



GOOD HEALTH

January, 1905.

The Fasting Cure.
 Egyptian Notes — *Illustrated*.
 A Faithful Sentinel.
 Appendicitis: Some of the Recognized Causes of the Disease, and Simple Methods of Prevention and Cure.
 Harmless Hypnotics.
 Battle Creek Sanitarium Day at the World's Fair — *Illustrated*.
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 New Year's Course Dinner.
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 Editorial.

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Where Should an Invalid

Spend the Winter?



The answer is easily found.

The invalid should spend the winter where he may find greatest profit for his health.

Shall it be a warm or a cold climate?

There are considerations to be thought of.

Warm weather in winter time is an attractive novelty.

Flowers, palms, bananas, and other tropical growths in January are delightfully luxurious and seductive.

But the system needs the stimulus of cold, dry air. There is no other tonic half so valuable.

Heat depresses, enervates, weakens, lowers vital resistance, breeds germs, and invites disease.

The delights of a tropical winter annually allure away from the frost and snow of the north thousands who are quite unconscious that Jack Frost, though a very austere and blustering sort of fellow, is, after all, a good friend, and especially to chronic invalids.

The keen, cool, crisp, oxygen-laden air of December to January is the purest, sweetest, most healthful of the year. There are no germs in it, no dust in it, no poisonous gases of decay from bogs or barnyards in it; only pure, life-imparting oxygen, condensed, vitalizing, stimulating, appetizing. Appetite, as Pawlow, the St. Petersburg savant, has shown, means gastric juice—digestive power.

So cold air purifies the blood, energizes the heart, puts new vim into the muscles, helps the stomach, wakes up the liver, lifts the whole being to a higher plane of life.

The "winter constitution," which all animals put on when cold weather comes, is hardier, tougher, more enduring, more resisting to disease than the feebler "summer constitution" which springtime brings to northern dwellers, and which tropical animals and men have all the year round.

This "winter constitution" is just what the chronic invalid needs.

The consumptive gets it by living out of doors in a tent, sleeping with windows open, and getting close to nature. The "winter constitution" which he cultivates, eats up the germs which are consuming his lungs, and thus cures him. It is the cold air that does the work.

The most successful consumption resort in the world is Davos, a winter resort in the Swiss Alps, near the Engadine, where the

snow is six feet deep and the temperature close to zero all winter. Every winter, hundreds of tubercular patients from all parts of the world resort to Davos to take the "cold-air cure."

Cold air cures. There is no doubt about it when it is accompanied by wise and skilful management and careful regulation of diet. Highly nourishing, easily digestible food, massage, electricity, baths and other sanitarium methods are essential for the fullest success.

That which will cure that dreaded disease, consumption, will cure almost every other chronic malady.

The body heals itself. What the sick man needs is a more vigorous body and cleaner blood, for "it is the blood that heals."

There is, perhaps, no place in the United States where an invalid can be so comfortable in the wintry weather of the year—late autumn, winter, and early spring—as at the Battle Creek Sanitarium.

There is no winter inside of the great absolutely fireproof main building of the Battle Creek Sanitarium: an artificial climate (70° F. during the day, and 60° F. at night); perfect ventilation for each room; pure warm air in rich abundance—9,000 cubic feet per hour for every guest. This is the way that out-of-door purity is maintained. Warm floors; kitchen and dining-room at top; no smells; solid walls, partitions, and floors,—no place for bugs; no harmful drafts, no dust.

There is probably no place in the region of frost and snow where an invalid can find so favorable conditions for wintering as at the Battle Creek Sanitarium. Nowhere else has so successful an effort been made to create an artificial climate, on a scale large enough to meet the needs of several hundred invalids. In the great solid structure summer reigns from October to April more uninterruptedly than from May to September. There are no chilly mornings or evenings; no raw, damp nights; no cold, drizzly days; and on the other hand, no oppressive tropical heats. Seven acres of floor space inclosed by heavy impervious walls through which the cold can not penetrate; thick stone floors which, once warmed by the radiation from heated steam pipes, remain warm the whole winter through, making cold feet from cold floors impossible,—a difference of not more than ten degrees between day and night; air always dry, pure, full of ozone, unmatched b

any natural climate on earth; with palms, flowers, foliage everywhere, to remind one of summer.

Thus perfect protection is offered those who need it, while those who need to be hardened by contact with cold air, are able to secure the benefits of this great invigorating force whenever desired, day or night, and to any desired degree or extent. In the summer season this great healing force is available only in small measure by means of cold baths, ice rubs, and fans; but in the winter season, the keen frosty air is everywhere ready to be put to work as the great uplifting power it is when rightly applied.

Warm air comforts and allures,
But cold air hardens and cures.

A mammoth gymnasium for exercise; two great swimming pools; a grand solarium; ingenious mechanical exercise machines; and a great palm garden in which the patient may easily imagine himself in a tropical clime as he sits cosy and warm under a great palm or a banana tree rising twenty feet above his head,—these are features well calculated to produce an atmosphere of summer in the coldest weather.

