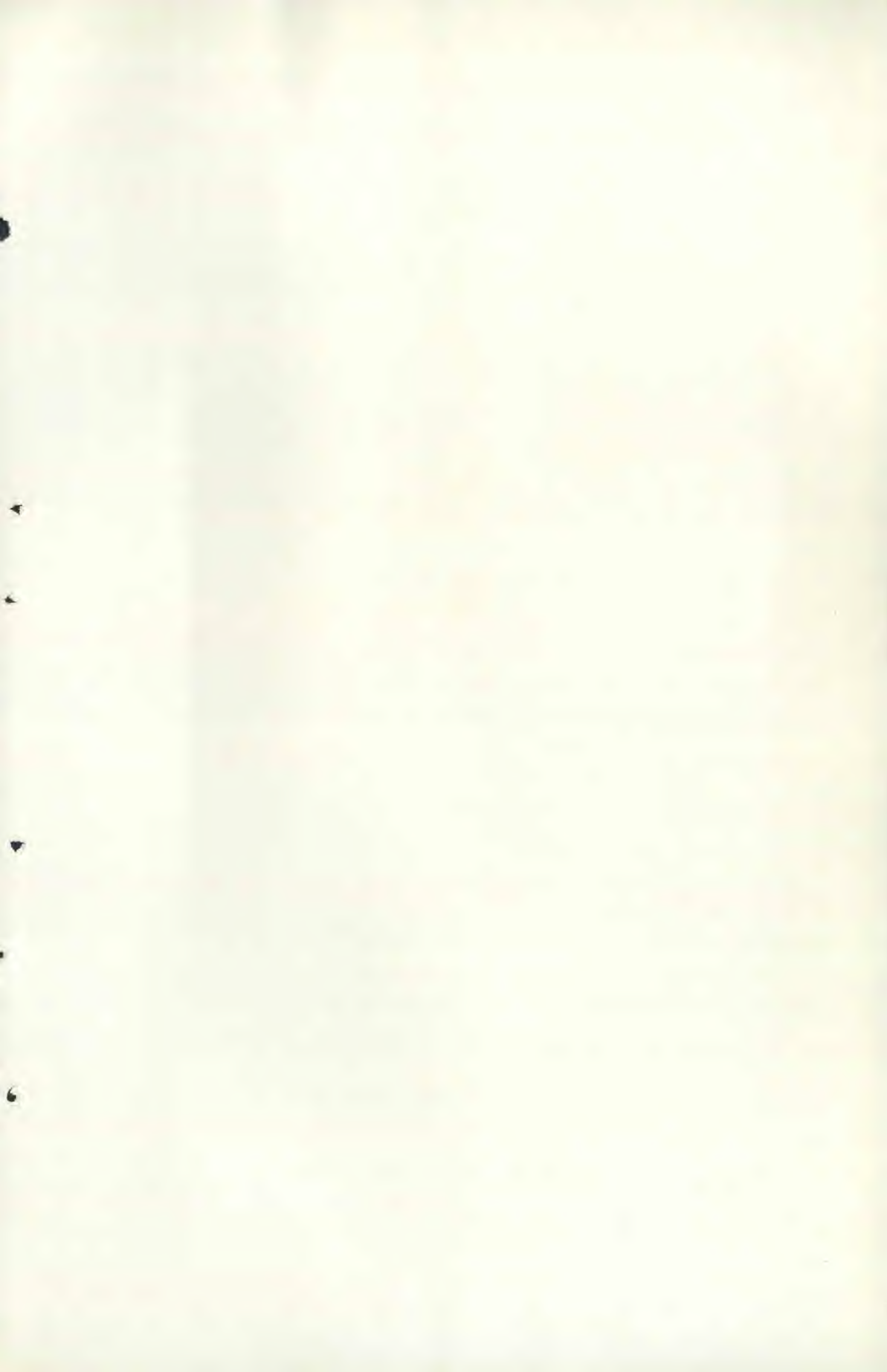
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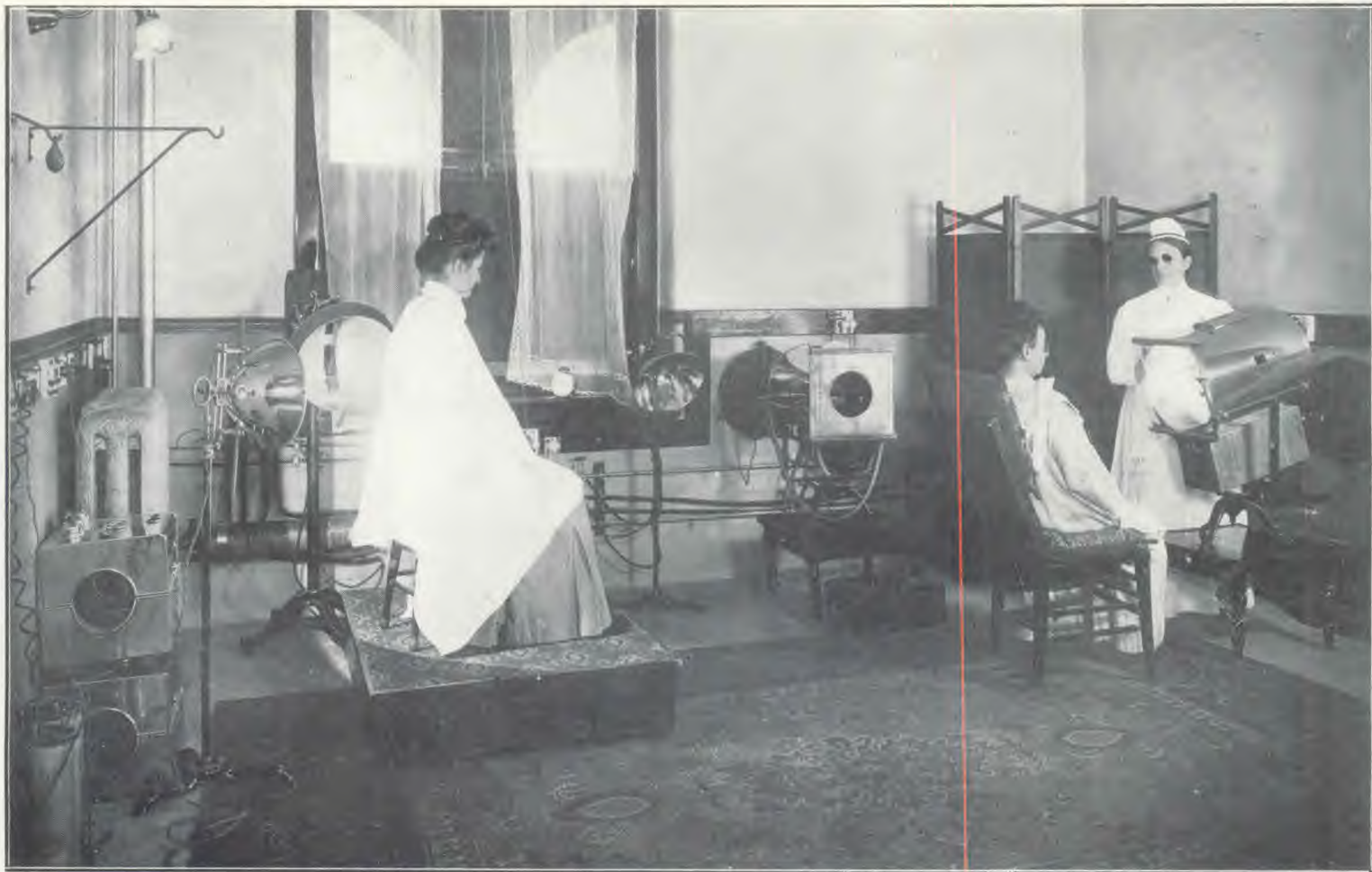
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GOOD HEALTH

HOME-HEALTH MAGAZINE

Vol. XLII OCTOBER, 1907 No. 10

METCHNIKOFF is the philosopher-bacteriologist of the Pasteur Institute who has largely succeeded to the place formerly filled by the founder, Pasteur, in this great institution from which such a vast flood of light of the greatest value to human welfare has shone forth upon the world.

Fighting Old Age

Although the name of this great *savant* has not yet become so universally a household word as the name of Pasteur, yet he has already contributed so many facts of the highest value to medical science and to hygiene that history will certainly record him as one of those whose lives have been epoch-making events.

For many years Metchnikoff has been making a study of the question of longevity. He has asked many questions in relation to the length of human life, and has brought his wide learning and profound knowledge to bear in seeking the answers. In a book recently published by him, "Essais Optimistes"* (Optimistic Essays), he has recorded a multitude of exceedingly interesting facts which he has gathered, together with the results of his own personal researches and experience. We summarize in this article some of the more striking and practical of these facts and the conclusions to which they lead:

Is Man Naturally Long Lived?

The first inquiry made by Metchnikoff is this: Is man naturally a long-lived being? If so, about what is the limit of his life?

In studying the various races of man, it is found that the proportion of aged people differs greatly. For example, no very old people are to be found among the natives of Malaysia; but a very good reason for this exists in the fact that it is a custom among these barbarous tribes to bury alive their old men and women when they become incapable of useful work.

The natives of Terra del Fuego go a step further. When threatened with famine, they kill and eat their old women rather than sacrifice their dogs, because "the dogs catch seals, while the old women do not," as they naively expressed it to a traveler.

While these practices do not prevail in civilized lands, other causes are in operation. It is noted that suicide occurs nearly twice as frequently among persons over fifty years of age as in persons under fifty. At least this is true in France. Other causes also contribute artificially to diminish the number of old

* By Elie Metchnikoff. A. Maloine, Publisher, 25-27 Rue de l'Ecole-de-Medicine, Paris, 1907.

persons, for instance the greater frequency of violent deaths among the aged.

Nevertheless, so many examples of great age are to be found, especially in certain nations, that it can not be believed that seventy to eighty years is the natural extreme limit of human life.

In Greece there is found to be one centenarian in every 25,641 inhabitants, while in France the number of centenarians is only one in 219,940 inhabitants, a very striking difference. Metchnikoff cites a number of interesting examples of great age, among others Kentigern, or Saint Mungo, of Glasgow, who died at the age of 185 years in A. D. 600; Pierre Zortay, of Hungary, who was born in 1539 and died in 1724, thus reaching nearly two centuries; Drakenberg, of Norway, known as "the old man of the north," who died in 1772 at the age of 146 years. The author also mentions Thomas Parr, the Englishman who is reputed to have lived 152 years and 9 months. A number of examples are cited of persons who have lived to the age of 120 to 140 years.

It is noted that *the greatest number of old people are to be found among the inhabitants of the Balkans, who in a comparatively small population number over five thousand centenarians.*

Metchnikoff has studied the question of old age in lower animals as well as in man, and even in vegetables. He gives a picture of a mule aged 37 years, showing all the evidences of old age; of a goose 25 years of age; and of a turtle aged 150 years. Horses have been known to attain the age of 60 years. "IN GENERAL," SAYS METCHNIKOFF, "HERBIVOROUS ANIMALS LIVE LONGER THAN CARNIVOROUS ANIMALS."

Some animals of the lower orders, as well as higher animals, are found to live to a great age. A sea anemone has been known to live in an aquarium 66 years, while a polyp lived in an aquarium at Hamburg a still longer time. Some mollusks (*Tridacna gigas*) lived 60 to 100 years. Even insects are sometimes long lived, as the seventeen-year locust. Some fish have been known to live a century, and Gessner tells of a pike which lived 267 years. Buffon believed that carps lived to the age of 150 years. Frogs live 12 to 16 years, and toads have been known to live 36 years. A turtle from the islands of Galapagos lived 175 years.

Parrots often reach the age of nearly a century. Swans have been known to live to nearly the same age. The eagle and the falcon have also been known to reach a century or more. Elephants live from 80 to 150 years. The rhinoceros is almost equally long-lived. The ox lives 25 to 30 years, and camels a few years longer. A dog is old at 10 or 12 years, and dies at 16 to 18 years. Cats attain about the same age. A cat owned by Metchnikoff died at 23 from cancer of the liver. Rabbits die at 10 years, and guinea-pigs at 7. Mice rarely live longer than five or six years.

Many examples of still greater length of life are cited from the vegetable kingdom. The *Sequoia gigantea*, according to the American botanist Sargent, has a life of 3,000 to 5,000 years. Adanson observed a baobab tree which he estimated to be over 5,000 years old. The celebrated cypress of Montezuma was believed to be nearly 2,000 years old, and another cypress tree in Oaxaca, Mexico, still older.

"*Man Does Not Die; He Kills Himself.*"

The fact that certain individuals of different species of animals and widely varying orders of plants may attain to such great ages, is regarded as evidence that natural death is a rare circumstance, especially among human beings, and that death usually comes as the result of some departure from the normal conditions of life. As another eminent physician says, "Man does not die; he kills himself."

Metchnikoff has perhaps studied this question more profoundly than any other philosopher who has ever lived. He has arrived at the conclusion that *the cause of death, in human beings at least, is the failure of the body to eliminate the poisons which are the natural result of the various bodily activities.* A locomotive, when actively at work, produces poisonous residues in the form of ashes and smoke. The same is true of the human body. So long as these poisons are eliminated as rapidly as produced, the body may continue its work, provided, of course, its activity is not interrupted by external violence of some sort.

These poisons are chiefly carried out through the lungs and the kidneys. Some portions escape also through the skin and the intestines. So long as these important emunctories continue to perform their duty perfectly, the machinery of life runs on smoothly, without friction, and apparently without wear; but *as soon as these doors for the exit of body poisons begin to close, so that the accumulation of the body wastes begins, a deterioration of the living cells of the body is set up which develops gradually, and slowly or rapidly according to the rate at which poisonous wastes accumulate.* Most important of all the means of exit for the body poisons are the liver and the kidneys. Failure on the part of these organs is quickly followed by general degeneracy and death.

Macrophages.

But accumulation of poisonous wastes, according to Metchnikoff, is not the immediate cause of old age, but only a predisposing condition. The actual degeneracy of the tissues is due to a destruction of the tissue cells by wandering cells found in the body and which he describes as *macrophages*.

These cells move about from place to place, and while the body remains in its normal condition, devote their energies to the destruction of waste particles, organic débris. They, in fact, play the rôle of scavengers, like the turkey-buzzards which regularly visit the backyards and alleys of tropical cities to consume the daily accumulating refuse.

So long as the macrophages confine themselves to this work, all is well; but when the vigor of the body cells has been reduced by the accumulation of tissue poisons, these scavenger cells attack the living tissues and actually destroy them. This is one of the remarkable discoveries which Metchnikoff has made in relation to the causes of premature old age.

The practical question which the philosopher asks himself is, How may this attack of the macrophages upon the living cells be prevented? We can not attack the macrophages, even if this were desirable, without at the same time doing damage to the body itself, for these cells are more hardy and vigorous than the higher cells by which the bodily functions are performed, so that whatever

means might be brought to bear to weaken the attack of these cells would to a still greater degree damage the body itself. The only direction in which we can hope for success in the attempt to prolong life is in giving attention to those predisposing causes which weaken the vitality of the higher body cells and thus expose them to the attack of the macrophages.

Long Life Must Be a Simple Life.

Here Metchnikoff opens up before us a great field for thought and study. If we would prolong human life, we must *make the conditions of life such that the premature accumulation of body wastes or poisons shall be prevented.* Life must be simple and natural. It is evident, then, that we must first of all avoid the introduction of poisons into the body. Metchnikoff points out the evils which may result from the long-continued use of even such mild alcoholic beverages as kumyss and kefir, which contain only one per cent of alcohol.

Illustrating the importance of temperance, he mentions the case of Mademoiselle Nausenne, who died at the Hospital Dinay of Paris in 1756, at the age of 125 years, and who gave her sobriety as one of the secrets of her long life.

Metchnikoff also cites the case of Dr. Weber, of London, a physician who at the age of 83 years was still vigorous and actively at work, and quotes the following rules for long life laid down by this eminent physician as the result of his own practical experience:

"It is necessary to preserve all the organs in a state of vigor. Morbid tendencies, whether hereditary or acquired, must be recognized and combated.

"Moderation must be exercised in eating and drinking as well as in the gratification of other bodily appetites.

"ONE MUST BREATHE CONSTANTLY PURE AIR.

"Physical exercise of some sort must be taken daily. In many cases breathing gymnastics, walking, and hill climbing are essential.

"It is important to RETIRE EARLY AND RISE EARLY. Sleep should not exceed six or seven hours [?].

"THE BODY SHOULD BE WELL RUBBED OR BATHED DAILY. The water employed may be cold or hot, according as it seems most comfortable. Sometimes alternations of heat and cold may be employed.

"REGULAR WORK AND INTELLECTUAL OCCUPATION ARE ESSENTIAL.

"IT IS NECESSARY TO TRAIN ONE'S SELF TO ENJOY LIFE, to maintain tranquility of mind, and to cultivate hope. On the other hand, the passions and violent nervous excitations must be combated.

"The will must be strongly exercised in the direction of the conservation of the health, and THE AVOIDANCE OF ALCOHOLIC LIQUORS AND OTHER STIMULANTS as well as narcotics and pain-relieving drugs."

A temperate life is, then, according to Metchnikoff, the means most essential to longevity.

Diet and Longevity.

Coming to greater detail, attention is especially directed to the diet as having a direct bearing upon the length of human life. While it is noted that certain flesh-eating birds, as the eagle and the falcon, are very long-lived, attention is

called to the fact that carnivorous animals in general are short-lived; and the reason for the greater longevity of carnivorous birds is found in the fact that flesh-eating birds have a very short colon,—special study of this subject showing in general a direct relation between the length of life and the length of the colon,—the longer the colon and the longer the retention of fecal matters in it, the shorter the length of life. The reason for this interesting fact Metchnikoff finds to be the enormous development of poisons by germs which find entrance to the colon, take up their abode there, and subsist upon the remnants of foodstuffs which have escaped digestion. Strasburger claims to have proved that some trillions of bacteria are discharged from the colon daily. Nearly all of these produce poisons, some of which are highly deadly in character.