One does not realize it is winter until he looks out of doors, except for the buoyancy of his spirits, the elasticity of his step, the keenness of his appetite, and the joy of living, which returning vigor brings.

Under the doctor's prescription, excursions are made into the outer region at the proper hours and with suitable precautions,—sleigh-rides, tobogganing, walks, skating, and skiing for strong folks; "air packs," that is, lying out of doors enveloped in cold-proof wrappings, for feeble folks,—from which everybody comes back with a keen appetite for the nourishing, easily digestible food which the Sanitarium menu supplies in rich abundance. Nowhere in the world can an invalid find such a rich and endless variety of wholesome, toothsome, tempting delicacies, easily digestible, even predigested, and so daintily served, as at the table of the Battle Creek Sanitarium.

The winter season, under right conditions, affords the chronic invalid the best possible chance for recovery. All persons suffering from a chronic malady are in need of one and the same thing; namely, more health,—a higher degree of vitality, of resistance, higher nerve tone, higher digestive tone. Hence every chronic sufferer requires tonic treatment—tonic conditions. The winter season alone provides continuous tonic conditions. The dense air, containing from one-eighth to

one-fourth more oxygen than midsummer air, stimulates all the vital processes to a higher degree of activity. Air is a curative force, in operation day and night, and steadily lifts the patient up to a higher level until the ebbing tide of life turns backward, and the renovating forces of the body resume their activities with all the old-time vigor.

An outdoor sun bath finds a complete substitute in the electric bath. Powerful arc lights concentrated upon the body by means of highly polished metal reflectors produce effects the most powerful of which light is capable. In three or four minutes the skin may be as red as if exposed to the sun for half an hour, and in seven or eight minutes a veritable sun burn may be produced when this is desirable. An eminent French doctor in prescribing for some puny infants presented to him by a titled lady, horrified her by the command, "Roast them, Madam. Roast them,—in the sun." An electric-light "roast" may be four times as powerful as a sun bath, thus securing the effects of the actinic rays in a very much shorter time. The actinic ray of the arc light is much more powerful in proportion to the amount of light than that of the sunlight.

During the winter season the phototherapy department of the Battle Creek Sanitarium is thronged from morning till night, and is fairly ablaze with the glorious health-imparting rays sent forth from a number of powerful arc lights especially constructed for the purpose.

Life is never dull at the Battle Creek Sanitarium. The patients are kept busy all day getting well. There is no routine treatment. Each patient has a program providing something to be done every hour, which will give him an uplift. With rare exceptions, improvement is experienced with the very first application made, and the healing impulse gathers energy from day to day. The patient soon sees through the philosophy of the Battle Creek Sanitarium System, and learns how to co-operate with the physicians in their work, not of healing,—for doctors can not heal,—but in pointing out the way, removing obstacles, and co-operating with the mighty healing forces of nature, which, divinely implanted, are divinely guided. The same power which created, heals. Healing is re-creating.

A school of health is in progress during the entire winter. Afternoon classes and evening lectures give every patient an opportunity to obey the injunction of the great philosopher, "Know thyself," and by acquiring this knowledge he can learn, not only how to get well, but how to keep well.

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right.

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astray—

On with what strength I have, back to
the way.

—Charlotte Perkins Stetson.

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No. 1

THE FASTING CURE

BY J. H. KELLOGG, M. D.



THE question of fasting is at the present time attracting a good deal of interest. It is not by any means a new notion, but is the revival of an old idea. Priessnitz, the originator of the water-cure system, or hydropathy, employed fasting systematically, just as it is employed to-day by those who advocate this negative method of healing the sick.

There is no doubt that many people are cured of chronic ailments by the fasting method. People who have suffered severely from chronic troubles such as indigestion, headache, biliousness, have enjoyed comparative immunity after taking a trip across the ocean. The stomach is thoroughly emptied by vomiting; they are unable to eat anything, and nature has time to burn up the waste matters of the body.

If there should be a fuel famine, the first thing you would do would be to rake over the ash heap and take out all the cinders that had been carelessly thrown there. The next thing would be to look around for waste papers, old boxes, and other useless things. All the odds and ends you could find would be put in the furnace to keep the fire going. If the famine should continue, you might be forced to burn up some of the furniture. One of our Arctic explorers burned up part of the ship's staterooms in order to keep warm in a very long winter.

This sort of thing is just what happens when a person fasts. When he does not have his regular meals, he soon begins to feed upon himself. After a day or two he no longer feels hungry. The body says, metaphorically, "It is no use to call for food, for none is supplied; I will seize on something close at hand."

The body draws upon its stored resources; every little particle of fat will be utilized, then, all the cinders—the half-burned fuel that has accumulated in the body. Food that has been taken into the body, partially digested, imperfectly burned, and left as cinders, is seized upon and utilized.

Uric acid, a product of proteid metabolism, is the body cinders. A man can consume profitably only an ounce and a half of proteids per day, but ordinarily from three to five ounces per day are taken. All the books say that three or four ounces are necessary to keep a man healthy. The army ration supplies four or five ounces, which is a great excess. The majority of people are eating two or three times as much as they need, and the consequence is they can not utilize it all, and it accumulates in the body as half-burned material, just as cinders will collect in a furnace until you can not get air through the grate. You have to remove them before you can get a good bright fire burning.

There are those who have debased the sacred function of taking into the body the divine life which the Almighty has stored up in our food to replenish the living forces of our bodies. They goad their appetites with sauces and tempting varieties of food, having a succession of courses arranged to urge the appetite to new effort far beyond what the needs of the body demand. The palate is made to serve as a means of pleasure, and the poor stomach is used as a receptacle for the cast-off pleasures of the palate, regardless of the fact that all the food taken must be absorbed, and enter into the blood and the bodily structure. The result of all this is that most people are suffering more or less from auto-intoxication, or self-poisoning. There is not a proper balance between the income and the outgo, and the body is poisoned and defiled by the accumulated rubbish. When a person is in this unclean condition, fasting is a good thing for him. Fasting gives the body a chance to clear up all the unnecessary material, which it will do before it will begin to consume the vital tissues. It is exactly the same principle that you follow in your house when you have a coal famine,—before you burn up the bric-à-brac and the furniture, you get rid of all the rubbish and unnecessary things.

This explains why it is a man can fast so long without losing very much in strength. Dr. Tanner told the writer that on one occasion he fasted for forty-two days, but he had no watchers to verify this, so he fasted again for forty days. He said he felt no weaker after the first week than at the start. Dr. Griscom fasted for six weeks. An Italian in London, under supervision, fasted full sixty days. In a village house in Switzerland a number of pigs were buried under an avalanche, and when

the house was dug out, three months afterward, two or three of the pigs were yet alive, although they had fasted all that time. A bear goes into a hollow tree in the fall and lives three months without eating. It is possible for a hibernating animal to live a long while without food, because the body furniture is not being attacked. The nerves, muscles, and bones remain intact, and it is only the fat and the rubbish that is being consumed. If a person has a great amount of uric acid stored up in his body, and a considerable amount of fat, he can fast almost with impunity; there is enough to keep the fires of life burning for a while. But if he has no accumulation of this kind, he will begin to lose strength rapidly. If one finds his strength keeping up when fasting, it is evident that the fast is doing him good.

There is really only one benefit that is gained by fasting, and that is getting rid of the cinders, the uric acid, the proteid waste of the body.

It is a vital point in the consideration of this question that the different food elements produce different substances in the body. Proteids, which are found abundantly in eggs, beefsteak, fish, etc., and also in the legumes and in nuts, build up the muscles, nerves, and blood. Of this food element we need about an ounce and a half per day, and all that we eat above that quantity is carried off through the kidneys as waste matter, or deposited in the body as cinders. The starch, sugar, fat, and fruit acids are the source of heat, fat, and energy. If one takes a little more sugar, starch, or fat than he needs, he does not suffer much in consequence, because it is stored up in the body in the form of fat—residual tissue. Some people can carry about a great surplus of this fat without any serious effects, though of

course it is an unhealthy condition. But if a person takes an excess of proteid, it must be disposed of at once; otherwise, it forms tissue poisons which are deposited in the skin, brain, and all the tissues. The products of proteid metabolism are extremely poisonous, while the products of starch and fat metabolism are not so. When starch, sugar, and fat are utilized in the body, the result is simply carbonic acid gas and water. The carbonic acid gas is easily thrown off through the lungs. But when proteids are used up in the body; or partly used up, the consequence is deadly poisons, of which uric acid is the least harmful. The most poisonous ones are xanthin, hypoxanthin, adenin, granin, and allied products.

It is the accumulation of these poisons in the body that makes a man feel tired and exhausted when he has not worked; that makes him nervous and irritable, and sometimes drives people to lunatic asylums; that produces a general state of chronic biliousness or auto-intoxication, a dingy skin, darkened whites of the eyes, general lowered vital resistance to disease, and disorder of the whole system.

The only thing in foods which we need to be really afraid of is the proteids. When a person feels that he needs to fast, all that is necessary is to abstain from proteids. For a long time the writer has prescribed a fruit diet as a means of agreeable and beneficial starvation. The method is simple. Eat nothing but fruits, excluding the highly nutritious kind, such as bananas, figs, and dates. Use ordinary juicy fruits, such as apples, berries, oranges, peaches, and grapes. Eat whenever you feel hungry, for this sort of food will not do any harm, being mostly water. It satisfies the craving for food, supplies energy for the muscles, pre-

vents lowering of the vital resistance and weakening of the vital forces. A person should continue this fruit diet until he finds himself getting clear-headed, the tongue clean, the skin clear, and resistance rising. It is an excellent plan for persons in ordinary health to take a fruit fast for a day once a week.