Is the Colon a Superfluous Organ?

The most important problem, then, according to Metchnikoff, is how to prevent the development of these poisons in the colon. So great importance does Professor Metchnikoff attach to this matter that he even intimates that THE COLON IS QUITE SUPERFLUOUS, and that MAN WOULD BE BETTER OFF WITHOUT IT. He cites the case of a woman who lived 37 years without a colon, and mentions several persons whose colons have been eliminated by surgical procedures, and who have recovered health by the operation.

Since the colon can not be removed, however, the practical problem is how to avoid the evils which result from the putrefactive processes which take place in this capacious organ. Since these mischiefs are due to the growth of germs, the remedy which naturally suggests itself to a bacteriological specialist is to find some harmless or comparatively harmless germ with which the poison-forming germs may be combated; in other words, *to fight germs with germs*.

After much study and research Metchnikoff believes he has found the required beneficent germs in various lactic-acid-forming microbes, particularly a special microbe known by the name of paralactic bacillus.

This bacillus grows in milk, and in growing produces large quantities of pure lactic acid. It does not decompose fats or produce alcohol. Milk is first sterilized by boiling for a few minutes, then allowed to cool, and a quantity of the ferment is added. In a few hours a pleasant sour taste develops. A pint or a pint and a half of this sour milk is taken daily. By this means large quantities of the acid-forming germs are taken into the intestine, and by degrees the poison-producing germs are driven out; thus a more normal condition of the blood and of the body is maintained. The work required of the kidneys, liver, and other excretory organs is lessened, and the vigor of the living cells is maintained so that the macrophages do not attack and destroy them.

Incidentally Metchnikoff presents a strong argument against the use of flesh food. He calls attention to the fact that *a South American bird which lives upon bananas and other fruits is exceedingly long-lived*, and also mentions that the fecal matters produced by this bird are entirely free from putrefaction, and have even the fragrant odor of the apples and bananas upon which it feeds.

Life-Shortening Foods.

While the plan proposed by Metchnikoff for overcoming the inconvenience of having a capacious colon possesses evident practical advantages as a measure


for general use when it has once been introduced, it is evident that a still better plan is to be found in *the elimination from the dietary of those substances which naturally promote the growth of germs in the colon.* There are certain foods which are well known to have this character. Metchnikoff calls attention to the danger of using raw milk because of the great number of colon germs and germs of various sorts with which RAW MILK IS ALWAYS CONTAMINATED, CHEESE AND EVEN ORDINARY SOUR MILK IS SHOWN TO ABOUND WITH GERMS OF DIFFERENT KINDS. Such foods encourage the growth of germs in the colon in enormous quantities, not only by introducing dangerous germs, but by supplying the material upon which they rapidly grow and from which they are able to produce the most deadly poisons.

But the substance which constitutes the most suitable food for these poison-producing germs, and in which they develop with the greatest rapidity and produce poisons of the most deadly character, is the flesh of animals. Thus it is that animal flesh becomes so quickly putrescent, offensive, and poisonous when left to itself after the death of an animal. The conditions of warmth and moisture afforded in the human colon are those which in the highest degree promote putrefactive processes; hence flesh is of all substances the best calculated to encourage the conditions in the colon which Metchnikoff has shown to be the chief cause of old age, not only in man, but in other of the higher animals.

One of the best means of fighting old age, then, will be found in wholly eliminating from the dietary those substances which encourage the growth in the colon of germs which poison and destroy the body, and substances which add unnecessarily to the labor of the liver and kidneys. To the list of dangerous foods, including raw milk, cheese, and meat preparations, must also be added eggs, especially when eaten in the ordinary way. Undigested portions of hard-boiled eggs lying in the colon furnish the very best sort of food for old-age-producing germs. Mustard, pepper, vinegar, excess of salt and other condiments, as well as alcohol, must be added.

The vegetable world affords an amply sufficient variety of fruits, cereals, legumes, and green vegetables to support human life under the best possible conditions without involving the risk of poisoning the body and shortening life which necessarily accompanies the use of the flesh of animals, and which is even connected more or less closely with the use of animal products of all sorts. That milk, especially when boiled and fermented with the paralactic bacillus, and also eggs, may be used in moderation, will not be denied, and there are doubtless many persons who in abandoning a flesh diet may find more or less essential the use of such proteid foods as milk and eggs, but many persons certainly profit by avoiding these foodstuffs.

It is evident from these profound studies of Metchnikoff that the nearer man can approach to the bill of fare for which, according to Moses, was originally laid down for him by his Creator, the longer he will be able to live and the freer he will be from disease.





Amos Bronson Alcott

BY WILLIAM PENN ALCOTT

(Concluded)

famous cereal family, then like Lane a deserter from Brook Farm—later an eminent Paulist father and editor of *The Catholic World*.

WHILE occupied with the famous Temple School, the mind of our philosopher was brooding over the idea of a community. Of course he was, for it is said that at that time every reformer had a draft of one in his waistcoat pocket. In that direction social regeneration was supposed to lie.

During the spring of 1843, Alcott and Lane bought a farm in Harvard, Mass., near the Still River station of the Worcester & Nashua Railroad, and soon the experiment of Fruitlands began. The location was ideal, on the slope of a large hill with a vast outlook to the west bounded by distant mountains, the Nashua River below, interesting woods and ponds not far away. Nearly fifteen miles, as the crow flies, west-north-west from Concord lay their lonely red farmhouse and the estate of about one hundred acres, including ten old apple trees. My own family of six, with nine men and one woman, constituted the *personnel*. Besides the two leaders, the only man of note was Isaac Hecker, of the

At Brook Farm there was great liberty of belief and practice; at Fruitlands very little, especially as to food and raiment. Here the leaders positively forbade all flesh meats and the use of animal products in any form. Spices, tea and coffee, in fact all drinks not water, were excluded. The products of slave labor, even rice, were denied. Maplesugar when it came was their only hope of sweets. Sheeps' wool and slave-raised cotton must not pollute this Eden. Only linen garments could be worn. Kerosene had not yet come, and there was nothing for artificial light but candles made from bay-berry wax, which was expensive. What they should wear when their old shoes gave out was the question. Animal fertilizers being out of the question, clover was their only hope, while they plowed with a spade. Bronson Alcott said canker-worms had as good a right to apple-trees as man, and the caterpillars improved their opportunity. Even money was abjured as the root of all evil. Surely this was "the simple life" gone to seed.

Early in June they occupied the farm and began to spade. Their hands were soon blistered, and it was late for planting. So they allowed one of their number to bring his oxen from a neighboring town. Farm work went hard. Lane was wont to argue that "being, in preference to doing, is the great aim," and with several others he now faithfully carried out his theory. But Alcott

"worked with every muscle of his body, for he was in earnest. He taught with his whole head and heart, planned and sacrificed, preached and prophesied, with a soul full of the purest aspirations, most unselfish purposes, and desires for a life devoted to God and man."

As might be expected, the crops were mostly a failure. Barley was an exception, and so barley bread was their chief food, as it was of the Hebrew prophets. There was some fruit at Fruitlands, and bread and apples, or apples and bread, was their menu. But nature hospitably provided an abundance of huckleberries that summer, and the raw purslane which choked their garden was not disagreeable to a keen appetite. Our philosopher often fashioned the unbolted and unleavened bread into the shape of animals or other objects to render it more palatable. Some of the members, in later years, claimed they should have starved save for the charity of neighbors.

Yet life in this community was far from unhappy. How could they be sick or have melancholy and black bile. Their wits were keen and they saw the funny side of everybody and everything, for among them there were all manner of strange ideas and practices, and nearly every one rode some hobby horse. To the Alcott children the whole summer was a picnic. Much was made of their birthdays, and they frequently prepared rural dramatics at which Louisa was an adept. All joined the outside people to celebrate Independence Day. But when delicate cookies made by the minister's wife were passed to Mr. Alcott he declined them with a wave of the hand and the words, "Vanity, and worse than vanity."

There were few to harvest their meager crops, and so the mother and her children, when rain threatened, were

obliged to drag in the sheaves in clothes baskets and Russian sheets. The other woman had progressed beyond manual labor, and there was no one who toiled more or bore heavier burdens than Mrs. Alcott,—cheerfully too, though she came to Fruitlands only in loyalty to her husband, as "ballast to the balloon," she said.

Cold weather approached, and several had slipped away. Soon even the severe and despotic Lane and his son joined the permanent Shaker Community nearby. But there it was "all work and no play," and they soon returned to England. December and the first snow found the Alcott family alone and bankrupt. The father was heartbroken, for he had failed in what was more than life to him. While the family cowered over the scanty embers, Bronson Alcott lay upon his bed and would neither eat nor speak, for he was never known to complain. His friends had cast him off for a fool, he was hopelessly in debt, he was worn out. God had forsaken him; death seemed near. His faithful wife could do nothing for him. But one night some heavenly messenger showed him what he owed his devoted companion and loving children. The thought was revolutionary for his subsequent philosophy and practice. He reached forth and took of the food, and in the morning he welcomed help to arise and face life again. "Mrs. Hope," as the annalist calls her, told him of resources she had secured, of a home for the winter she had found, and of humble labor for each, which would supply their simple needs till spring. So, one cold December day an ox sled bore the family and their few possessions to a kind neighbor's house, where they occupied a few rooms till they could return to Concord in the spring.

"Poor Fruitlands!" said Bronson Alcott with a sigh, as he passed out from

the Eden of his dreams. But he smiled as his wife added: "Don't you think Apple Slump would be a better name for it, dear?" "Transcendental Wild Oats" is the title of Louisa Alcott's sketch of this experiment, given in "Silver Pitchers," and there are few compositions in our language more full of humor, pathos, and truth. Able Lamb and Timon Lion are apt names for the two leaders in the enterprise.

her parents by teaching, domestic service, writing. From authorship, erelong, renown and wealth poured in upon her. Both were laid at her parents' feet, and the father was as proud and happy as a child over his daughter's success. But this anticipates.

Some years of financial trials and recuperations followed the episode we have considered. But finally, through a legacy and other providences, the family



The School of Philosophy

Much is to be learned by the reformer and the student of human nature from the story of Fruitlands. Its projector learned much. He returned to Concord a sadder and a wiser man, convinced that the family was better than the community, not expecting any more to regenerate the world in a year or a lifetime, but content to do his humble past by gentle, chastened voice. Happier days were before him. His eldest child, devoted, self-sacrificing, soon aided

secured the Hillside house. At Fruitlands, and before Fruitlands, our philosopher had begun to teach by Conversations. This old Socratic method of instruction was employed by Mr. Alcott with great success. It was not a small matter to encourage so wise an educational means. The ideas which the leader sought to emphasize were often beyond the comprehension of his pupils—if he knew himself what he meant. But he had great success in setting

minds—other minds—at work, and arousing deep and original thought.

In 1853 was made the first trip to the West for Conversations. Through most of his remaining years, Bronson Alcott spent the colder months in a similar way. From the first tour he returned with a single dollar in his pockets, but with abundance of hope for his next tour. Gradually the pecuniary results became more satisfactory. During some of these tours he visited Battle Creek. The subjects discussed were exceedingly varied, such as self-knowledge, nature, diet, temperament, representative men, the Timers. His own peculiar views on many points soon appeared. Light-complexioned people were more angelic than others. Potatoes and all underground vegetables belonged to the kingdom of darkness. We were all pre-existent. Our philosopher so constantly returned to these and other favorite ideas that Emerson called him "a tedious archangel," and, while counting him one of the profoundest of thinkers, he also recognized the inoffensive vanity, so common in great men, in writing: "Alcott and Lane are always feeling of their shoulders, to find if their wings are sprouting."

For several years my relative was superintendent of the public schools of Concord, an honor and an opportunity which caused him much pleasure. He gave considerable time and a ripe experience to this work, and his printed reports were highly valued. The whole people reaped a benefit.

Bronson Alcott was prominent in introducing and supporting that philosophy popularly called Transcendentalism, which during his day had a large following in New England. For the understanding of the system the reader should consult books of reference. A philosophy based on intuition is not easy of definition. Our subject's brother-in-

law, Rev. Joseph May, once wrote him: "I wish I could better understand you and Mr. Emerson; and I wish you made yourselves more intelligible to others." There was much talk of the Newness, the Over-Soul, Gnosticism, Neo-Platonism, the Lapse of the Soul, and the issues of the war, giving much ground for satire:

"Across the Moorlands of the Not,
We chase the gruesome When,
And hunt the Itness of the What
Through forests of the Then."

The Summer School of Philosophy held its first session in the library of Mr. Alcott at the Orchard House in 1879, and in 1880 the Hillside Chapel was built a few rods back, for its accommodation. The chief projector associated Dr. Wm. T. Harris with himself in carrying on this famous enterprise. Apoplexy incapacitated the leader from active participation in the work after 1882, but the school continued till 1888.

Mrs. Alcott had fallen asleep in 1877. Sanborn says of her: "The best writer in the Alcott family was she who never published a book, and perhaps never thought of writing one—Mrs. Alcott—whose literary gift was greater than that of her famous daughter, or that of her more original husband." This is seen in her letters. What she was to her family and thus indirectly to the world, has been seen in these pages.

After the Fruitlands episode there was an increasing drift in the husband's belief toward the more substantial faith of his childhood. Cared for by the devoted ministry of his daughters, honored at last, free from suffering, able to read and write, and most of the time to enjoy carriage rides, our philosopher lingered with us till March 4, 1888, and then Sleepy Hollow Cemetery received him to rest.



✻
A
UTILITY
TREE



FEW products of the vegetable kingdom can serve such numberless uses for man as the cocoanut palm. Its crown of graceful pinnate leaves branching from the top of a smooth trunk,

makes it one of the most beautiful as it is one of the most useful of trees.

Where it is grown abundantly its leaves are employed for thatching roofs, its fibers for manufacturing many



articles. Its trunk yields a timber known as porcupine wood, which is used for building, for furniture, and for firewood. Potash in abundance is produced from its ashes.

The fruit, which matures in bunches of from ten to twenty, each twelve to eighteen inches in length by six or eight in diameter and weighing upward of five pounds, supplies no inconsiderable portions of the food of the people wherever the palm flourishes.

The nut is eaten raw, and is prepared for the table in many ways. Gathered while still green, and before the meat has solidified, the flesh is soft like custard and may be eaten with a spoon, while a large quantity of delicious coconut milk, a crystal, cooling beverage, is obtained from each nut.

This milk can be used for all purposes of cooking the same as dairy milk. A cream will also form on the top, if

the milk is permitted to stand, which serves every purpose of both cream and butter.

The nut, as exported, is very nutritious, supplying both nitrogenous and fatty material in abundance and in a form most digestible.

In its matured state the nut is seldom used for food in countries where it is grown, the fiber being coarse for digestion. The water, too, having lost its effervescence and sweetness, is discarded.

The principal food use of the mature nut is for making milk. This is prepared by removing the flesh from the shell, grating it as finely as possible. When this is completed, a pint of hot water to each nut is added to the pulp, mixed well, and allowed to stand until cool. It is then dipped in portions in clean cloths ten to twelve inches square, is wrung first gently, then vigorously,



until nothing more can be squeezed out. The last wringings contain the richest, most nutritious milk, which is at once ready for use.

A juice is also obtainable from the unexpanded flower spathes. This is termed "toddy," and may be evaporated, as is cane juice, into a sugar. This juice is also made into an intoxicating liquor through fermentation and distillation, known as "arrack."

The shell of the nut has a varied use as a table utensil, finger bowl, drinking cup, etc., and from it are made spoons, ladles, and a variety of other useful articles. The external husk or rind supplies a fiber termed coir, from which are manufactured ropes, door mats, and brushes. The cocoonut is most valuable also for its oil, which is extracted by

pressure or by boiling from the kernels, which are first broken up into small pieces and dried in the sun. These broken pieces are termed copra. It is estimated that one thousand full-sized nuts will produce five hundred pounds of copra, from which twenty-five gallons of oil may be extracted. The solid portion remaining after the oil is removed, cocoa stearin, is used for manufacturing candles. The oil is variously used,—for cooking, soap making, and for other commercial purposes. From the fresh young stems of the tree is prepared a farinaceous substance similar to sage. A Polynesian proverb says, "The man who plants a cocoonut, plants meat and drink, health and home, vessels and clothing for himself and his children after him."

A Noted American's Experience at Graefenberg

MOST of the readers of *GOOD HEALTH* must know that Graefenberg was the birthplace of hydrotherapy and the watercure. Here the peasant boy Priessnitz made the sagacious observations which enabled him to create a crude but efficient system of using water in the treatment of the sick. A century ago, this quaint little village nestled among the low mountains of Austrian Silesia, just in sight of the western border of Russia, was crowded with health seekers from all parts of the civilized world, drawn by the fame of the peasant boy doctor who was curing the "incurables."

Among the patients at this interesting rural Bethesda away back in the "30's" of the last century was a small German lad who was destined to become the founder of a great art publishing house and a pioneer in the development of fine chromo-lithography. We are happy to

be able, through the courtesy of the writer, our dear old friend of many years, Mr. Lewis Prang, of Boston, Mass., to present the following interesting sketch of a most unique experience as a patient under the care of the unlearned but inspired genius to whom the world of sick folks owe more than to any other person who has lived in modern times:

Priessnitz, a simple peasant in Graefenberg, a mountain village in Austrian Silesia, who started with nothing but a successful self-treatment of an inflammation resulting from the kick of a horse, had, at the time of which I speak, already conquered the prejudices of many people and the obstacles thrown in his path to licensed practice by the medical profession.