There is no advantage in an absolute fast unless one does not know any better way. Entire abstinence from food is better than to be gorging one's self with those foods which are productive of poisons in the body. But a fruit diet is a better way. Experience in the treatment of one hundred thousand invalids in the Battle Creek Sanitarium is worth something in settling this question as to whether or not absolute fasting is essential. In no instance has there been any difficulty in accomplishing in the case of a chronic invalid all that is claimed to be accomplished by fasting, but without the actual fasting.

Fasting is a good thing, but there is something better. It is only necessary to deprive the patient of proteid substances. In the fruits we have sugars and acids, but practically no proteids; so all that is accomplished by the ordinary fasting cure, can be accomplished by a fruit diet.

There is great advantage in this plan, because the vital resistance of the body is not lowered, the energy of the body is not depleted. The sugar of fruits is immediately absorbable, and furnishes energy to the body at once, without the digestive process. The acids of fruits are depurative; they are slightly diuretic, and destroy germs which often accumulate in the stomach in countless millions.

Still further: fruit supplies to the liver the material which it needs in its

work of destroying the poisonous bodies that are found in the blood. The liver stores glycogen from the digested food as a means of enabling it to destroy the body poisons. In fasting, the liver shrinks up until there is no glycogen in it, and becomes half its normal size. A fruit diet enables the liver to keep up its normal work, so the body is not deprived of this most important defense.

If absolute fasting is carried a little too far,—and no one knows just how far that is,—the bodily forces may become so weakened that the body will not have power to rally and rebuild itself. The fasting cure has sometimes been carried so far that the appetite has gone, never to return, and the forces of the body have never been able to resume their activity. More than one case of fasting has ended in a funeral. That risk is not run when fruit fasting is the method employed.

In connection with the fruit cure, the patient should be treated by other

means. Hot and cold baths, both of which accelerate the fires of the body, will help to burn up the cinders. He should also exercise more or less. Massage and electrical applications of various kinds help to destroy the cinders.

There is another advantage in eating fruit, and that is, that after every meal a great quantity of white cells, which are the natural body defenders, are poured into the blood. When a person fasts, these defenders of the body are depleted, and the body is left defenseless against disease. This has been proved by experiments upon fasting pigeons. Those that were deprived of food could be inoculated with a disease to which those that were given their ordinary food were immune. Experience has shown that a starved man will take a disease much more readily than a well-fed man.

By the fruit fast we can get all the good without the danger, without running anything of the risk incurred in total abstinence from food.

MAKE THIS A DAY

MAKE this a day. There is no gain
 In brooding over days to come ;
 The message of to-day is plain,
 The future's lips are ever dumb.
 The work of yesterday is gone —
 For good or ill, let come what may ;
 But now we face another dawn.
 Make this a day.

* * *

The day is this ; the time is now ;
 No better hour was ever here —
 Who waits upon the when and how
 Remains forever in the rear.
 Though yesterday were wasted stuff,
 Your feet may still seek out the way.
 To-morrow is not soon enough —
 Make this a day.

— *Chicago Tribune.*

EGYPTIAN NOTES

BY J. M. KEICHLINE, M. D.,

Cairo, Egypt



NE who wishes to know the true Egyptian, must live among the *fellaheen* (farmers) in their one-story

the Negroes; and they have learned all the bad habits of the French, Italians, Greeks, Armenians, Syrians, and Turks. It is a blessing that Eng-



AN EGYPTIAN LABORER

mud-hut villages. He must go with them to their fenceless fields where they pasture their oxen, cows, buffaloes, sheep, goats, donkeys, horses, and camels, and see them irrigate their fields, raising the water by means of a bucket attached to one end of a lever, the other end loaded by a basket of stones or mud; or by the water-wheel pump propelled by a blinded camel, ox, or mule.

In a city like Cairo the Egyptians are a mixture of the descendants of the ancient Egyptians, the Arabs, the Turks, and

land controls Egypt, for although the English are proud, they are straighter morally than any other nation, our own, of course, excepted.