His sanatorium in Graefenberg was crowded with patients of all classes, not excepting physicians, military people of the highest rank, and at least one of the

Austrian princes, with whom I happened to room in the same building and to form a close acquaintance.

Three hundred odd guests sat down every day at the tables of the dining-room, and to see the huge portions of simple but excellently prepared food disappear, one would never have supposed that every one of the cheerful crowd was a subject more or less despaired of and dismissed as incurable by the med-

I was left in his hands. A bed was assigned to me in the room already occupied by two patients—German professors. Two flights of stairs led into the basement, containing a large bathing tank with a continual inflow of ice-cold water. The first day Priessnitz gave me personal attention. My treatment consisted of a couple of hours' dry pack in woolen blankets until perspiration ensued, then a bath in slightly tepid water. The next day the regular treatment, which I thought then terrible, was inaugurated, to be continued regularly as clock-work every day without a single exception during the following months.

It consisted of a dry pack at five in the morning until one; bath in ice-cold water; good dry rub; walk of an hour up a mountain; ice-cold douche from a height of some twenty to thirty feet; walking until two; then dinner, the best half-hour of the day.

The dry pack was not quite as simple as it reads. I was first rolled into two woolen

blankets reaching over head and foot, so that only my face was left free; with real German feather bed below and above, with a real feather pillow over my head, and all this tightened around me with a rope, mummy fashion. Every quarter hour a tumblerful of cold water (of excellent purity) was administered by the ever-attentive nurse.

Breakfast at seven consisted of a pint of rich milk and buttered bread, fed in bed, baby fashion. After the first half



Vincent Priessnitz, "The Father of Hydrotherapy"

ical faculty, the terrible Priessnitz being appealed to only as a last resource.

Terrible? Yes! Let me speak of his handling my case. I had been suffering since my fifth year with eczema, the result of exposure to a whirlwind. I had passed through the hands of the best medical practitioners of my native city, Breslau, without the slightest relief. He pronounced it curable, but he wanted two years for effecting a complete cure.

hour a perspiration began, which in course of time penetrated blankets, feather bed and straw bed, so that a tub was required underneath to prevent the water running through the ceiling onto the head of the prince, who roomed below.

With the stroke of the clock at eleven, the nurse laid his hands to the rope, uncoiled me, and led me quickly, wrapped only in the wet blankets, to the aforementioned bath in the basement, which during February and March was never free from lumps of ice. The bath was a relief, but did not hold me long. The dry rub and following glow proved most agreeable. Every hour at least the tumblerful of water was the order of the day. Water in crystal pureness welled up at many points of our mountain walks.

The last two months of my presence in Graefenberg I was in what Priessnitz called a crisis. My chest and back had caught up the eczema, so far confined to my face, in an aggravated form, and the usual treatment was contem-

plated at 9 p. m., with a pack in wet linen sheets as a fair companion for the rest of the night.

How the Treatment Affected Me

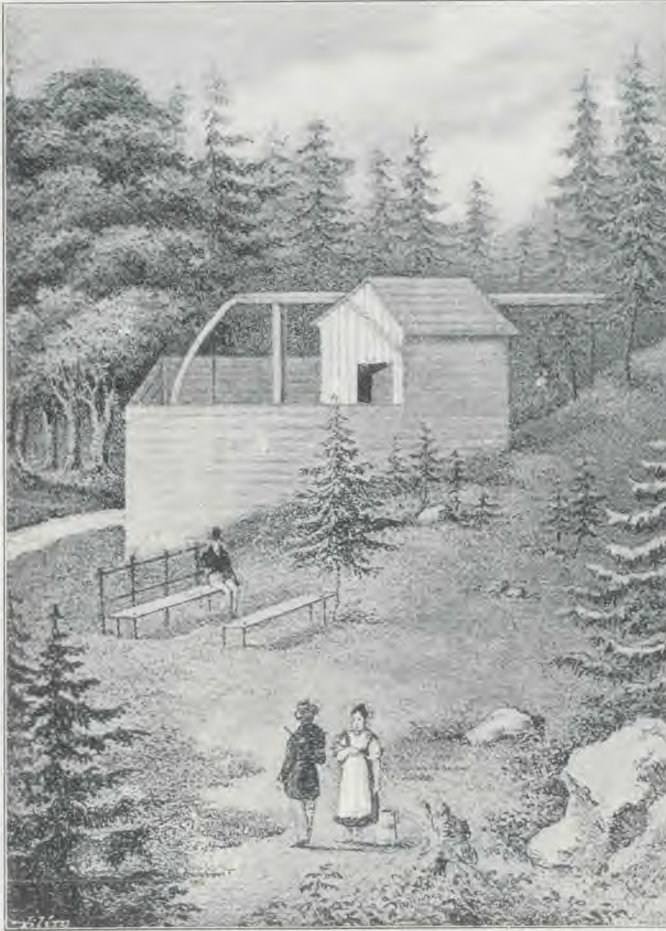
The question will be asked, how this treatment affected me. My answer to this is that I never felt better in my life than during the whole period of my stay, and that, although for financial reasons my father had to call me home during the crisis mentioned, yet instead of giving Priessnitz the desired two years, continuing treatment in a modified form at home, I got freed from the original periodical attacks which were a sore trial during my youth.

Priessnitz, as far as I could observe, made no use of the water in any other but its natural temperature, and the results reached by him were absolutely marvelous. He had the courage of his convictions.

An army physician of high standing, well known to every one of the guests for the pains he had to suffer under



The Dry Pack (From an old print)



The "Ice Cold Douche"

Priessnitz's treatment, permitted himself to take some medical herb tea to alleviate his pain. Priessnitz heard of this, and the next morning we found an announcement nailed to the door of the dining-room, reading:

"Any guest trying to improve upon the treatment prescribed, by using any drugs whatsoever, is requested to leave the institution."

The doctor took the advice to heart, did not leave, and a couple of months after thanked Priessnitz for a complete cure.

The Austrian prince who lived just below my room came to the institution two years previous to my coming, in a condition of perfect helplessness, drawn into a heap of aching bones by gouty rheumatism.

As I passed one day the open door of

his room, he called me in. I found him sitting at his writing desk, smiling. "See here, Louis," he said, "I am writing the first letter in ten years." He held a pen in his right hand, not exactly in the most approved style, as the gouty knots in his fingers had only partly given way, but he held it and performed the act of writing immensely satisfactorily to himself, and no doubt also to his family and friends.

I was informed that with a treatment similar to mine he got straightened out and left the institution in perfect health three years after the incident related above.

All this I experienced, as I said, seventy years ago. Priessnitz died young (fifty-two), no doubt from overtaxation in his marvelous, life-saving work. In 1873 I visited Graefenberg again. I

found the institution in the hands of a regular M. D., a man of absolute faith in the curative powers of hydrotherapy, but the manner of treatment, greatly modified, was less severe, and perhaps better adjusted to individual cases.

So far my experience with hydrotherapy in its earliest application and later experiences here in this country in some of the great and successful institutions connected with the Battle Creek Sanitarium, convince me that the United States is not behind Europe in successful application of modified and enriched forms of hydrotherapeutic treatment.

[The above article from the pen of Mr. Prang was first contributed by him to the Boston *Sunday Herald*, and afterward sent by the author to us for publication in GOOD HEALTH.—ED.]

The Apple

BY MRS. M. A. EMMONS

THE apple is chief among fruits. The delicate colorings and perfect outlines appeal to our sense of beauty, while the delicious flavors gratify our appetite.

There are innumerable varieties which, when ripe and properly selected, are

Cooking renders under-ripe fruit more digestible by softening the cellulose and converting the raw starch into a soluble form.

Apples when eaten raw should be made perfectly clean by immersing for a minute or two in boiling water, then



extremely wholesome and digestible. They contain abundant salts of potassium and sodium, as well as of lime, magnesium, and a trace of iron, which improve the quality of the blood and react favorably upon the secretions.

The use of fruit is valuable as furnishing nutriment, conveying water to the system and thus relieving thirst, as a laxative, as stimulating the appetite and improving the digestion. For these reasons the apple should be used as a common article of daily diet.

in cold water, and drying, to remove any dangerous bacteria or parasites that may be upon the fruit.

At this season of the year apples may be preserved for future use by canning or drying, or may be served in any of the following ways:

Preserved Baked Apples.— Wash, quarter, and core (without paring) enough apples to fill an earthen crock or stone jar, cover with a plate, and cook in the oven for several hours. Then seal in jars previously sterilized by ba-

king or boiling. Before serving, stand the jar in hot water until heated through, when one can have delicious, warm baked apples for breakfast.

Canned Sweet Apples.—In the canning of sweet apples, one or two juicy sour apples added will greatly improve the flavor.

Apple Tart.—Pare, core, and slice enough sour apples to fill a shallow granite baking-pan; sprinkle lightly with one cup of sugar; cover with the following paste, and bake thirty-five to forty-five minutes in a moderate oven.

Pie Paste.— $1\frac{1}{2}$ cups sifted flour, 4 level tablespoonfuls sterilized butter, $\frac{1}{4}$ cup ice-water, cutting the butter into the flour with a knife, and adding the ice-water, a few drops at a time to form a soft dough.

Scalloped Apples, or Brown Betty.—

- 3 cups chopped apples
- 2 cups stale bread crumbs
- $\frac{1}{2}$ lemon, juice and grated rind
- $\frac{1}{2}$ cup sugar (brown)
- 1 tablespoonful sterilized butter
- 3 tablespoonfuls water

Melt the butter in a sauce-pan, add the bread crumbs, and stir lightly until the crumbs are moistened with the butter. Divide the apples into two layers.

Place one-fourth of the crumbs on the bottom of the sauce-pan, then one-half of the apples and sugar, one-fourth of crumbs, apples, sugar, and water (and lemon if desired), and the remainder of the crumbs. Bake in a moderate oven thirty-five or forty minutes, leaving the dish uncovered during the last fifteen minutes.

Apple Juice.—Press the juice from good clean apples into a fruit or cider press; heat to 180° F.; fill sterilized jars or bottles, and seal. Place in a boiler of water with a temperature of 190° F. for thirty minutes. It is then ready to be packed in a cool dry place.

Lemon Apple.—

- 6 tart apples
- 2 tablespoonfuls lemon juice
- 6 tablespoonfuls hot water
- 4 tablespoonfuls sugar
- 1 teaspoonful grated lemon rind

Pare and core the apples, filling cavities with sugar and grated rind. Pour over these the lemon juice. Put hot water in the bottom of the baking-dish. Cover and bake until nearly done, and then remove cover and finish baking. Serve with or without whipped cream.



Dr. Lauder Brunton on Abuse of the Stomach

BY J. H. KELLOGG, M. D.

IN a recent lecture delivered before a class of medical students in London, Dr. Lauder Brunton, the great London therapist, made a vigorous protest against the outrageous manner in which the stomach is commonly treated. His remarks were so illuminating and delightfully entertaining that we feel sure our readers will be glad to peruse the following paragraphs which we quote from his excellent work entitled "Disorders of Assimilation, Digestion," etc., which embodies the lecture referred to and others of equal value and interest:

"Supposing, then, that in the stomach there are lumps of various kinds, with a normal quantity of smaller particles of indigestible material. At the end of six or seven hours—the time during which an ordinary meal should have been passed from the stomach into the intestine—the overloaded stomach feels the need of emptying itself, and tries to do so. But the greater curvature of the stomach is much lower than usual, and the organ has an unusual burden to eject through the pylorus. The condition of the stomach is very like Mark Twain's celebrated jumping frog. This frog's name was Dan'l, and as he could get over more ground at one straddle than any animal of his breed, his owner, who kept him in a box, was very proud of the frog's jumping powers, and was always ready to bet on them. One day a stranger strolled in and inquired about the contents of the box. After a look at the frog he said, rather scornfully, 'Well, I don't see any p'int about that frog that's any better'n any other frog.' This raised the indignation of the frog's owner, and he bet forty dollars that his

frog would outjump any other frog in Calaveras County. The visitor replied, 'I'm only a stranger here, and I haven't got a frog, but if I had a frog, I'd bet you.' 'Alright,' said the owner, 'if you'll hold my box a minute, I'll get a frog for you.' And off he went. But when the visitor was left alone, he opened Dan'l's mouth, and with a teaspoon filled him with shot nearly up to the chin, and set him on the floor. Then Dan'l's owner returned with another frog, and the two were put together with their forefeet even. One, two, three, and at a touch from behind, the new frog hopped off, but Dan'l simply gave a heave and hoisted up his shoulders, but he couldn't budge from the spot.

"Now this is just what the overfilled stomach does. Instead of sending its digested contents into the duodenum, it simply gives a heave and turns over. The lumps try to get through the pylorus, but they do not succeed; it will not let them through. In the meantime the alcohol in the stomach is undergoing fermentation, and so a quantity of vinegar is formed. By and by the stomach can not stand it any longer; it is bound to get rid of its burden somehow, and the whole is accordingly ejected through the throat, after which the man is very much easier.

"But sometimes he does not get rid of the whole of it; much foul stuff is left behind, and he still has an uneasy sense of discomfort about his epigastrium. What is he to do? The best thing he can do is to drink a lot of water. It had best be lukewarm, because very hot or very cold water does not give rise to vomiting, while lukewarm water does, as you will find in

the Revelation of St. John, where it says, 'So then because thou art lukewarm, and neither cold nor hot, I will spue thee out of my mouth.' Therefore you wash the stomach thoroughly out with lukewarm water. But even if you get the whole of it out, this stuff is so acid that it often sets the unfortunate person's teeth on edge—I can hardly call him a patient, perhaps I should call him the unfortunate sinner, as his sufferings are the result of his fault.

"In order to neutralize this acid, which is smeared all over the mucous membrane, and which is still giving rise to irritation, you add bicarbonate of soda to the liquid. By that means you relieve the person very much. Sometimes vomiting does not take place spontaneously, and the old Romans, who were still greater gourmands than we are, found that their stomachs would not hold all that they wanted to put into them. So if you go to-day to the Palace of the Cæsars of Rome, you will find a little place adjoining the banqueting hall where the Romans used to make themselves sick and empty their stomachs, so that they could go back to the hall and have some more. In this coun-

try, as a rule, when people have filled their stomachs too full, they do not follow the Roman example, and go back to the dining-room after emptying them, but, like the Romans, they sometimes seek relief by getting them emptied. And they probably attain their object in the same way as the Romans, either by putting the finger down the throat, or by tickling the fauces with a feather. There is one point to be observed about the finger, and it is that, unless the nail is cut very short, it may scrape the throat so as to leave it very uncomfortable for a day or two afterward. Therefore the nail should either be short, or the fauces should be tickled with something softer than the finger, such as a feather. A friend of mine told me that he was very liable to indigestion, and that it was his practice, immediately on returning from dinner, to use the stomach-pump and wash that organ thoroughly out. In this way he said he saved himself from a great deal of trouble and discomfort. But surely a much better plan than his is to prevent indigestion rather than cure it, and be content with a smaller quantity and with less variety of food."



Laughing Matters

First Verger—Do you 'ave matins at your church?

Second Verger—No; we 'as linoleums.—
The Sketch.

Customer—Have you any tartar emetic?

Druggist's Boy (rummaging through the shelves)—No, sir, but we've got something just as bad.

"Effie," said Margie, who was laboriously spelling words from the first reader, "how can I tell which is 'd' and which is a 'b'?"

"Why," replied Effie, wisely, "the 'd' has its tummy on its back."—*Harper's Weekly.*

A pupil in a school near Chatham square, New York City, thus defined the word "spine":

"A spine is a long, limber bone. Your head sets on one end and you set on the other."—*Lippincott's Magazine.*

Lady (after the tramp finishes eating)—It's merely a suggestion—the woodpile is in the backyard.

Tramp—You don't say! What a splendid place for a woodpile!—*Chicago Ledger.*

Room at the Top.—*Proprietor*—Mr. Adsum, the combination to our vault is exceedingly intricate, involved, and hard to retain. Do you want to tackle it?

Assistant Bookkeeper—I think I c-c-can hold it, Mr. Benson. I w-w-wear a $7\frac{3}{4}$ hat and I have an imp-p-p-pediment in my speech.

Londoner—Do you have any bread riots in New York?

American—Yes, right in our own family—mother's for graham and father's for whole-wheat.—*Brooklyn Life.*

A Mathematician's Dream.—The professor of mathematics, the father of a bright boy, took a nap one afternoon. Soon his wife heard the most heart-rending groans and found him sitting face in his hands.

"What's the matter, dear," asked Mrs. K. "I've had the most horrible dream," the professor replied. "I dreamed that our Char-

ley was a minus quantity under the radical sign, and I couldn't get him out!"

Teacher (to new pupil)—What's your name?

New Pupil—T-t-tommy T-t-tinker.

Teacher—And do you stutter all the time, Tommy?

New Pupil—N-n-no, m-ma'am, o-o-only when I t-t-talk.

Teacher—Can the leopard change his spots? Now, Tommy, answer me!

Tommy—Yes, sir; he can.

Teacher—Nonsense! How can he?

Tommy—Well, sir, when he's tired of sitting in one spot, he can change to another, can't he, sir?

Gentleman Lodger—I say, Mrs. Napper; I don't care for your bacon this morning! It doesn't seem fresh.

Mrs. Napper—Very strange, sir. The shopman said it was only cured last week.

"Well, it must have had a relapse."—*Punch.*

"I know I've got a vein of poetry in me, sir," confidentially asserted the young man to the editor. "And all I want is a chance to bring it out. What would you suggest, sir?" "I think you had better see a doctor, and have it lanced."—*Life.*

Said Pat: "Oi wish Oi knew whare I was goin' to die. Oi'd give a thousand dollars to know the place whare Oi'm goin' to die."

"Well, Pat, what good would that do you?" "Oi'd niver go near that place."

What Was Going On.—Little Bobby's Aunt Helen went to spend the night at Bobby's house. She slept in the room next to the nursery.

In the morning she heard Bobby making a great fuss about being dressed. She called through the register which is between the two rooms:

"Bobby! Bobby! What's going on in there?"

The answer came back promptly, in a pitiful wail: "My 'tockin's."—*Harper's.*

Simple Life Biographies

IV

Jack London

BY GEORGE WHARTON JAMES

IT must not be thought by the readers of these simple life biographies that because I present the side of the life of certain people that appeals to me, I agree in everything with the people themselves. Long ago I learned that if I saw the good in only those whose whole life and teaching I agreed with, or approved of, there would be few or none for me to write about. Men do not all agree, even on the most important questions. In politics they are Republicans, Democrats, Populists, Prohibitionists, Socialists, and Mugwumps. In home life some love quietness and country surroundings; others the bustle and the heart of a noisy city. In religion the most earnest and sincere men differ and hold the most contrary and diverse opinions. So in writing about Jack London, I do not wish it to be thought that I accept all he writes, or that his ideas are all pleasing to me.

Yet, he has lived so consistently the simple life in some regards that I feel the readers of GOOD HEALTH may well learn lessons of helpfulness from him.

London is practically a child of the slums, born of poor parents who were unable to care for him, so that his early life was spent in circumstances of great poverty, deprivation and distress. A newsboy on the streets of Oakland, a tramp, a day laborer, a shoveler of coal,—he was a hard and honest worker no matter where he was. As a coal shoveler he performed the work of two able-bodied men, and gained their enmity by depriving one of them of a job. Yet even then he would not shirk. He had agreed to do a day's work, and that meant work, not shuffling nor idling. He was honest with his employer, honest with himself, honest to his sense of duty.



And there you have the key-note to his whole character. Right or wrong in his thought, he is honest to his convictions, and in this day of truckling to the ideas of rich men in order to gain their favor and approval (and incidentally, some of their wealth), this is a thing to be most highly commended. Especially so is it in the case of a young man who has suffered great hardship and known the terrible grind of poverty from his earliest years.

Jack London is a writer of short stories of peculiar power. His genius is such that the wealthy men and women of the world would gladly pay him almost any price (of money and honor) if he would use his talent for them. Instead of that, he has fearlessly allied himself with the poor, and has shown how the wealth of the rich, sadly too often, has been made and is being made; viz., by the exploiting of the poor. He went down into the social abyss of London (which I know quite well myself) and wrote a book which fairly thrills with its deep compassion and pity for the poor and needy, the degraded and the lost. He shows how the evil social conditions forced upon the poor by those who have the control of things is largely responsible for their misery and degradation, and thus makes a forceful plea for their betterment. He has learned to think with a simplicity and directness that are strange and almost appalling to some people. He says there is something wrong somewhere in the civilization that makes it possible for one man to amass a fortune that surpasses the wealth of Cræsus, while another man, willing and able to work, can earn barely enough to keep himself and family from starvation, and if for any reason he should lose work for a few days, he is in danger of sinking into the slough of inextricable poverty, from which

nothing but death releases him. Jack London, therefore, has taken up the fight for the ones who are in the slough, has allied himself with them, and demands of our twentieth-century civilization that it rearrange conditions so that the rich man shall not get quite so rich, and the poor man shall have a larger and better chance.

Here is where I honor and respect him. I do not always agree with his ideas as to how the betterment of conditions may be brought about, but I do agree with him that a change is highly desirable. To be a friend to the poor and needy when he could have left them alone is, to me, to ally himself with the Divine One, who left His Father's throne and came in lowly guise to dwell among men, to be born of a poor virgin in a stable, cradled in a manger, and to take the yoke of the poor upon him. Christ never hobnobbed with the rich in order that he might enjoy their favors. When the rich young man came to him, He lovingly gazed upon him for his many good qualities, and then said: "Yet one thing thou lackest. Go sell all thy possessions and give the money to the poor." He was the friend of publicans and sinners, and went about among them doing good. In so far as Jack London has shown the Christ spirit, I love and honor him.

It is a story of simple endeavor, of hard and faithful work, how he arose from the mire of the gutter and the life of the tramp to the position in the world of letters he now occupies. Before he became a newsboy on the streets of Oakland, his step-father had lived for awhile on a farm in a lonely country place. Here one day the growing lad picked up a book which told the story of a poor boy who had risen to fame as an artist. It was a well-written book and full of imaginative fire, and the re-

sult was that the lad at once felt a new world of possibility open before him.

When he grew older and discovered that his employers were working him as hard as they could and paying him as small wages as they could, he began to ask himself whether this was right. And he decided it was not. The law permitted it, but the making of it *legal* did not make it morally right. Then he began to ask himself why he did such hard tasks. Why didn't he try to do something that was easier and that, when done, would bring him in larger sums of money. About this time he heard some one speak of how much a certain author had received for a book he had written. At once London decided that he would try to write a story. He had been to Alaska, to the gold fields, and had also had many experiences in whale fishing and the manipulation of seaboats, but the idea of using any of this material for his story did not oc-

cur to him. He did not know the first thing about writing. He barely knew how to write, let alone composing a story. Yet, with the one desire in his mind to earn more money by writing in order that he could support his mother in comfort, he set to work. The way in which he leaped to the front reads like a romance. His first stories, of course, were unsuccessful, but he kept hard at it, studying the writings of the best authors, and thus making himself familiar with the purest English. At last he found his field. The simple directness of his whole life now showed itself in his writings. He goes right to the heart of his subject; he is fearless both in thought and expression. It is nothing to him that he differs from other people. He thinks his own thoughts, and then, in the plain, simple language of a plain, simple man, expresses them so clearly and tersely that his style has already become almost classic.



THE CHILDREN'S COOKING CLASS

CONDUCTED BY LENNA FRANCES COOPER

DEAR CHILDREN OF THE GOOD HEALTH FAMILY:

The proper serving of food is almost as important as the proper cooking. A wholesome food may be served in such a way as to cause disgust, and if eaten under certain conditions, may cause indigestion. Scientists have recently shown that food which is relished is much more easily digested than food that is not relished. In other words, appetite is an important factor in digestion; hence it is very important that our foods should be served in such a manner as to make them attractive or appetizing.



Raspberry Nectar

Pawlow, the Russian scientist, has shown that the appetite may be appealed to in three ways; *i. e.*, by sight, smell, and taste. These scientific observations were made upon dogs, but we ourselves know how the sight of a luscious apple or the odor of a hot soup, or the taste of a delicious grape fairly makes our "mouth water." This is literally true—the mouth does "water," that is, the digestive juices are caused to flow. The food which is placed in the stomach without having been seen, smelled, or tasted, as has been proved by experiments, remains in the stomach some time before the gastric juice begins to flow; hence anything which will cause our food to be more attractive is not of minor importance. Clean table linen, dainty china, and bright silver may be a luxury, but they are certainly not an extravagance.

If possible, have fresh flowers or at least a growing plant upon the table each day. Anything which will make the room, the table, or the food more attractive, should be encouraged. Remember that the aroma from food is also appetizing. Hot foods, as a rule, give off more aroma than cold foods; hence soups and foods which are supposed to be served hot should be served very hot.

There are some foods which seem especially valuable as appetizers, containing little nutritive value, but being valuable chiefly for their pleasant flavors. To this class belong the fruits, although they are valuable also as intestinal antiseptics, on account of the acids which they contain. To this class also belong many of our vegetables, especially the broths and soups made from them, and the salads.

But it must be remembered that not all substances which are called appetizers are in reality so. Mustard, pepper, horseradish, spices, etc., are stimulants or excitants, but are only whips as it were to the stomach, which in time becomes tired and worn out from being thus unduly excited.

In these condiments are essential oils which give to them their flavor and pungency. These are in no way digested or changed, but must be thrown off by the excretory organs as waste products, irritating as they go along.

When we remember how a small bit of pepper in the eye or up the nasal passages continues irritation until kind nature supplies us with enough tears to render it possible to move it, we can understand something of the irritation produced along the alimentary tract, for these substances which are not dissolved and become tents of the stomach wherever they come in contact with the mucous lining.

ing until kind nature supplies us with enough tears to render it possible to understand something of the irritation produced along the alimentary tract, for these substances which are not dissolved and become tents of the stomach wherever they come in contact with the



Peach Sherbet

Neither is it necessary to resort to the bottled nostrums known as appetizers or tonics, for nature has given us a bountiful supply in the growing things about us of the real tonics that produce no harmful effects.

Below are some recipes for foods which might be termed "appetizers":

Fruit Soup

2 cups peach juice	1½ tablespoonfuls sago
1 cup cherry juice	2 tablespoonfuls sugar
1 cup apple juice	2 tablespoonfuls lemon juice

Drain the juice from a quart can of peaches, and one cup of juice from a can of cherries, and a cup of fresh apple juice or the juice from the cooked apples. Add to these the sago, and cook till transparent and soft. Lastly add the lemon juice and sugar. The amount of sugar may be varied according to the sweetness of the juices. Serve hot or cold.

Peas and Celery Salad

1 can peas	1 onion
1½ cups chopped celery	1 scant cup cooked mayonnaise
	1/3 teaspoonful salt.

Drain the juice from one can of peas. Add to the peas the grated onion, salt, and chopped celery. Mix all with the mayonnaise, the recipe for which appears in the May number.

Bouillon

1 cup bean broth	1 cup tomato juice
1 cup peas broth	½ onion
	½ teaspoonful celery salt

Wash one cup each of white beans and dried green peas, and put each to cook in one quart of cold water. Cook slowly until about one cup of liquor remains.



Peas and Celery Salad

Drain and measure. Add the clear juice from tomatoes, the grated onion, and celery salt. Cook for a few minutes, and serve hot.

Raspberry Nectar

$\frac{1}{4}$ cup lemon juice
4 tablespoonfuls sugar

$1\frac{3}{4}$ cups water
1 cup raspberry juice

Make a lemonade of the lemon juice, sugar, and water, then add the raspberry (red preferred) juice. Chill.

Peach Sherbet

1 quart peach purée
 $1\frac{1}{2}$ cups orange juice
 $1\frac{1}{2}$ cups sugar

$\frac{1}{4}$ cup lemon juice
1 cup water
Whites of 2 eggs

Select nice ripe peaches, pare and put through a colander enough to make one quart. To this add the orange juice, sugar, lemon juice and water. Turn into the freezer and chill thoroughly, then add the stiffly beaten egg whites and continue freezing.

Evolution of a Cigarette Smoker



"No words can tell the cigarette story so graphically as these pictures. I advise every cigarette victim to have his photograph taken every year, and put side by side in his room, when he can see the gradual deterioration of himself from year to year. If this does not startle him and bring him to his senses, no preaching will ever do it, for the pictures will be a sermon more eloquent than ever came from any pulpit."—ORISON SWETT MARDEN, in *Success Magazine*.

Intestinal Autointoxication

BY J. H. KELLOGG, M. D.

THE experiments and teaching of Bouchard in relation to autointoxication set a great number of investigators to work to find out the causes of this insidious, destructive process. At present there is general agreement among the leading pathologists of Europe, especially among the French and more recently among the leading German physicians, that the chief seat of autointoxication is to be found in the intestine and especially in the colon. Here, as Metchnikoff, Tissier, Combe, and numerous others have shown, are constantly growing great numbers of poison-forming bacteria which feed upon food residues which lie in the colon. These are mostly meat germs which abound in meat and are introduced with meat, milk, and eggs, and which, having once found entrance to the intestine, thrive and grow upon the undigested remnants of meat, fragments of hard-boiled eggs, and undigested curds of milk.

The poisons produced by these germs are now known to be the cause of biliousness; and many symptoms and disorders which are attributed to an inactive state of the liver are found to be really the result of the enormous quantities of poisons formed by these germs, which overwhelm the liver and render it incapable of carrying on its work successfully. These poisons also impose a large amount of extra labor upon the kidneys, so that in time these organs become worn out and a variety of symptoms arise from the accumulation of poisons in the blood and in the body.

Combe, in a remarkable work entitled "Intestinal Autointoxication," lucidly describes various diseases and symp-

toms which are directly attributable to intestinal autointoxication. It is the purpose of this article to enumerate the leading symptoms which this eminent writer has pointed out. The simple perusal of this list of symptoms should be sufficient to impress upon the mind of every reader the importance of discarding from the dietary all foodstuffs which encourage the production of poisons whereby the blood may be defiled and the whole body disordered.

Latent Autointoxication.—Emaciation, black circles about the eyes, headache, nervousness, irritability, yellow or dingy skin, loss of appetite, giddiness, weakness, fainting, palpitation of the heart, shortness of breath, itching, sometimes eruptions of the skin, clamminess, sadness, crying without cause, broken sleep, nightmare, neurasthenia, pseudo-meningitis, rise of temperature resembling malarial fever, asthmatic symptoms, looseness of the bowels, foul smelling stools.

Mild or Attenuated Form of Autointoxication.—Symptoms include those above enumerated, and in addition coated tongue, especially at the back part with red borders or tip; sometimes swelling and inflammation; bad breath, particularly after eating; bloated abdomen; capricious appetite; great thirst at and between meals; irregular stools, sometimes constipation; sometimes alternating diarrhea and constipation; stools sometimes dark, sometimes hard, at other times soft and pasty, often foul smelling; irregular desire for stool; movements of the bowels often accompanied by pain; vertigo; sudden attacks of weakness with pain in the bowels and the desire for movement, distress appearing

immediately after the movement; prolapse of the bowels, especially prolapse of the transverse colon; sometimes enlargement of the liver; mucus and membranes in the bowel passages; stools fetid and sticky.

Gastro-Intestinal Form of Auto-intoxication.—Obstinate vomiting or diarrhea; sometimes both vomiting and diarrhea; most common in chronic enteritis; attacks due to efforts of the body to eliminate an excess of poisons.

General Symptoms of Intestinal Auto-intoxication.—Drawn features; sad expression; skin yellow or pale; dryness of the hair; ends of the hair split; scaly scalp; eyes sunken; whites of the eyes yellow or dingy; eyelids often a little swollen, especially the lower lid; premature wrinkling of the forehead and cheeks, especially about the eyes and mouth; brown coloration of the eyelids, cheeks, or other portions of the skin; lips red and congested, redness increased during acute attacks, and sometimes swollen and hot; chest emaciated; abdomen bulging or contracted; the scalp dry, rough, scaly, often with a dirty grayish appearance; excessive development of the small hair; dryness and brittleness of the hair; nails soft and brittle, transverse notches indicating acute attacks of toxemia; sometimes white patches on the skin of the neck or armpits; glands in the groin enlarged, movable, but not sensitive; general perspiration or perspiration of the hands and feet, especially during sleep.

Digestive Symptoms of Auto-intoxication.—Loss of appetite; irregular appetite; abnormal appetite; often disgust for meat; desire for plaster, sand, twine, earth; ravenous appetite; feeling of tightness at the waist after meals; colic; abdomen swollen; veins of abdomen dilated, especially about the ninth and tenth ribs; in young children, liver often

enlarged; sometimes contraction of the pylorus; often contraction of the colon; attacks of vomiting and diarrhea; bilious attacks; attacks of jaundice; pain in the region of the liver; hardening of the liver; hemorrhoids; abdominal dropsy; gall-stones; rapid pulse; symptoms resembling angina pectoris; pulse throughout the body; sensations of heat; palpitation of the heart; pulsations of the aorta; abnormally slow pulse; sub-normal temperature; sensation of coldness in the extremities; coldness and blueness of the hands and feet; "dead" finger; nosebleed; high blood-pressure; swelling of the eyelids on awakening in the morning; swelling of the ankles; general dropsy; neurasthenic symptoms; migraine; sick headache; loss of memory, especially for proper names; epileptic attacks; tetany; mental disturbance; impoverished blood; pernicious anemia; senility; premature whiteness of the hair and beard; incapacity for muscular exercise; dwarf growth; nanism; various skin diseases, especially prurigo, itching, eruption, urticaria or nettle rash, flocculence, *acne*, boils.

From the above enumeration it is apparent that the poisons produced in the colon by the putrefaction of animal food substances are capable of giving rise to an enormous number of symptoms of the most exceedingly disagreeable character, and may lead, indeed, to fatal effects.

The long-continued action of these poisons, as Metchnikoff has shown, brings the body to a state which renders it a prey to the macrophages, the normal scavengers of the body, and leads these organisms to attack not only the hair and deprive it of its color, but also the brain, liver, kidneys, and spinal cord, setting up degenerations of various sorts leading to apoplexy and paralysis, and even causing destructive changes in the bones.

It is evident that one who desires to live long and well will seek in every way to discourage the growth of these poison-forming organisms in the colon; in

other words to prevent intestinal auto-intoxication by keeping the alimentary canal in a clean state through the use of antitoxic foods.

Health and the Schools

II.

What I Have Seen

BY CARRIE L. GROUT

I MIGHT say that my first studious visitation of schools was at a State school for feeble-minded children. It was awful, appalling, hopeless, and yet full of suggestiveness. My eager question was not, What can these poor creatures learn? but, What makes an idiot? To this question the answer has been slowly coming since that day, and we will consider it briefly in our next article.

My first systematic visitation of the public schools was made in eastern Pennsylvania, from Reading through the coal mining district to Scranton, including about twenty cities. The population of this territory has a large admixture of foreigners from southeastern Europe, of the sort generally considered dangerous on account of their ignorance and degradation, but to my surprise the children as they appeared in the public schools were mostly vigorous, teachable, manageable, and apt in picking up American ideas.

The first school in which I saw a marked physical inferiority was composed almost entirely of American children.