ARABIAN WOMAN AND HER CHILD ON THE DONKEY

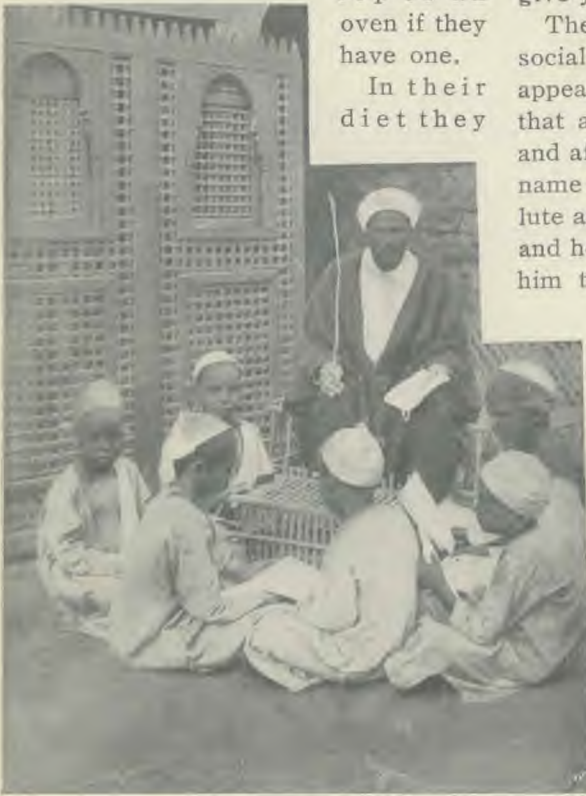
The simple, illiterate, superstitious Egyptian country-folk are an interesting study. They are the same to-day as in the time of Pharaoh, even though the country was flooded by the Arabs; for the Arabs have not changed the morale, but have themselves become Egyptianized. Even their religious ceremonies of marriage, circumcision, and burial are

not according to the doctrines of their prophet.

These natives are good-humored, industrious, and healthy, but they suffer much from parasitic diseases and tuberculosis, from which they could be freed if taught cleanliness and ventilation. During the summer they sleep out of doors, but during the winter they sleep in their air-tight mud huts on

top of an oven if they have one.

In their diet they



ARABIAN SCHOOL

use much fat and condiments. Their cooking is done over the fire, the ovens being used for the baking of bread and the delicious Egyptian bean, *Fool Midammis*, the morning dish of every true native. Here in Cairo the cooking is "Turko-Franco-Greco-Italian," and is horrible to a vegetarian. Every dish contains flesh, and is so well seasoned that the throat soon becomes inflamed,

so they drink much water while eating, but no coffee, wine, or beer. But during the day they drink many small cups of coffee, and smoke many cigarettes and *nargalaho* (water-pipes). At the close of the meal they exclaim, "*El Humdu-lillah!*" (Praise God!). When a guest drinks a cup of water, the host says, "*Haneeyan*" (With health), and the reply is, "*Hanakum Allah!*" (God give you health!).

The religion is so mixed up with the social system that a Moslem always appears very religious—so much so that a Westerner is at first astonished and afterward disgusted at hearing the name of God so commonly used. Salute an Egyptian with "How are you?" and he answers, "Praise God!" Ask him to play tennis, and he answers, "God willing!" ("*Insha-Allah*") when he really means "perhaps."

The middle and upper class are constitutionally lazy; they do not care for exercise. They sleep during the hot season, and ride in their carriages about sunset. But the English play their cricket, polo, etc. The English are certainly an example to these people, not only mentally and morally, but physically. But they drink much tea and spirits, which certainly have no good effect, judging from the way the English here

talk about their livers.

There is an abundance of vegetables and delicious fruit: fresh dates, figs, melons, oranges, pomegranates, and grapes.

The land is very productive, and the value of it is increasing every year. Just outside the city one must pay from five to twenty-five dollars per square meter. Rents are becoming as

high as in Chicago. The cost of living in Cairo is as much as in any large American city.

Where there is so much prosperity, so much money, as in Cairo, the people necessarily suffer from those ill conditions brought on by lack of exercise, overeating, loss of sleep, mental overwork, and other dissipations.

A sanitarium is much needed here.

It would be well patronized by the residents, and also, during the winter, by tourists. There is, near Cairo, a large sanitarium for tuberculosis, which during the winter months is kept very busy. But it is in reality [nothing but a hotel.

Life in Egypt is very enjoyable except during the hot months and some cool, damp days in the winter. To an intelligent person the country is most interesting. The ancient history unfolded by the grand old monuments built thousands of years ago, and the beautiful Saracenic ar-



WATER CARRIERS OF CAIRO

situated between Cairo and the Pyramids, contains forty galleries richly stored with mute witnesses that bear living testimony to ancient history.

chitecture, are well worthy of study. Egypt is a land of wonders, and one who enjoys the picturesque in life will find an abundance here. Especially is Egypt rich in relics of the remote past. Its ruins tell of the greatness of an antiquity that but for the Bible and these mementoes has almost passed out from the realms of knowledge. The Ghizeh Museum,

Passing along the streets, what pretty, cunning, dirty little children are here, so bright, clever, and lovable. Here are young men without home life, having no intelligent young women to associate with; young women, idle mentally and physically, who can neither read nor write. If one wishes to be of service to humanity, here is a people waiting for help.



VENDERS OF SUGAR-CANE

A FAITHFUL SENTINEL

BY D. H. KRESS, M. D.,

Sydney, N. S. W.



PATIENT once said to his physician, "Doctor, I believe there is something wrong with my stomach."