The next venture was in the coal mining district of Illinois, where the population is much of the same sort as in Pennsylvania, and the result was such as to make me wonder if our im-

migrants are still bringing the fresh blood which gives us strength, and if that decay which portends the death of nations is not already under way among us.

Since then a critical survey of numbers of schools in city and country, in ten States, has convinced me that, as a people, we do not yet know how to live so as to produce healthy children.

To enter a schoolroom and begin the search for robust, well-set-up children and have to reject this one on account of malformations, another because of lack of nourishment, another because of very apparent nervous irritability, and perhaps in the whole room of from thirty to fifty pupils find not more than two or three with all the evidences of perfect health, makes one discouraged when it happens constantly, and, worse still, to find in almost every room from one to four or five so defective as to be unable to work.

The investigations are made in the lower grades, as the higher grades are a survival of the fittest, the weak and defective having been crowded out. *Where?* Here is the report of an expert in a city numbering twenty-five thousand:

"I investigated the kindergarten and first three grades of our public school, with a view to ascertaining conditions among our school children.

"The number of children in the grades mentioned aggregated about three thousand. My investigations showed the following results:

"Forty-two children who had gone to school without any breakfast. Fifty-six who exhibited anemic condition, apparently due to lack of proper nourishment. Seventy-eight where the breakfast consisted of coffee only, or of coffee with bread only. Twenty-eight afflicted with adenoid growths, with marked astigmatism, the eyes needing proper examination. Thirty with habit of biting finger nails. Four cases in school with tonsilitis. Two enlarged glands in neck. Eight sore fingers. Three cases of pediculation. Two congenital hip disease. Six eczema. One suppurating adenoids with pus streaming from ears. Twenty-two children from homes harboring tuberculosis. Two cases of nosebleed.

"Relaxed skin and muscles and muscular twitching, headache and seeming nerve exhaustion, were some of the other indications of ill health noted."

This is in a city of wealth and culture above the average, with no manufactur-

ing, and with a very small laboring class.

In cities where manufacturing is the leading industry, the percentage of defective children is sometimes frightful, and in the rural districts, where we have been wont to believe conditions are naturally good, I have found the percentage of ailing and defective children often as large as in the city. I have in mind one family in the country which I visited many times, where there were five children. One was hopelessly imbecile, and the house and living conditions were as utterly bad as any I have ever seen in a city slum, with one exception, so that on getting out of the house, I was glad that there was pure air to breathe.

It can not be urged that the school injures the child, because these investigations are made among the first grades, where the little ones are fresh well-known fact that many children improve under the discipline of the school-room.

Fresh Fruit for the Table

ALL fruit for serving should be perfectly ripe and sound. Immature fruit is never wholesome, and owing to the large percentage of water in its composition, fruit is very prone to change; hence overripe fruit should not be eaten, as it is liable to ferment and decompose in the digestive tract.

Fruit which has begun, however slightly, to decay should be rejected. Juice circulates through its tissues in much the same manner as the blood circulates through animal tissues, though not so rapidly and freely. The circulation is sufficient, however, to convey to all the parts the products of decomposition when only a small portion has

undergone decay, and although serious results do not always follow the use of such fruit, it certainly is not first-class food.

If intended to be eaten raw, fruit should be well ripened before gathering, and should be perfectly fresh. Fruit that has stood day after day in a dish upon the table, in a warm room, is far less wholesome and tempting than that brought fresh from the storeroom or cellar. *All fruits should be thoroughly cleansed before serving.* Such fruit as cherries, grapes and currants may be best washed by placing in a colander and dipping in and out of a pan of water until perfectly clean, draining and dry-

ing before serving. If necessary to wash strawberries, they should be put into cold water, a few at a time, pushed down lightly beneath the water several times until entirely clean, then taken out one by one, hulled, and used at once.

Currants.—Large whole clusters may be served on the stem, and when it is possible to obtain both red and white varieties, they make a most attractive dish. Put them into cold water for a little time, cool thoroughly, and drain well before using. Currants, if picked from the stems after being carefully washed and drained, may be served lightly sprinkled with sugar. Currants and raspberries served together, half and half, or one-third currants and two-thirds raspberries, are excellent. Only the ripest of currants should be used.

Gooseberries.—When fresh and ripe, the gooseberry is one of the most delicious of small fruits. Serve with stems on. Drop into cold water for a few moments, drain, and pile in a glass dish for the table.

Cherries.—Serve on stems, piled in a basket or high dish, with bits of green leaves and vines between. Rows of different-colored cherries, arranged in pyramid form, make a handsome dish.

Plums.—Plums make a most artistic fruit piece, served whole and arranged with bunches of choice green grapes, in a basket or glass dish. A fine edge may be made from the velvety leaves of dark purple foliage plants.

Melons.—Watermelons should be served very cold. After being well washed on the outside, put on ice until needed. Cut off a slice at the ends, that each half may stand upright on a plate, and then cut around in even slices. Instead of cutting through the center into even halves, the melon may be cut in points back and forth around the entire circumference, so that when separated, each half will appear like a crown. Another way is to take out the central portion with a spoon, in cone-shaped pieces, and arrange on a plate with a few bits of ice. Other melons may be served in halves, with the seeds removed. The rough skin of the cantaloup should be thoroughly scrubbed with a vegetable brush, then rinsed and wiped, after which bury the melon in broken ice till serving time; divide into eighths or sixteenths, remove the seeds, reconstruct the melon, and serve surrounded with ice, on a folded napkin, or arranged on a bed of grape leaves. Do not cool the melon by placing ice upon the flesh, as the moisture injures the delicate flavor.

Oranges.—Serve whole or cut the skin into eighths, half-way down, separating it from the fruit, and curling it inward, thus showing half the orange white and the other half yellow; or cut the skin into eighths, two-thirds down, and after loosening from the fruit, leave them spread open like the petals of a lily. Oranges sliced and mixed with well-ripened strawberries, in the proportion of three oranges to a quart of strawberries, make a palatable dessert.



Chautauqua School of Health

The Wet Hand Rub

BY J. H. KELLOGG, M. D.

THERE is no procedure of more general value than this simple measure. It is applicable to almost every form of acute and chronic disease. It is of special service in all forms of chronic disease accompanied by anemia or low nerve tone and feeble vital resistance, the number of which is too great to mention. It may be so graduated as to constitute the most mild and gentle measure possible, or a most vigorous and thoroughgoing hydiatic procedure.

The cold wet-hand rub combines tonic, restorative, and derivative effects. The intensity of the effects produced depends upon the temperature of the water and the vigor of the friction. The colder the water, and the more vigorous and prolonged the friction, the more intense the effects. The feeble neurasthenic patient experiences, after an application of cold wet-hand rubbing, a delightful sensation of increased vigor and relief from malaise and mental and nervous weakness.

Wet-hand rubbing may be made a most useful means of reducing the temperature and increasing vital resistance in febrile cases where the patient is too feeble to endure the application of the cold bath or the cooling pack, or under circumstances prohibiting these measures. The lower the temperature of the water used, the more freely it is applied to the parts which are being rubbed, the longer the application, and the more frequent the repetition, the greater will

be the antifebrile effect produced. This means of reducing temperature is very appropriate for children and aged persons and in cases of typhoid and other continued fevers in which the cold immersion bath can not for any reason be employed, as in cases of intestinal perforation, myocarditis, nephritis, collapse, and other complications.

Wet-hand rubbing with water at a temperature of 85° to 95° is a quieting measure of value in feverishness due to nervous excitability rather than to actual elevation of temperature. When employed for this purpose, the rubbing should be very gentle, and the passes should be in the form of stroking, the direction being, as far as possible from the center toward the periphery. The surface may be left moist or may be dried by simply covering with a towel and gently passing the hand over the surface. The effort should be to avoid both thermic and circulatory reaction or stimulation of the heart.

Wet-hand rubbing consists simply in rubbing the cutaneous surface with the wet hand.

Water at 40° to 75°, with plenty of Turkish towels, a Turkish sheet, and a woolen blanket, are the only requisites for this bath. In beginning the application the attendant stands with his side to the couch, facing the patient, dips both hands into the water, then applies them, one to each side of the patient's face, covering as large an area as pos-

sible. Friction is made from the median line outward, the tips of the fingers sweeping over the brow and describing a sort of semicircle along the cheeks to the under side of the jaw. Repeat the movement three to six times.

Before wetting the face, a dry Turkish towel should be folded about the head in such a way as to protect the ears, and if the patient be a lady, the hair also, a precaution which will be much appreciated by nervous patients.

Next, the application is made to the chest, both hands being employed, first the upper part, then the sides of the chest being rubbed vigorously. After the chest has been gone over three or four times with quick, short movements and considerable pressure, the towel is thrown over the chest and the surface dried quickly, the rubbing being continued until the surface is reddened. The face and head are not to be dried until the end, as it is desirable that these parts be cooled by evaporation.

The prolonged application to the head is to protect from congestion; the application to the chest before proceeding to other portions of the body is to stimulate the heart and lungs to increased activity, thereby promoting reaction.

The arms, first one then the other, next receive attention. The attendant grasps the patient's hand with his left hand, while with the right he vigorously rubs the arm with long rapid strokes, reaching from the shoulders to the wrist,

his hand being kept cold and moistened by dipping in the basin after every four or six strokes. If the patient is fairly vigorous, he may hold his arm perpendicular while the attendant rubs with both hands.

On finishing the arms, the attendant rubs the hand between both his own, and ends with one or two smart blows upon the palm with the flat of his hand. The arm is quickly enveloped with a Turkish towel, the patient holding one end, and is rubbed until the reddening of the skin indicates a reaction.



Wet Hand Rub

The blanket is then drawn over it, and the other arm is treated in like manner.

Next give attention to the abdomen. Apply the friction first transversely, the rubbing being done alternately with the two hands, then in a circular manner, following the course of the colon. The thighs are next treated, but one being uncovered at a time. Then follows the treatment of the legs and feet, each of which should be rubbed until the circulation is well established.

The patient should now turn upon his face, and fold his arms beneath his forehead, thus drawing the shoulder-blades upward and outward, so as to flatten the dorsal surface as much as possible. The attendant then dips his hands and applies them first to the back and sides of the neck, extending the fingers around so as to reach the front of the neck. The upper part of the back, the shoulders, and the outer portion of the upper

arm should next receive attention, then the middle and lower parts, and the sides of the trunk. Lastly, apply to the whole length of the spine a few vigorous strokes. As fast as any part is dried it should be covered.

The treatment concludes with an application to the feet of water at the same temperature as that applied to the head. The ankles and dorsum of the feet should be vigorously rubbed, and the sole percussed with energy, but not rubbed, on account of the unpleasant tickling sensation induced.

Not more than five to fifteen seconds should be occupied in rubbing any part with the wet hand before the application of the towel. If the rubbing is insufficient to produce reddening of the surface, light spitting or percussion should be applied after drying. Good reaction should be secured in each area treated before proceeding to another portion of the surface.

The skin must be warm at the time of the application. An excellent hour is before rising in the morning.

The temperature employed and the

duration of the treatment must depend upon the individual case. The temperature most frequently employed is from 65° to 75°, or the ordinary living-room temperature. Generally the hands of the attendant are simply dipped into water so as to moisten their surfaces, no more water being applied than is natu-

rally carried by the moist hand. In certain cases, however, as when this procedure is employed in a general antipyretic or antifebrile measure, a larger quantity of water than this should be employed.



Wet Hand Rub (Drying Arm)

The bed of the patient in such cases should be protected by a rubber blanket and the patient should be wrapped in a Turkish sheet. Instead of simply dipping his hand into the water, the attendant cups his hand in such a manner as to dip up all the water possible. This is quickly thrown upon the portion of the surface under treatment at the moment which is at once vigorously rubbed. This alternate deluging and rubbing of the skin may be repeated from one to half a dozen times. In certain cases hot instead of cold is employed.



Autumn Home Hygiene

BY KATE LINDSAY, M. D.

AFTER the July and August heat the shorter days and longer, cooler September nights suggest that autumn is near with its harvest richness of grains, fruits, nuts, and vegetables. The forest's foliage is no longer green and growing. The red, yellow, and brown leaves suggest harvest and fulfilment of the growing spring's promise. The work of the leaf is ended. It has faithfully gathered the nutrient, gaseous, food-forming elements from the atmosphere from which have been evolved the food for man and beast by the living plant cells, at the same time renewing the atmosphere by giving back to it the oxygen freed from carbon and ready for the animal creation to inhale again in breathing.

The dying vegetation now gives off foul gases and contaminates instead of purifying the air. The leaves fall, the grass and all other annual plants die and decay. The autumn winds drift this dead vegetation into the hollow places in the earth, and the rains of autumn beat it into moist, decaying heaps, and wash the foul broths of these fermenting masses into the open water supplies. The streams and other bodies of water become impure, and typhoid fever, dysentery and other bowel disorders increase. Many biting and disease-carrying insects, such as flies and mosquitoes, increase in numbers, and the colder evenings lead them to seek house shelter. So every autumn there is an increase in malaria and other insect-borne disorders. The house-keeper shuts the windows and doors to keep out the cold night air. The overheated out-of-door laborer suffers from a daily evening chill unless he is careful to exchange his wet

soiled clothing for dry clean garments when his day's work is done. Colds are frequent; bronchitis and pneumonia cases develop. The schools open and epidemics of air-borne infectious diseases, such as grippe, whooping-cough, measles, scarlet fever, diphtheria, and similar disorders, increase, especially among children, while their elders complain of stiff joints and sore muscles from acute and chronic rheumatism and neuralgia. The man or woman of twenty-five or forty feels stiff and more indisposed for active exercise than the well-preserved man of threescore and ten. It must have been this premature lessening of working activity which suggested the chloroforming idea and which makes it so hard for the working man and woman of forty-five or fifty to find employment when out of work.

As the autumn advances there is an increase of the above-mentioned infectious diseases which are for the most part due to preventable causes. The one important question is, What can be done in the way of home hygiene to avoid all these disorders and save human life and suffering. In other words, what can the average family do to prevent the annual autumn visitation of typhoid fever, dysentery, malaria, and other fall and winter epidemic disorders. The infectious diseases must needs have a soil and seed for the germs of infection to get into the human body and cause the disorder. The soil is found in a foul alimentary canal filled with fermenting food elements and stomach and intestinal catarrhal morbid secretions. The seeds of these disorders are usually planted in this favorable soil by drinking unclean water or

eating infected food. Often this infection may come from a single indulgence in unclean food or drink as was proved recently when college students indulged freely in oysters at a banquet where the infected bivalves were served raw, and many cases of typhoid fever developed in a few days after.

Where the contamination is less and the patient does not indulge so freely in the infected food or drink, and the health is fair, a longer time may pass before the symptoms of typhoid fever appear,—then only after a chill from cold or dampness or some error in diet which lowered the body's power of resistance. Keep the digestion good, eat only clean food, breathe pure air, and drink clean water, and there is no reason why this universal filth disease with the thousands of cases yearly reported and the hundreds of deaths, should not be a thing of the past in every part of America, as it is in Hamburg, Germany, where within the last ten years this disorder, as well as cholera, has been practically stamped out. Screens, drainage, and destruction of mosquitoes have stamped out malaria and yellow fever in Panama, and made possible the building of the great ditch which is to connect the oceans of the East and West. If it were not so it is doubtful whether the great canal would ever have been dug. Yet malaria and yellow fever in Panama and other tropical lands are no more easily prevented than would be malaria in New Jersey or yellow fever in New Orleans and Pensacola. Pennsylvania wasted millions on her sham-built capitol, which, spent in securing for her people a clean water supply, might have saved hundreds from typhoid fever infection and lessened mortality from this one disorder by the scores.

Yet so slowly does the sanitary idea reach and influence the thoughts and actions of the masses that Pennsylvania and many other localities in this free country go on expecting the yearly autumn epidemic of typhoid fever, dysentery, and other disorders contracted from foul water.

No one feels any interest in the matter, or asks what should be done to avoid these easily preventable disorders. Even the well-to-do farmer, who perchance has buried two or three members of his family from these plagues, still allows foul things to accumulate around the top of his open well, and the filth of out-house and barnyard to run into it for the want of spending fifty or a hundred dollars to make the well top water-tight with stone and cement, and fence the stock away from the surface near the water supply. Nurses and doctors, sickness, death and funerals are expensive. But Providence has to assume the responsibility for these mysterious afflictions, and the germs still percolate into the well every fall and spring, and the autumn epidemics continue, and bills for sickness increase. The United States is famed abroad for its wanton extravagance,—and certainly we are extravagant in the matter of our own life and health. Japan has banished sickness from her army. What can inspire the free-born American citizen with the idea that he can banish illness from infectious disorders by procuring for his household protection from unclean water, impure air, and improper food. Who can teach the nation that neither winter's cold, summer's heat, autumn's changeableness and dying vegetation, nor the uncertain weather and foul spring floods, are dangerous if each is prepared to relate himself properly to the seasons as they succeed one another.

In the autumn, keep the air clean, keep all decaying vegetation and foul excrement away from around the home. Do not permit decomposing masses of organic filth to become wet and decay near the premises. Mow all weeds and grass and carry them away to be burned. Where there are rag-weeds and fire-weeds and other hay-fever-producing plants, this matter of mowing before the pollen forms is of the utmost importance. The streams and wells are usually low in the autumn and a prolonged drouth is often succeeded by heavy rains. The surface of the earth in dry weather, especially in the autumn, becomes very foul, and the first rainfall washes all this dirt into the open wells, springs, or streams, unless some special provision is made to protect these sources of home water supply from the filthy deluge.

A few years ago the writer was called to visit a country home where four of the seven members of the farmer's family lay ill of typhoid fever. The first move, of course, was to find the source of the infection. A hillside spring was found below the barnyard and near the edge of the stream into which flowed the sewage of a large village above. Besides this, there had been unusually heavy rains for over twenty-four hours with rise of the stream above the spring, which carried away floods of filth from the barnyard. The result was four cases of typhoid fever in the family, one death directly from the fever, and another two years later from pulmonary tuberculosis which began to develop shortly after the fever convalescence. Many other cases were reported in the neighborhood.

Yet a few days' work spent in digging a ditch to carry off the barnyard seepage around and below the spring, a few bags of cement and loads of stone to wall in the spring and prevent high-

water inflow, has made this fountain a safe water supply ever since. "Truly, for want of knowledge the people perish."

The days of fall are often warm and the evenings cold and damp and frosty. The out-of-door worker often finds his garments wet and soiled from rain and perspiration. He is tired after his day's toil, and fails to replace his damp, soiled garments by dry clean ones. This results in a chill, and the young farmer who should be lithe and active for years to come, has an attack of inflammatory rheumatism from which he becomes a stiff old man, with added complication of an organic heart disorder, to be ever after a semi-invalid. Or he may contract pneumonia, and if he survive this disease, die a few years later of tuberculosis. There is also the danger of close, damp rooms before the fires are started. It is the worst of sanitary economy to bottle up foul air for its warmth. Better cold outside pure air than chill inside foul air. Warm the rooms by an evening fire and open the windows. Keep out the flies and mosquitoes by suitable screens, and by covering protect all food from dust, which is always more or less infectious.

Avoid all spoiled foods as well as an over amount of good food. There are many false ideas about the cold season dietetics, among others the prevailing notion that when cooler weather sets in a more nutritious diet and greater amount of food is required, when often the reverse should be followed. The farmer does not work so hard or spend so much time in the open air. His children are at school in overheated, badly ventilated rooms. All the indoor workers of every type, from the housekeeper to the sweatshop slave, work in a summer temperature minus the open door and the windows' inflow of outside air. Only

woodmen, teamsters, and a few other outside workers are taking in increased oxygen supply or using up tissue cells either by combating cold or by hard work. The great majority are leading more inactive lives in an indoor summer temperature, and really need less food in winter than in summer. The bear and other hibernating animals stop eating in

winter. In fact, all wild animals must exist on a scant food supply. Mankind gormandizes and then, in spite of a lenten fast, suffers from spring fever. "A word to the wise is sufficient." It is the amount of energy used up which should determine the amount of fuel fed the human machine as well as that of any other furnace.

A Contrast



This picture illustrates well the old way of cooking and the new. The old way demanded a host of black pots and pans of smoking, steaming meat. No thought was given to the care of the eyes, and as the drawing shows, the housewife as often as not worked in her own shadows and those of the smoke cloud. The new way changes this. It dispenses with meat, and consequently a great deal of superfluous heat and all smoke. Due attention is given to light, and electric and gas lamps take much of the strain from the eyes. The kitchen, too, is properly ventilated, so that one is not in constant danger of prostration from want of fresh air.

The Walking Club

A Walkers' Anthology

I.

ONE of the pleasantest things in the world is going a journey; but I like to go by myself. I can enjoy society in a room; but out-of-doors nature is company enough for me. I am never less alone than when alone.

"The fields his study, nature was his book."

I can not see the wit of walking and talking at the same time. When I am in the country, I wish to vegetate like the country. I am not for criticizing hedgerows and black cattle. I go out of town in order to forget the town and all that is in it. There are those who for this purpose go to watering-places and carry the metropolis with them. I like more elbow room, and fewer incumbrances. I like solitude, when I give myself up to it, for the sake of solitude; nor do I ask for

" . . . a friend in my retreat,

Whom I may whisper, Solitude is sweet."

The soul of a journey is liberty, perfect liberty, to think, feel, do just as one pleases.—*Haslett, "On Going a Journey."*

I come upon it suddenly, alone—

A little pathway winding in the weeds
That fringe the roadside; and with dreams
my own,

I wander as it leads

Full wistfully along the slender way,
Through summer tan of freckled shade and
shine,

I take the path that leads me as it may—
Its every choice is mine.

And though it needs must lure me miles on
miles

Out of the public highway, still I go,
My thoughts, far in advance in Indian file,
Allure me even so.

So—on, with quickened breaths, I follow still—
My *avant-courier* must be obeyed!

Thus am I led, and thus the path, at will,
Invites me to invade

A meadow's precincts, where my daring guide
Clambers the steps of an old-fashioned stile.
And stumbles down again, the other side,
To gambol there awhile.

In pranks of hide-and-seek, as on ahead
I see it running, while the clover stalks
Shake rosy fists at me, as though they said—
"You dog our country walks.

"And mutilate us with your walking stick!—
We will not suffer tamely what you do
And warn you at your peril, for we'll sic
Our bumble-bees on you!"

But I smile back in airy nonchalance,—
The more determined on my wayward quest,
As some bright memory a moment dawns
A morning in my breast—

Sending a thrill that hurries me along
In faulty similes of childish skips,
Enthused with lithe contortions of a song
Performing on my lips.

—*James Whitcomb Riley, "A Country
Pathway."*

THERE are days which occur in this climate, at almost any season of the year, wherein the world reaches its perfection, when the air, the heavenly bodies, and the earth make a harmony, as if nature would indulge her offspring. . . .

These halcyons may be looked for with a little more assurance in that pure October weather, which we distinguish by the name of the Indian Summer. The day, immeasurably long, sleeps over the broad hills and warm wide fields. To have lived through all its sunny hours seems longevity enough. The solitary places do not seem quite lonely. . . . The tempered light of the woods is like a perpetual morning, and is stimulating and heroic. The anciently reported spells of these places creep on us. The stems of pines, hemlocks, and oaks, almost gleam like iron on the excited eye. The incommunicable trees begin to persuade us to live with them, and quit our life of solemn trifles. . . .

These enchantments are medicinal, they sober and heal us.—*Emerson, "Essay on Nature."*

THE night has winter in its roughest mood,
The morning sharp and clear. But now at
noon

Upon the southern side of the slant hills,
And where the woods fence off the northern
blast,

The season smiles, resigning all its rage
And has the warmth of May. The vault is
blue

Within a cloud, and white without a speck
The dazzling splendor of the scene below.

. . . . I tread
The walk still verdant, under oaks and elms,
Whose outspread branches overarch the glade,
The roof though movable through all its
length

As the wind sways it, has yet well sufficed
And intercepting in their silent fall
The frequent flakes, has kept a path for me.
No noise is here, or none that hinders thought.

Stillness, accompanied with sounds so soft,
Charms more than silence. Meditation here
May think down hours to moments. Here
the heart

May give a useful lesson to the head,
And learning wiser grow without the books.
Cowper, "The Task."

Most sweet is it with unuplifted eyes
To pace the ground, if path be there or
none,
While a fair region round the traveler lies
Which he forbears again to look upon;
Pleased rather with some soft ideal scene,
The work of fancy, or some happy tone
Of meditation, slipping in between
The beauty coming and the beauty gone.
—*Wordsworth, "Most Sweet Is It."*

I SAW the curl of his waving lash,
And the glance of his knowing eye,
And I knew that he thought he was cutting
a dash
As his steed went thundering by.

And he may ride in the rattling gig,
Or flourish the stanhope gay,
And dream that he looks exceedingly big
To the people that walk in the way;

But he shall think when the night is still,
On the stable-boys' gathering numbers,
And the ghost of many a veteran bill
Shall hover around his slumbers;

The ghastly dun shall worry his sleep,
And constables cluster around him,
And he shall creep from the wood-hole deep
Where their spectre eyes have found him!

Ay! gather your reins, and crack your thong,
And bid your speed go faster;
He does not know, as he scrambles along,
That he has a fool for his master;

And hurry away on your lonely ride,
Nor deign from the mire to save me;
I will paddle it stoutly at your side
With the tandem nature gave me.
—*Holmes, "Reflections of a Proud Pedestrian."*

IN summer we live out-of-doors, and have only impulses and feelings, which are all for action, and must wait commonly for the stillness and longer nights of autumn and wholly new life, which no man has lived; that even this earth was made for more mysterious and nobler inhabitants than men and women. In the hues of October sunsets, we see the portals to other mansions than those which we occupy.—*Thoreau, "Week on the Concord."*

Health News

THE municipality of Boston owns and manages eight public baths, six of which have gymnasiums connected with them. Total baths last year, 703,527, averaging 58,627 a month, the number being about equally divided between winter and summer months. "It would appear from the uniformity of the figures," says the *Arena*, "that to a large extent the privileges were availed of by a fixed number of citizens who used these baths for purposes of cleanliness, and it is to be supposed resulting in better health.

DEATHS from plague in India during 1906 numbered 56,619. Acting Assistant Surgeon Eakins, of Calcutta, says that these figures are comparatively low; 1,777 inoculations were performed and only one death was reported of those inoculated. Rat extermination is being vigorously carried out in many places.

HOTEL keepers in the Klondike say they never have used celery equal to that now grown in the Yukon. Some two hundred tons of vegetables were grown there last year, including potatoes, cabbage, turnips, carrots, beets, celery, etc.—*Chicago Tribune*.

THE conductor's shrill nerve-racking whistle is a thing of the past in Chicago. The City Railway Company in ordering its disuse deserves the gratitude of its patrons and the commendation of every one interested in the anti-noise crusade.

THE Pure Food Bureau of the New York State Agricultural Department has determined to enforce a hitherto unenforced provision of the pure food law of 1903 having reference to the sale of ice-cream. Hereafter, skimmed milk or gelatin with aniline dyes can not masquerade as ice-cream without the danger of the prosecution of the dealer. Persons selling ice-cream which is adulterated must label the article, showing the ingredients of the mixture, and must not call it or sell it as ice-cream, but as a substitute for, or imitation of, ice-cream. Where gelatin is used the department will consent to the use of the term, "gelatinized ice-cream."

A NEW YORK State law went into effect September 1st which makes it a crime for

any one filling a physician's prescription, or selling an article for use in medical practice, to substitute any drug or article for that called for. The old law possessed little efficacy because prosecution depended on its being shown that substitution had caused or endangered human life.

THE tallest woman in the world, Marie Fassnauer, who is eight feet in height, and weighs 378 pounds, lives on a diet of fruit, cereals and dairy produce.

THE imperial board of health in Germany is discussing the serious aspects of the dust question. The automobiles whirl up such clouds of dust that the parks and boulevards have ceased to be breathing-places where the poor and middle classes can go for fresh air.—*Woman's Medical Journal*.

PROFESSOR JAFFA, of the California State University, says in a bulletin just prepared for the United States Department of Agriculture, that ten cents' worth of peanuts contains more than twice the protein and six times the amount of energy contained in a porterhouse steak.

THE death-rate from cancer in Chicago increased 232 per cent between 1866 and 1905, according to Dr. G. Cooke Adams, who is compiling statistics and applying them to his theory of diet as a factor in the cause of cancer. The cancer death-rate among the German residents of Chicago is the highest in the world. Of the Germans dying in Chicago at the age of forty or over one in every four dies from cancer. Dr. Adams attributes the astonishing increase in the cancer mortality of the foreign born to the fact that the laboring classes, on coming to Chicago, indulge extensively in preserved meat foods of the poorest quality.

HEALTH Commissioner Evans has begun systematic efforts to reduce the number of consumptive cases in Chicago. He announced that tuberculene would be issued free to physicians, and if necessary the diagnosis would be made by physicians from the health department.—*Chicago Tribune*.

EDITORIAL

The Weak Spot in Modern Education

THE able superintendent of the Chicago city schools in an exceedingly interesting paper recently called attention to the fact that the high school fails of its mission because its purpose is wrong. As at present organized, the evident object of the high school is to fit pupils for the university rather than to prepare them for life. The justice of this criticism will be recognized by every one who has taken the pains to examine the curriculum of the four years' high school course. The boy or the girl who has spent four years in dilettante study in the high school is very little better prepared to enter upon the life duties of the average man or woman than at the beginning of the course. In fact, large numbers are actually less fit after graduation for the work which they are to do in the world than when they entered the course. The general tendency of a long course is to weaken initiative, to impair originality, to lessen both the aptitude and the disposition to engage in manual pursuits which the majority of men and women must follow for a livelihood.

But the weakest point of all is the neglect to instruct pupils in those things which are of most vital consequence to each one individually, to the nation, and to the race. Instruction in physiology and hygiene is of the most elementary and inefficient character. It is important for the child to acquire a good command of his mother tongue; but it is far more important that the pupil should learn how to make the most of his constructive faculties through the use of his hands, guided by good judgment, practice, thought, sense, and backed up by a patient, industrious disposition.

It is especially important that he should know how to preserve his health and how to avoid disease. It is perfectly proper to go further and say that every intelligent person should know enough of the care of the body and of disease to be able in an emergency to apply sensible and appropriate measures, at least temporarily until professional services may be secured.

It would certainly seem reasonable to demand that every person who lays claim to liberal culture, or who holds a university degree in any department of learning, should possess as an essential element of knowledge a fair knowledge of anatomy, a thorough knowledge of physiology, and a thorough knowledge of public and individual hygiene. No woman should be allowed to graduate from either a high school or a university without having received thorough instruction in the care of children, a subject which is altogether ignored in the training of the schools, and for which so inadequate provision is made that the majority of women are compelled to enter upon the duties of motherhood with almost no practical instruction whatever respecting the proper discharge of the duties which they have assumed.

Herbert Spencer, who wrote so admirably on many subjects, recognized this great oversight in modern education, and wrote: "If by some strange chance not a vestige of us descended to the remote future save a pile of our school books or some college examination papers, we may imagine how puzzled an antiquary of the period would be on finding in them no sign that the learners were ever likely to become parents. 'This must be the curriculum for

the celibates,' we may fancy him concluding. 'I perceive here an elaborate preparation for many things, especially for reading the books of extinct nations and of co-existing nations (from which it seems clear that these people had very little worthy reading in their own tongue), but I find no reference whatever to the bringing-up of children. They could not have been so absurd as to omit all training for this gravest of responsibilities. Evidently this was the school course of one of their monastic orders.'"

A MISCHIEVOUS COLON GERM

Research Shows *Bacillus* of Colon to Be One of Man's Most Dangerous Enemies

MODERN bacteriological studies have shown that the colon bacillus is a much more mischievous organism than was formerly supposed. This germ is found in the colons of all warm-blooded animals except in the arctic regions. It grows prodigiously, and sometimes constitutes a large share of the total bulk of the fecal matters. The number produced daily has been estimated as thousands of billions. This germ is nearly always found present in gall-stones, while it is believed that the formation of gall-stones is simply a defensive effort on the part of the body,—a means adopted for the isolation of the bacteria.

The colon bacillus is sometimes found in the contents of the stomach, and it has even been observed in the mouth. It is generally confined, however, to the intestine. In normal persons, it should be found almost exclusively in the colon, but under conditions which favor its growth it may extend into the small intestine, reaching as before intimated, the gall-bladder and the biliary passages, in which it often gives rise to inflammations and abscesses.

Peritonitis, inflammation of the bladder, pleurisy, chest abscesses, and a disease closely resembling typhoid fever, are only a few of the maladies which have been traced to colon germs.

A question of great practical interest is, What is the origin of these virulent organisms?—The two main sources of colon germ infection are milk and meat. Milk, unless sterilized, always contains colon germs in great abundance, and even when sterilized the spores are present and may develop in the intestine. Meat also contains the colon germ, along with various putrefactive organisms, in great numbers. When eaten in the form of steak, roast beef, or chops, the central portion of the meat contains vast multitudes of living germs, as the temperature to which the meat is subjected in cooking is not sufficiently high to destroy these very resistant germs. Contamination with colon germs may also occur through the medium of the clothing, the hands, and other means; but contamination through the use of the flesh of animals and milk is undoubtedly the most common and dangerous source of infection.

Milk should always be sterilized; and meat to be rendered safe should be cooked at a temperature of 240° for thirty minutes. Meat can not be sterilized by the ordinary cooking processes.

THE RAW FOOD DIET

Everything That Is Not Cooked by the Sun Should Be Prepared over Stove Fire

RAW grains can not be digested in the human alimentary canal to any great extent. Half an ounce of raw starch is all a man can digest in a day, and when one takes up to two or three ounces, 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. They are already cooked in the process of creation. They are prepared, cooked, all cooked, if you like them; all the preparation necessary for assimilation in the human body. Fruits are cooked in the sun; as the Mexican says, *Casida in el sol*. Do you want the fruit hard (*dueros*)? or cooked in the sun (*casida in el sol*)? Ripe fruit

is cooked fruit, cooked by the sun. Cooking done in the cookstove is done by the sun just as well as that that is cooked on trees, hanging out in the sun. It is the sunlight that came into the fuel as it grew that comes out again when it burns; it is the very same sunlight that furnishes the heat and energy that cooks the fruit; so it is much the same whether it is cooked on the tree or in the cookstove.

WINTER UNDERWEAR

Cotton Next to the Skin with Woolen
Under Garments Over Proves
Most Healthful

THE best kind of winter underwear is cotton. Linen has nothing like the wearing qualities of cotton, is in no way better, is not quite so warm as cotton, and is slightly more hygroscopic (moisture gathering), but the difference is so slight it is of no practical importance at all.

Put cotton next the skin, and over the cotton just as many woolen garments as you want for warmth. Cotton is perfectly wholesome with as many wool garments outside as necessary. For warmth it is far better to add woolen undergarments than heavy outside wraps: in the first place, it is a matter of great economy, because one can get the same amount of warmth at very much less cost in the form of underclothing. In the next place, it is better because these undergarments, absorbing the secretions of the body, can be changed every day, and be kept always fresh. Few can afford to buy a new set of clothes every day. If you do have fresh suits of outer clothing, the one you do have has not been washed; but the underclothing can be washed, and you can have a fresh suit every day at no very large expense; at any rate, by having two or three sets, you can make one set rest a day, expose it to the air so that it gets aired out, when it is almost as much changed as though it had been actually washed. Contact with the air, especially in the sun, is a great vitalizer.