"Not a bit of it," replied the doctor. "God made your stomach, and he knows how to make stomachs. There may be something wrong with the stuff you put into it, or something wrong with the way you stuff it in and cram it down; but your stomach is all right."

Another patient said, "The stomach has come to be a curse to the human family." This man evidently longed for an iron-clad stomach, devoid of nerves.

The truth is, the stomach is not the offender. Like every other involuntary organ, it is under the direct and constant control of its Maker. Like every other organ, it has a specific work to do, and will do that work faithfully and well, without pain or inconvenience, providing it is properly treated.

The function of the stomach is to assist in converting good food into such a condition that it can be absorbed and appropriated by the system in building up tissue, repairing waste, and supplying heat and energy. A faithful sentinel protects the camp from disaster by reporting the approach of the enemy. Should we not expect a perfectly normal stomach, like the sentinel, to sound the alarm when food is taken into it that could only be converted into inferior blood and tissue, thus lowering the vital resistance of the body, and leaving it an easy prey to its enemy—disease?

The stomach, in a normal condition, always reports when an inferior quality of food is eaten, or when bad combina-

tions are made; it gives the warning when it is overloaded with even good food, or when good food has not been properly masticated or prepared, or when irregularity in eating is practiced.

When an enemy is allowed to enter camp without being molested or without the camp's being notified, it is evidence that something is wrong with the sentinel, and an investigation is necessary. The sentinel is either asleep at his post, or he has been foully dealt with, so that he can not report.

When men boast of being able to eat anything—pepper, mustard, pickles, vinegar, the flesh of dead animals, or even shingle-nails—without being disturbed or corrected by their stomachs, it is likewise evident that something is wrong and needs investigating. Inferior tissue is being brought into the camp; poisons are allowed to enter; ere long the individual is surprised by an attack of gout, rheumatism, neuralgia, or, worse still, the boaster is informed by his physician that he has Bright's disease, diabetes mellitus, or some other equally dangerous disease, from which complete recovery can not be expected, and he may further be told that by doing penance the remainder of his days, life may be prolonged a few years. It is well known that in nearly every case errors in diet are responsible for the diseases mentioned. These diseases are designed to awaken us to our real condition, and to lead us to correct perverted habits of life.

These diseases can not be cured by the administration of drugs, Christian Science, or so-called faith-cures. They can be cured only by the removal of

causes, the correction of the habits of living, and the co-operation with nature in the oxidation and elimination of accumulated poisonous products. I do not wish to speak lightly of faith-cure; the true prayer of faith will avail much. It will lead a man to see the errors of his life, and to try to correct them. Having brought himself into harmony with the laws of life and health, he may expect restoration just as prayer offered for a sick plant stored away in a dark, damp cellar might be answered by the Creator's enabling the praying ones to recognize the causes of the plant's unhealthy condition, and by his leading them to remove these causes by bringing the plant into the light, or into harmony with the laws upon which the health of plant life depends.

Very frequently patients come to their physicians, saying, "Doctor, I have a bad headache," "I have neuralgia," or some other disagreeable symptom, "and I want to get rid of it." To the physician's question, "Have you any difficulty with your digestion?" the confident reply is given, "Oh, no. My stomach is all right; I can eat anything," and the patient probably does eat everything. If the physician makes a physical examination, he often finds the following indications: Breath very foul, showing decay of foods in the stomach; tongue slimy and covered with a luxuriant growth of germs; stomach extremely dilated.

These are not unusual discoveries in such a case; in fact, such conditions nearly always exist, and show that bad digestion is the cause of the secondary symptoms that he is trying to get rid of. Such a person, on an aseptic and dry diet, composed of cereal foods requiring thorough mastication, nuts, and fruits, after a time is likely to come to his physician, saying, "Doctor, I had

no difficulty with my stomach before coming to you; now everything I eat distresses me."

"But," asks the physician, "how are your other symptoms, the headaches, etc.?"

"Oh," he replies, "my other symptoms are better. In fact, I have not felt better for years than I do at present, but my stomach bothers me. What does it mean?"

He is told that it means simply this: His stomach is coming into a more normal condition, is recovering from the paralysis, or anesthesia, produced by the poisonous products that have been generating there for years. Its nerves are assuming a normal condition, the telegraphic communications are again established between it and headquarters, so that digressions from the right can again be reported. The patient is assured that he is now on the highway to health, that the stomach will get back into a more normal condition, so that good food, properly masticated, eaten at proper intervals, and rightly combined, will create no feeling of uneasiness or pain.

By frequent violation of what we know to be right, the conscience may become so seared, as with a hot iron, that sin ceases to look sinful, and crime may be winked at or committed without a prick of conscience or a blush of shame. This is, however, a sad condition of mind. What conscience is to the soul, pain and ill feelings are to the body. When all kinds of abominable things are thrown into the system through the stomach without any ill feeling on its part, the stomach can be said to be in an equally sad physical condition.