Changing the clothing in this way is a great help to the feeble person. Don't be afraid of some of the things you see in the newspapers about changing the underclothing too often. In one article a writer suggested that the underclothing should not be changed during the entire winter. One wonders if he would take no bath from fall to spring. We have heard of a man who never bathes at all. He says he has not taken a bath for three years and a half, and is never going to take a bath again. He thinks the skin takes care of itself, so it is unnecessary to bathe. If this is true, man certainly differs from almost every other animal. There is no other animal that does not take a bath except snakes and toads, and they shed the whole skin very frequently.

The human being does not dispose of his skin so readily when it is covered with this artificial skin, his clothing. If we did not wear any clothing, we would not need to bathe so often; but the clothes that are worn take up secretions that ought to be carried off by the air and destroyed by the sun, and these secretions are retained by the clothing.

FACTS ABOUT CANE-SUGAR

Is a Stimulating Condiment That Prevents
Hard Work and Produces Catarrh
of the Stomach

Professor Féré, of Paris, says that sugar is a condiment rather than a food. He has been making experiments upon himself which show that when a man eats sugar, his power to work is increased only while the sugar is in his mouth, or only while the sweetness remains in the mouth. That sensation is stimulating, and he is enabled to do somewhat more work under the stimulus of the sweetness of the sugar; but as soon as the sugar has been swallowed, the effect disappears, and under the influence of sugar a man can do less work in an hour or in a day than he can without the sugar; that he can do less work with

sugar in one hour and in one day than he can without it. This is cane-sugar—not maltose or malt honey, because that is a natural sugar, but cane-sugar is not a natural food for human beings. It is proper food for cows, because it is a grass sugar. It is found in grass, so is a proper food for herbivorous animals, but really is not proper food for human beings. There is no doubt that cane-sugar is responsible for a large amount of catarrh of the stomach, gastritis, and other mischiefs from which human beings suffer. Professor Féré found also that this same thing was true of cocoa, cola, tea, coffee, alcohol, and tobacco, that immediately after taking them one would feel as if he could do more work, but in an hour or a day, the amount of work done was less than could be done without it.

FACTS ABOUT COMMON SALT

Half a Dram a Day is Sufficient, says Prof. Richet, for the Needs of the Human Body

THE facts here presented are chiefly derived from an admirable paper by Dr. Ch. Achard, physician to the Hospital Tenon, Paris, entitled, "Sodium Chlorid in Pathology."

Salt is universally found in the fluids and tissues of animals and vegetables. The amount of salt found per 1000 parts of animal tissues is for different animals as follows:

Insects	6 parts
Birds	7 parts
Land mammals	7 parts
Sea mammals.....	8 parts
Salt water fish.....	20 parts
Fresh water fish.....	8 parts

Human blood contains 3 parts of sodium chlorid to 1,000 parts.

The salt leaves the body chiefly through the kidneys and skin.

The average person takes about two-thirds of an ounce of salt daily. Of this about one-eighth is lost through the skin,

most of the remainder through the kidneys. In fasting, salt almost entirely disappears from the urine. Observations on the Italian faster, Succi, showed that after fifteen days of fasting, the urine contained only three grains of salt in twenty-four hours, or about one one-hundredth part of the amount frequently found in the urine.

The use of chlorid of sodium raises the blood-pressure. When salt is removed from the body by profuse sweating or by copious water drinking, the blood-pressure falls.

Richet, an eminent French scientist, has shown that the food required for a day's ration contains naturally half a dram of salt. Numerous experiments have shown that this amount of salt is exactly the amount which the body requires, and that no more is actually needed. In fact, Richet claims that the amount actually required by the body is even less than half a dram. More than this, as this distinguished scientist says, is luxury and not necessity.

Dropsy is produced in the great majority of cases by the excessive accumulation of salt in the tissues; the kidneys being unable to eliminate salt, it is pushed out into the tissues and of course must be held in solution by water. For every half ounce of salt retained, a pound of water will be retained to hold it in solution. This is shown by the rapid increase in weight when the kidneys cease to eliminate salt.

Many observations have shown that the kidneys fail to remove chlorid of sodium at the usual rate in various diseases, particularly in pneumonia, pleurisy, Bright's disease, some forms of heart disease, erysipelas, typhoid fever, jaundice, cirrhosis of the liver, scarlet fever, smallpox, edema, and dropsy.

By careful observation it has been found that the retention of salt occurs before dropsy or edema makes its appearance. Several cases which have come under the writer's observation are of interest in this connection. The urine of a patient suffering from diabetes in a moderate degree

was found to contain no chlorid of sodium whatever, although the amount taken in the food must have amounted to at least one or two drams. Several examinations made within twenty-four hours showed not a trace of chlorid of sodium in the urine. This was the first indication that the patient's condition was serious. In another twenty-four hours the patient was dead, in spite of all that could be done to prevent a fatal termination. The failure of the kidneys to eliminate chlorid of sodium was evidence that these organs had ceased to do efficient work, and the rapid accumulation of poisons in the body resulted in the patient's death, the kidneys evidently being so far damaged that it was impossible to restore them to normal activity.

In another case, a patient suffering from cardiac disease was found to be eliminating through the kidneys only a very small amount of chlorid of sodium, less than one grain, or about one one-hundredth part the amount usually eliminated. This patient likewise died a few hours later. The kidneys were found in an advanced state of degeneration, the case being absolutely hopeless.

Many similar cases might be cited, including a number of cases in which the withdrawal of salt has been followed by the disappearance of the dropsy and other unpleasant symptoms.

This question is one which ought to receive more serious attention than has heretofore been accorded it.

IS A MEAT DIET REQUIRED?

High-Proteid Foods Absolutely Unnecessary to Sustain Vigorous Muscular Labor

A POPULAR error, which obtains very widely among both the laity and the medical profession, is the belief that the free use of proteid, that is, the lean substance

of flesh, for example, is essential for the support of severe muscular work. The sole basis for this belief appears to be the long-established custom. And yet there are to be found any number of examples of great muscular power and endurance manifested by those who do not use flesh food at all, or at most very sparingly. The Hindu runners, the mountain tribes of Mexico, the peasantry of Ireland, the people of Northern China, the peasant class of Japan, are only a few of the scores of other examples which might be cited.

There are so many complicating factors, however, that the mere citing of these examples seems to have little influence. We are hence glad to be able to present the results of laboratory research by such men as Pettenkofer and Voit, as quoted by Dr. Lusk, of New York, professor of phrenology at the University and Bellevue Hospital Medical College, researches which have been confirmed by Krummacher and other eminent authorities.

The investigators have shown by actual experiments upon animals and dogs, as Fick and Wislicenus showed by their climbing feats more than thirty years ago, that increase of muscular work does not materially increase the consumption of proteid. It is the fats and carbohydrates, not the proteid elements, which are consumed in work. What the working man needs is not, then, a diet extra rich in proteids, meats, fish, eggs, but an abundant supply of fats and carbohydrates, especially the latter, which encourage muscular activity even more than fats, according to Dr. Lusk ("The Science of Nutrition," 1906).

There is not the slightest scientific foundation for the notion that a high proteid diet is especially favorable to muscular activity or endurance. Indeed, Chittenden and Mendel have shown that a low-proteid diet is conducive in a high degree to both strength and endurance.—*Modern Medicine.*



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, can not be answered sooner than June, and if received late in the month, may have to wait over two issues.

10,586. Catarrh.—C. W., Mexico City:

"What will cure catarrh of the head? I have had it for many years. My ears formerly ran, but now only when I have a severe cold, which invariably ends in my ears. Am slightly deaf from ears running when young. Is there not some medicine to be used as a spray or applied in the ears or nose which would get rid of the catarrh?"

Ans.—Catarrh is only a local expression of a general disorder, and the only way to accomplish a cure is to raise the general vital resistance. Sometimes there is a close relation between catarrh of the head and intestinal autointoxication resulting from the excessive use of proteid foods, such as meat, eggs, and cheese. For complete discussion of this question and instruction concerning it, see the article on "Toxic and Anti-Toxic Diet," in the August GOOD HEALTH. It is especially important that the condition of the skin should be improved by every possible means. Excellent tonic measures for this purpose are the daily cold bath, air baths, sun baths,—the out-of-door life. Local cleansing of the ears is important when there is a large amount of secretion. The difficulty has evidently extended into the ears. The discharge from the ears will generally be relieved by the application of boracic acid in the form of dry powder. The secretion should first be removed by careful cleansing of the ears with soap and water, then the external canal of the ear should be carefully dried and filled with dry powder which is held in place by a bit of cotton. This application should be made by a physician.

10,587. Hypopesia.—A correspondent in California:

"Is it beneficial for a hypopeptic to lie on his back exposed to the direct rays of the sun? It is my custom to do so for an hour before and an hour after luncheon."

Ans.—Sun bathing is an excellent hygienic measure when proper precautions are taken. It is necessary to exercise care when exposing the body to the direct rays of the sun. The head must always be protected from the solar rays, and the applications must never be so prolonged as to produce a feeling of exhaustion. The actinic rays of the sun in summer time are very powerful, and may do harm as well as good.

10,588. Whole-Wheat Diet.—F. W. S., Minnesota:

"Does whole wheat, the whole grain, soaked and boiled until perfectly tender, contain everything the human system requires? I know of an athlete who keeps in perfect condition by eating 1½ pounds per day. Is this a perfect diet for all conditions and temperaments?"

Ans.—No. The whole grain does not supply the needed elements in proper proportion, as it contains a smaller proportion of fat than is required by an ideal ration.

10,589. Neurasthenia—Nervous Prostration—Brain Fatigue.—G. K. W., Minnesota:

1. "In a case of neurasthenia, what is the significance of cold sensations in the brain upon any attempt to study or to converse, and the same or a smarting sensation during certain hours of the day, even while riding, and what is the cure?"

Ans.—The nervous symptoms you describe suggest intestinal autointoxication.

2. "Does nervous prostration have a tendency to contract the muscles in the back of the neck, and if so, will the contraction sometimes displace any of the vertebrae, especially the atlas, and so interfere with the nerves controlling the circulation to the brain? If so, what is the cure?"

Ans.—This is rather theoretical.

3. "How may one know when brain fatigue is due to autointoxication, and what remedy should be employed?"

Ans.—If the bowel excretions are putrid, be sure that autointoxication is present. The symptoms are quite sufficient to indicate it without other evidence.

10,590. Intestinal Indigestion.—B. A., New York:

1. "I have intestinal indigestion; have a good appetite, but my food does me little good, as I seem to grow thinner all the time. I have a torpid liver, having to take something all the time for it. My complexion is very yellow, and for years have had large brown spots on forehead and face. Never allow bowels to go more than one day without moving. I have taken calomel tablets, phosphate of sodium, hot salt-water, or lemon and water in the morning, salts, in fact everything that I hear is helpful. I am tired all the time and nervous. What plan of treatment do you suggest?"

Ans.—Look up the article in the August GOOD HEALTH on Toxic and Anti-Toxic Dietary, and follow the suggestions there made.

2. "Am fond of milk and cream. Are they bad for me?"

Ans.—You should avoid milk. Foods containing fats should be used very sparingly. The proteid of the daily ration should be reduced to the minimum. An anti-toxic dietary, containing no meat, eggs, nor milk, should be adopted. Such a dietary is the following: Cereal gruels; dextrinized foods, such as granose, toasted wheat flakes, toasted corn flakes, toasted rice flakes, rice biscuit, browned rice, granola, rusk, breakfast toast, dry toast, gluten gruel; gofio, also popped corn; malted foods, such as granuto, mel-tose, malted nuts; purées, broths, and soups made from peas, beans, lentils, vegetables, protose, tomatoes, potato, fruit; potato and fruit salads; fresh fruits, especially mellow apples, very ripe bananas, peaches, pears, melons, and fruit juices, such as grape, black-berry, and raspberry. Sterilized butter in small amount may be added to the dietary. The food should be very carefully chewed,

and pains should be taken to secure a movement of the bowels daily, or twice a day. If this is not accomplished spontaneously, a plain water or soap enema should be taken,—two or three pints of water at a temperature of 102° to 106°, followed by one pint at 80°. Sometimes an oil enema is necessary. See current numbers of GOOD HEALTH for description of these various treatments.

10,591. Catarrh.—W. R. P., Washington: "Have catarrh, hearing defective in left ear; spit up mucus mixed with blood on rising in the morning. Would you recommend Magic Pocket Vaporizer with bulb for ear treatment?"

Ans.—You should consult a specialist in diseases of the nose, throat, and ears. The catarrh is evidently extending to the ear.

10,592. The Food Value of Cream.—H. O. D., California:

"Kindly tell me why there is so much difference in food value of cream between diet list sent out by the Food Company and 'Science in the Kitchen': Diet lists, proteids, 2.9; fats, 49.3; starch, 5.3. 'Science in the Kitchen,' proteids, 2.7; fats, 26.7; starch, 2.8."

Ans.—In "Science in the Kitchen" the composition of cream is expressed in percentages. In the "Sanitarium Diet List" the composition of the food is expressed in calories per ounce. So the discrepancy is only apparent. To convert per cent composition into calories per ounce, multiply the percentage of fats by 2.66, and the percentage of proteid and carbohydrate by 1.16.

10,593. Sore Throat.—Ontario:

"Am troubled with sore throat; tonsils swell up so sometimes I can only whisper. Especially troubled on right side. What treatment would you advise?"

Ans.—The tonsils are evidently becoming infected. We would recommend their removal. You should consult a specialist at once. Serious impairment of the general health may result from neglect to attend to this matter. Diseased tonsils are a constant menace to the body, proving an open door for the entrance of harmful organisms. Tubercle germs and other disease-producing bacteria often find their way into the body through the open portal provided by diseased tonsils. The tonsils harbor disease germs, such as pneumonia and diphtheria, also the germ of influenza or *la grippe*. These germs are lying there ready to develop whenever the vital resistance is lowered by cold, exhaustion, indigestion, or any other exciting cause.

10,594. Pains in Back.—M. J. T., Texas:

1. "Have suffered with pains in my back for three years. Get tired of lying down and rise between 5 and 5:30 A. M. Pain is between waist and shoulders, with soreness in pit of the stomach. The pain has extended to the back of my head. What remedy would you suggest?"

Ans.—There is evidently hyperpepsia of the mucous lining of the stomach, possibly a condition of erosion. You require a bland dietary, such as soups, purées of peas, beans, and lentils, baked potatoes, sterilized butter, sterilized cream, potato purée, cereal and milk puddings, rice, cream toast, yogurt, malted nuts, almond nut cream or butter. Take the greatest pains to thoroughly masticate your food, so that nothing is swallowed until it has been rendered a smooth paste in the mouth. Fomentations applied over the stomach will probably relieve the pain. You should wear a moist abdominal bandage at night. This is applied as follows: A linen bandage or towel, six or eight inches wide, long enough to go once and a half around the body, is wrung as dry as possible out of very cold water and applied snugly about the abdomen. Over this is wrapped a flannel or

woolen bandage two or three inches wider, pinning it snugly, especially at the edges, so as to make the bandage air-tight. This should be worn during the night. On its removal in the morning, the abdomen should be rubbed with a towel or the hands dipped in cold water, followed by thorough drying. A month at the Battle Creek Sanitarium will yield satisfactory results.

2. "What should be my diet? Are fruit, vegetables, tea, coffee, and milk harmful?"

Ans.—Tea and coffee, and milk in most forms, should be avoided, as also sour fruits.

10,595. Pain in the Head.—A. C. R., Texas:

"What is a severe pain in the head due to, and what would you advise?"

Ans.—Pain in the head may be due to neuralgia or a number of other causes. The most common cause of headache is intestinal autointoxication, due to the development of poisons in the colon and their absorption into the blood. These toxic substances are carried through the blood to the tissues, and coming in contact with the nerves, irritate them, thus giving rise to painful headache and many other unpleasant symptoms. For in-

LISTERINE

The original antiseptic compound

¶ Listerine is peculiarly free from irritating properties, even when applied to the most delicate of the tissues, whilst its volatile constituents give it more healing and penetrating power than is possessed by a purely mineral antiseptic solution; hence it is quite generally accepted as the standard antiseptic preparation for general use in domestic medicine, and for those purposes where a poisonous or corrosive disinfectant can not be used with safety. ¶ It is the best antiseptic for daily employment in the care and preservation of the teeth.

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

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

struction concerning intestinal autointoxication, see August GOOD HEALTH.

10,596. Sauerkraut—Fruit Juices.—J. H., Illinois:

1. "Is sauerkraut injurious to one afflicted with rheumatism?"

Ans.—Sauerkraut is certainly not a very wholesome food for any one. It might not be especially injurious to a person suffering from rheumatism, but it is a food containing so little nutriment it is scarcely worth while to eat it. If eaten at all, it should be thoroughly cooked, and must be very thoroughly masticated. But even then it consists chiefly of innutritious material, and on the whole it is a very questionable article of diet.

2. "How can grape and other fruit juices be made to keep sweet over winter?"

Ans.—The fruit juice and bottles should be heated to a temperature of 180° F. Then put the fruit juice into bottles and cork, and cook the bottles thus corked for thirty minutes at a temperature of 180°. It is important to use a thermometer in this operation, so that the exact temperature named will be maintained.

10,597. Pain in Lower Bowel—Pain in Shoulder Blade.—L. F., Iowa:

1. "What is the cause of a dull ache and sometimes a pricking pain in lower bowel, and what should be done for same?"

Ans.—The symptoms you mention indicate an irritated condition of the mucous lining of the colon. There may be ulceration. The pain is more likely due to colitis, or it may be caused by prolapsed bowels or stomach.

2. "Am using tablespoonful of olive oil after each meal. Is it beneficial, or too much?"