Our aim should be to get back into such a condition that the least error in diet will at once be reported, just as

we would cultivate a condition of the mind so sensitive that the slightest deviation from right will cause feelings of uneasiness and unrest.

APPENDICITIS: SOME OF THE LITTLE-RECOGNIZED CAUSES OF THE DISEASE, AND SIMPLE METHODS OF PREVENTION AND CURE

BY J. H. KELLOGG, M. D.



THE increasing prevalence and fatality of this disease in recent times is a matter which has attracted public attention as well as the attention of medical men; hence it is a question of public interest. The name of this disease and its gravity were very forcibly brought to the notice of the whole civilized world by the postponement of the coronation of the King of England, necessitated by an attack of appendicitis, which compelled His Majesty to undergo an operation two days before the date appointed for the coronation formalities, for which the most prodigious preparations had been made, involving the gathering of scores of warships of all nations, princes, rulers, and governmental representatives from all parts of the world, and most elaborate preparations, on a scale of magnificence such as was, perhaps, never equaled in the history of the world.

The surgeons who operated upon King Edward did not remove the appendix, but only made an opening to drain the abscess which had formed as the result of the disease. They informed the King that it would be necessary to perform another operation upon him for removal of the diseased member when he had sufficiently recovered to make it prudent for such an operation to be performed. The King, however, decided that he had had enough of operations, and after a diligent study of the disease

and its causes, he made a decided change in his habits of life. As a result, he has steadily improved in health, and has not found it necessary to submit to another operation, not having once suffered from an attack of appendicitis during the past two years. He does not expect to have another attack, and has dismissed all idea of a surgical operation.

At least nine out of ten of those who suffer from appendicitis, including a large number of those who undergo operations for this disease, might be saved the suffering they endure and the great peril of life involved in an acute attack of this disease, by a simple correction of their habits of life. What change of habits is required by the ordinary individual is one of the questions which it is the purpose of this paper to discuss.

It is true of appendicitis, as of most other maladies, that the best opportunity for successful treatment is afforded before the disease begins. Every person who becomes sick is not well before he gets sick; that is, there are conditions of the body which favor the taking on of the special form of illness which asserts itself. Disease, like every other enemy, makes its attack in the weakest spot. A besieging army would not be so unwise as to attack a strong tower when the city gate was wide open; or, at least, if the attack were made simultaneously upon the

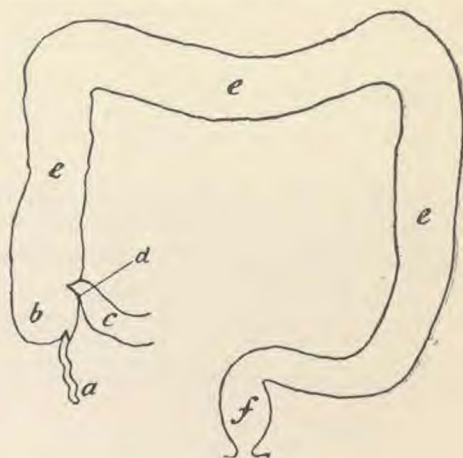
whole circumference of the citadel, the successful entrance would be made through an open gate, or through some gap in the wall, if such existed. So it is with the enemies which assail the citadel of life. Those parts which are in full health are strong enough to resist the attacks of germs and nearly all other enemies of life.

Appendicitis is a germ disease, but it is entirely powerless to attack any one who has not been prepared for the assault by a weakening of the part of the body in which this malady has its seat.

The Appendix

The appendix is a small pouch about the diameter of the little finger of a lady's glove, and two to six inches in length, and is attached to the lower end of the colon, the dilated portion known as the cecum. (See accompanying cut.) The small intestine joins the cecum at a point a little above the appendix. This is also shown in the cut. It is thus to be seen that the appendix is a little pouch placed at the bottom of a bowl-shaped cavity, into which is poured the residue of the substances taken into the stomach, a portion of which has been digested and absorbed while passing through the small intestine. One might easily conclude from this fact that the appendix would readily become filled with seeds of raspberries, strawberries, currants, and other seedy fruits, with cherry pits which are sometimes swallowed, and with other small, indigestible portions of food; but this is not the case. The mouth of the appendix is carefully guarded by an arrangement which allows exit from the pouch, but permits nothing to enter it. The examination of the appendix of thousands of cases has shown that as long as it remains in a state of health — that is, as long as it is not the subject

of inflammation or catarrhal disease — it contains nothing but mucus. Cherry pits, seeds, and concretions are never



a, appendix; *c*, small intestine; *d*, valve between small intestine and large intestine; *e*, colon; *f*, rectum.

found in it except when it is in a state of disease, and even then the presence of these foreign substances is comparatively rare. The diseased appendix very seldom contains anything else than mucus, serum, blood, or pus, except, of course, the multitudes of microscopic germs which are the direct cause of the mischief.

What Is the Use of the Appendix?