Ans.—The use of olive oil in the quantity named is likely to be beneficial.

3. "What is the cause of sharp pain and soreness of left shoulder blade?"

Ans.—Pain under the shoulder blade is very likely due to the same cause as is mentioned in the answer to No. 1. Wearing an abdominal supporter, such as the Natural Abdominal Supporter sold by the Good Health Publishing Co., of Battle Creek, may afford relief. Fomentations over the seat of the pain at night, followed by the application of the moist abdominal bandage, as described in the answer to 10,588, will also be helpful. Take care to maintain a correct position in sitting and standing.

10,598. Value of Boiled and Distilled Water.—R. N., New Jersey:

"Please give relative value of boiled and distilled drinking water."

Ans.—There is no difference in the value of boiled and distilled drinking water unless the boiled water is very hard or contains harmful mineral substances. Ordinary drinking water, when well boiled, is practically as safe as distilled water.

10,599. Pain in Stomach.—J. J. F., Texas:

"Mother for three years has been constant sufferer from what our doctor says is stones. Medicine which has cured others does her no good. Sickness begins with severe pain in stomach, and was at first accompanied by backache. The severe pains last 1½ hours, during which time her stomach is very sore. During the past nine months there has been no backache, and the pain is not quite so severe. Spells between attacks vary from eight to ten days. There is no vomiting or constipation in the case. She is 70 years old."

Ans.—This patient may be somewhat relieved. We would suggest fomentations over the seat of the pain, followed by the employment of the moist abdominal bandage as described in answer to 10,594. The dietary requires careful supervision. The foods mentioned in the answer to question No. 10,590 are suitable for this case. The drinking of very hot water will in some cases relieve the pain in the stomach. Unless the bowels move freely at least once a day, the enema should be employed. Intestinal motility may be very slow, even though no constipation is apparent, the food requiring sometimes two, three, or four days to traverse the intestinal canal instead of twenty-four hours normally required. During this long sojourn in the alimentary tract the food undergoes putrefaction, and the poisons developed are absorbed into the blood, and still further aggravate the condition of the liver. This is doubtless a frequent cause of gall-stones. The use of yogurt capsules might be helpful. These are obtainable from the Yogurt Company, Battle Creek, Michigan. This patient ought to have a thorough examination. A few weeks at the Battle Creek Sanitarium would be of great service to her.

10,600. Boiled and Aerated Water.—A. H. B., Texas:

1. "Is not aerated and boiled water as good as distilled water?"

Ans.—Water boiled and aerated is as good as distilled water unless the boiled water is hard or contains harmful mineral substances.

2. "Where can one get a good still such

as you mentioned in a recent number of **GOOD HEALTH?**"

Ans.—There are several good stills, one or more of which have been advertised in **GOOD HEALTH**.

10,601. Asthma.—H. C. W., Ohio:

1. "What is good remedy to relieve asthma? Have suffered for fourteen years."

Ans.—Asthma is frequently due to auto-intoxication, or it may be due to a diseased condition of the lungs. When it is due to a disordered state of the lungs, the asthma may be aggravated by auto-intoxication. Measures which give relief are the chest pack applied at night on retiring and kept in place during the night, followed upon rising in the morning by cold friction to the chest and the body by the hands or a towel frequently dipped in very cold water. The friction should be followed by thorough drying and rubbing of the skin with the dry hands until warm.

2. "What is the proper diet in my case?"

Ans.—An antitoxic diet, such as described in the **AUGUST GOOD HEALTH**, should be adopted. For the list of foods see answer to question No. 10,590. If constipation is present, the following dietary will be helpful: Fresh

fruits and fruit juices, lemonade, fruit jellies, fruit soup, stewed raisins, stewed prunes, yogurt, colaxin (furnished by the Colax Company, Battle Creek, Mich.), toasted wheat flakes, toasted corn flakes, granose, granose biscuit, sterilized butter, meltose, olive oil, ripe olives, bromose, malted nuts, nuts of all kinds carefully chewed, especially pecans, almonds, filberts, and pine-nuts, baked Irish potatoes, sweet potatoes, tomatoes, spinach, cauliflower.

10,602. Pharyngeal Catarrh.—D. W. L., Iowa:

"What treatment would you suggest in a case of long-standing laryngeal catarrh in a boy of sixteen. Until past year he has grown rapidly, and been strong and well. Is now of a man's height and weight. Takes cold easily, and last winter contracted severe cold which resulted in cough and expectoration of mucus, which continued for six months, he losing sixteen pounds in weight. A specialist says case can not be cured, and advises local treatment for a period each year."

Ans.—There is no reason why the boy should not be cured unless he has tuberculosis in an advanced stage, which is possible. The case should be examined by a lung specialist to ascertain the exact condition.

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10,603. Lactic Acid.—M. Q. W., Indiana:
"Is the lactic acid ferment used for souring milk, prepared by Parke, Davis & Co., healthful?"

Ans.—We have made no examination of this product, but we have reason to believe that it is a reliable preparation.

10,604. Chronic Constipation.—A. K. F., Louisiana:

"What would you advise for sufferer from chronic constipation? Have been taking treatment prescribed by one who has studied your methods; run and walk five miles daily, abdominal massage to strengthen muscles of that region, enema daily with warm water for three minutes, followed by cold one for half to one minute."

Ans.—See answer to question No. 10,590.

10,605. Acid in the Bowels.—W. S. R., Iowa:

"In a sanitarium examination my stomach was said to be good, but intestinal digestion poor. What foods would you advise me to use to gain strength? Acids give me sick headache and cause diarrhea."

Ans.—The cereal diet with the addition of fats is advisable. The following foods are especially useful: Breakfast toast, granose biscuit, zwieback, granose flakes, granola, corn flakes, wheat flakes, rice flakes, rice, granola mush, granuto, granola gruel, mel-tose, purées of peas, beans, and lentils, asparagus, cauliflower, spinach, potato gruel, baked Irish potato, baked sweet potato, tomatoes, macaroni, yogurt (Yogurt Company, Battle Creek, Mich.), and cottage cheese. Healthful fats to be added to the dietary are sterilized butter, olive oil, and sterilized cream.

10,606. Weak Pulse—Breakfast Foods—Cocoa—Milk.—A. R., Canada:

1. "What does weak pulse indicate?"

Ans.—A weak pulse indicates feebleness.

2. "What breakfast would best agree with weak stomach?"

Ans.—A breakfast consisting of cereals, particularly rice, potato purées, toasted corn flakes, toasted wheat flakes, granose or granola.

3. "Are dates easily digested?"

Ans.—Yes.

4. "Is cocoa with plenty of cream and sugar in it digestible?"

Ans.—Leave out cream and sugar entirely.

5. "What would you recommend to build up digestion and the system?"

Ans.—General health culture—the outdoor life, exercise daily in the open air to the point of moderate fatigue, daily cold bathing, sun bathing, free water drinking, and

the adoption of a natural dietary, avoiding meat, eggs, and most milk preparations. The food should be thoroughly chewed. Take pains to see that every morsel is reduced to a liquid in the mouth before swallowing.

6. "Is hot milk easily digested?"

Ans.—Hot milk agrees well with certain persons, but many suffer from casein dyspepsia, and hence should avoid milk in all forms.

10,607. Nervousness and Neuralgia of the Head—Dizziness—Heat—Hard Water.—O. C. N., Illinois:

1. "Am subject to extreme nervous spells and neuralgia of the head, left by weakened state after typhoid malaria. Thinking it due to autointoxication, I commenced to take frequent enemas, bowels being slow. They helped me at first, but bowels began to get sore, with mucous discharge and colic. A physician said I had catarrh of the bowels, induced by using impure water, and stated that the use of plain water irritates bowels, and advised a salt solution. However, it still continues to hurt the bowels. I was obliged to use a laxative for constipation. Enema also produced irritation of rectum. What would you advise for catarrhal state of the bowels?"

Ans.—The use of the enema frequently leaves the mucous lining of the bowel in an irritated condition. This is relieved by the employment of some antiseptic ointment or suppository. An ichthyol ointment or ichthyol suppository is perhaps the best. Enemas sometimes fail to secure the desired relief. It would be well to try colax, furnished by the Colax Company, Battle Creek, Mich. This is a new preparation for the relief of certain cases of constipation, and the results secured are very satisfactory. When the water enema is irritating, it is sometimes better to employ an oil enema, using a good vegetable oil. A vegetable oil furnished by the Sanitas Food Company, Battle Creek, Mich., is excellent for this purpose. The use of yogurt capsules is especially helpful in cases of catarrh of the bowels, by introducing into the intestine the Bulgarian bacillus,—a friendly aerobe. A farinaceous dietary in connection with these capsules favors the development of aerobes, which drive out the anaerobes, and thus relieve the catarrh.

2. "Is it curable?"

Ans.—Yes.

3. "Do colds which I take apparently without cause aggravate the trouble?"

Ans.—Yes. The tendency to take cold will disappear as the intestinal autointoxication is relieved.

4. "Advise treatment for neuralgia and nervousness."

Ans.—An English authority on nervous diseases has said that "neuralgia is the cry of a hungry nerve for better blood." The most common cause of neuralgia and nervousness is doubtless intestinal auto-intoxication. Foods, especially those rich in proteid, when retained in the intestine, undergo putrefaction, resulting in the formation of toxins. These toxins are absorbed and carried by the blood throughout the body, and act as irritating poisons. The treatment consists in adopting a dietary containing a very small proportion of proteid and only a moderate amount of fats. The fats should be taken in the form of sterilized butter or cream. Friendly germs may be introduced into the alimentary canal by yogurt capsules, and their growth may be favored by a diet rich in farinaceous substances.

5. "Do slight colds cause dizziness?"

Ans.—Sometimes. Dizziness is one of the prominent symptoms of intestinal auto-intoxication.

6. "Does extreme heat have a weakening effect on one poor in health?"

Ans.—Yes.

7. "Does hard water containing too much lime have a bad effect on the system?"

Ans.—Yes. It is irritating to the mucous lining of the gastro-intestinal tract.

10,608. Olive Oil, Yogurt, Tunis Dates.
J. S., Rhode Island:

1. When is the best time to take olive oil?"

Ans.—At the close of the meal.

2. "How many yolks of hard-boiled eggs a day may a lady over seventy-five eat, and would the oil be good for the same person?"

Ans.—An aged person would do well to make very small use of eggs. The less the better, provided the appetite is satisfied. If there is a strong craving for eggs, two or three hard-boiled yolks may be used.

3. "What is yogurt of Bulgaria, and how is it made?"

Ans.—Yogurt is a preparation of milk made with a special ferment in Bulgaria. We prepare it here, but it can not be shipped well; but we prepare capsules containing the ferment which, if taken after each meal, produce the same effect as the milk preparation, and even better effects, as there are many persons with whom milk does not agree. This preparation is put up, four dozen in a box, at \$1 a box, by the Yogurt Company, Battle Creek, Mich.

4. "Do you have the Tunis dates for sale at any of your branches? If not, where can I get them? Give name and address."

Ans.—We do not sell Tunis dates. We do not consider this date a very good food, as it contains so much cane-sugar, and is rather hard to digest under ordinary circumstances.

5. "What is the cause of feces matter discharges, and the remedy? It occurs after taking enemas at 80°. Would you advise to continue flushing the colon?"

Ans.—I fear you have enteritis or colitis. Possibly the enemas are irritating to the colon. I would suggest that you use oil enemas instead. Vegetable oil is best. A specially prepared oil is supplied by the Sanitas Company at \$2 a gallon.

LITERARY NOTES

EARL PERCY'S DINNER TABLE

HAROLD MURDOCK, in the September *Atlantic Monthly*, draws a delightful picture of provincial official life as it presented itself in the Boston of 1775. Earl Percy was heir to the dukedom of Northumberland, and commander of His Majesty the King's forces stationed in Boston.

"The house occupied by Percy stood within its garden at the head of Winter Street. It had been built early in the century, and its windows looked out upon the open pasturage of the Common. . . . The location was most convenient for the earl, who was always within a stone's throw of the camps.

"It was pleasant to see him crossing the Common each afternoon to do the honors of his mansion; and day by day and week by week it is interesting to watch his guests passing in and out the great door."

"This evening," records an imaginary Boswell II, "I dined with Earl Percy at his house at the head of Winter Street. George and I were glad of this opportunity to sit at his Lordship's table, and we met there, beside young Roger Sheaffe, a Boston lad who is much in Percy's favor, Colonel Gunning, Major Pitcairn of the Marines, young Collingwood of the Navy, Lord Rawdon and Captain Harris of the 5th, Fox of the 38th, the Reverend Doctor Byles who preaches at the meeting-house on Hollis Street, and little Gould of *Ours*. Earl Percy presided at

his table with the elegance of a man of fashion, and was most civil to me. He displayed at once the good breeding of a gentleman of birth with the frank comradeship of the soldier."

We are in due time introduced to the initial incidents of the Revolution. Lexington and Concord and Bunker Hill,—each struggle is told in a vivid manner, and with full justice done to the soldierly qualities of the Earl,—we can hardly call him great, for once more in the old country and now a duke, he "grew old in a fine aristocratic way, and became gouty and choleric of temper, as befitted an English peer. He was courted by the Whig leaders at Westminster and was somewhat spoiled by these attentions. He gave his counsel with a grand air and was quick to take offense. He quarreled at last with Charles James Fox, and he is credited with administering a rebuff to no less a person than the Prince of Wales."

THE BIG BROTHERS CLUB MOVEMENT

ONE of the most intensely interesting features of the September magazines is Ernest K. Coulter's story in the *Circle* of the origin of the Big Brothers movement in New York City. Forty men, touched by the pitiful recital of how criminal children go through the juvenile courts only to be confronted by the greatest temptations and to pass through the really testing crisis, banded together to save these boys and girls, and called themselves "The Big Brothers." The children are taken for motor rides, are provided with a gymnasium, and a protective and positive influence for good thrown around them that in the great majority of cases saves the youthful member of the criminal class. The Club's mission is summed up in this one sentence: "There is no more practical form of helpfulness than that which sets the feet of child victims of environment and neglect on the road that leads to good citizenship."

HOW TO WRITE LETTERS

IN the September *Woman's Home Companion*, Edward Everett Hale writes a most interesting and helpful article on "A Talk about Letter Writing." The advice which the Doctor gives is homely and sound, as one would expect from so cultivated a letter writer.

Other articles that will be of interest to GOOD HEALTH readers are "The Influence of Business Life on Women," by Anna Steese Richardson, and an editorial on "The Boot-black, a City Problem."

SHALL NIAGARA BE LEFT?

"How Much of Niagara Shall Be Left?" "What Power Companies Have and What They Want," "To Whom Do the Falls Belong?" "Commercialism vs. the Voice of the People," "A Remarkable Campaign,"—these are a few of the articles that go to make up the June-August *Chautauquan*, a Niagara number.

THE IDEAL HOME

IN a valuable article in the September *Success* entitled "A Plan for Fall Housekeeping," Claudia Quigley Murphy says of the ideal closet: "The model closet is the one that is most easily cleaned, in which clothing can be procured most readily, which furnishes the poorest lodging for bugs, moths, or dust, and which is dry, airy, and clean.

"When choosing the fittings of your new home or arranging for the remodeling of your old one, be wise in your plans for closets, do not be allured into seemingly cute little pigeonholes of cupboards, all neatly boxed up for the towels, sheets, and pillowslips. They are delusions to good housekeeping, for the little pigeonholes persist in filling up with dust and bugs. Big ample shelves are best, because they can be watched continually."

"THE Food and Drugs Act," 176 pages, by Arthur P. Greeley, has to do with the pure food and drugs act of 1906, and which went into operation January 1 of this year. The book gives the text of the law, annotations, provisions made for its enforcement, rulings of the Attorney-General, and many other valuable facts which can not be got from the mere reading of the text. An interesting feature are the queries sent to the Secretary of Agriculture with reference to the scope and application of the act, with the Secretary's answers. Price, \$1.50. The book may be obtained from the Good Health Pub. Co., Battle Creek, Mich., or from the publishers direct, John Byrne & Co., Washington, D. C.

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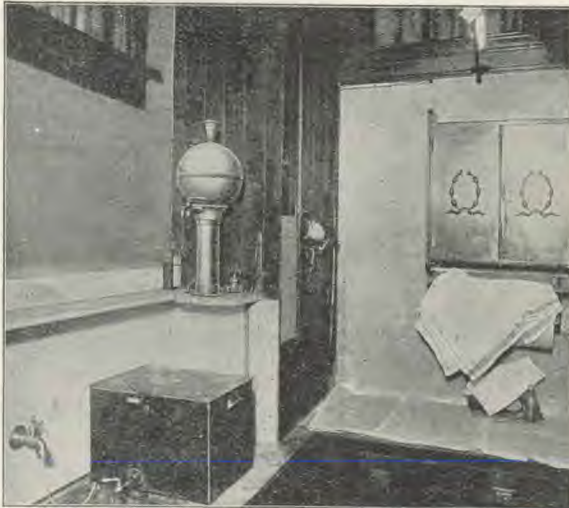
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It is the phonograph that gives you all the sound vibrations. It has not only two horns, but two vibrating diaphragms in sound box. Other phonographs have **one** diaphragm and **one** horn. The Duplex gets all the volume of music; other phonographs get the half. The Duplex gives you a better tone—clearer, sweeter, more like the original. Our

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Each horn is 30 in. long with 17 in. bell. Cabinet 18 in. x 14 in. x 10 in.

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1. The gross earnings of the institution for the year 1906 were \$647,000.
2. The net earnings for the year 1906 were \$70,956.17.
3. The gross earnings for the first seven months of this year, 1907, were \$315,000.
4. The gross earnings for the month of July, 1907, were \$83,600.
5. The daily average number of guests at the Sanitarium during the months of July and August was 900.

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