Study of the real function of the appendix led to the advancement some years ago of the theory that it is a sort of vestige or relic representing a large pouch, a sort of third stomach, such as is possessed by the beaver, muskrat, and other animals of allied species, the supposition being that man, in some past age when in a lower state of being, had, in place of this little pouch, a large organ possessed of important functions, the appendix being simply the useless rudimentary remains of a once important organ. The conclusion was drawn from this theory that the present use of the appendix is chiefly

to make business for doctors and surgeons.

Some American surgeons have even proposed that the appendix should be removed whenever opportunity offered, whether diseased or not. The absurdity of these notions appeared when Dr. Andrews, an eminent Chicago surgeon, pointed out somewhat recently the fact that the appendix performs a highly important function. Dr. Andrews has shown that the appendix is really a glandular structure, and that it forms and pours out in great quantities into the colon a glairy mucus which serves to protect the mucous membrane, not only by its lubricating properties, which facilitate the passage of the food substances along the intestine, thus preventing impaction in the colon, but also by protecting the mucous membrane from erosion through the action of the indigestible food residues which for many hours a day are pouring from the small intestine and falling upon this circumscribed area of tissue.

This mucus also possesses germicidal properties; that is, it is capable of destroying germs, as recently pointed out by an eminent French bacteriologist. This function of the appendix is a highly important one, since there is constantly present in the colon an enormous quantity of germs, which are only prevented from invading the body and giving rise to inflammations, abscesses, and various disorders by the defensive action of the living cells, aided to a most important degree by this germ-destroying mucus.

The appendix may have other functions, the nature of which is not yet understood. To pronounce it a useless organ, a vestige or a relic of some by-gone age, is simply a confession of ignorance.

The Cause of Appendicitis

It is evident from the above that the portion of the bowel to which the appendix is attached is more exposed than almost any other to injury from irritating and unwholesome substances which may be taken in with the food. A simple experiment will enable one to appreciate this. If very hot water is poured continuously for a few seconds upon a small surface, as, for example, the back of the hand, great pain will be experienced; but if the surface upon which the water is falling is constantly changed by a continual movement of the limb, no pain may be felt, and no injury will be done, even though the water may be hot enough to blister if allowed to fall uninterruptedly upon the same surface. The exact portion of the bowel to which the appendix is attached receives a constant stream of matters from the small intestine; hence, whatever irritating or otherwise injurious property may be possessed by the intestinal contents, will be more intensely manifested at this point than at any other. If the chylous contents of the intestine contain a large amount of foreign substances, almost every single particle will be brought in contact with the mouth of the appendix. If the chyle contains mustard, pepper, various spices, fragments of pickles, horseradish, and chilli sauce, such hot and irritating substances as Worcestershire sauce, curry, and other substances capable of producing a blister upon the skin or of irritating sensitive surfaces, these substances will produce irritation about the mouth of the appendix. The basin-like lower end of the colon acts, in fact, as a sort of catch-all for coarse particles and all indigestible, irritating fragments of the food, thus in a special manner tending to produce inflammation in this portion of the bowel.

Another point at which a similar deposit occurs is the sigmoid flexure of the colon, located just above the rectum, and also the rectum, the lower end of the colon. Ulceration of the rectum, hemorrhoids, chronic irritation, fissures, and catarrh of the entire colon, manifested by the presence of mucus in the fecal discharges, are common results of the action of the irritants referred to; but the cecum, or first part of the colon to which the appendix is attached, is, more than all other portions of the colon, subject to chronic irritation and inflammation, for the reasons above pointed out.

Another cause of irritation of the colon, and especially that portion of the colon to which the appendix is attached, is the use of laxatives, mineral waters, and purgatives of all kinds, especially the frequent use of calomel, blue mass, and other mercurial laxatives. It has been suggested, with a reasonable show of probability, that particles of calomel or blue mass, lodging in the lower end of the colon, about the mouth of the appendix, may be converted, through the action of common salt, into corrosive sublimate, an extremely irritating substance, which may readily poison the tissues so as to make them subject to the action of germs, and thus incapable of defending themselves against the action of the germs which are always swarming in the contents of the colon. It will readily appear that the different causes above mentioned, to which might be added the large use of flesh food, fish, oysters, the hasty eating of coarse vegetable substances, including unripe fruit, hastily swallowed hard fruits, as cherries, and various other dietetic digressions, may easily become the cause of appendicitis. The excessive use of flesh foods, and particularly of

fish, shellfish, and cheese, leads to appendicitis by encouraging the growth of germs in the colon. On a diet of fruit, or fruits and nuts, or of fruits, grains, and milk, or a pure milk diet, few germs are found in the colon; while on a diet of cheese or meats, and especially when fish and shellfish are freely used, germs are present in enormous quantities, their growth being encouraged by the presence in the colon of portions of undigested flesh, in which the growth of germs is readily enhanced by the warmth of the body, and other favorable conditions afforded in the colon.

All alcoholic liquors, whisky, gin, brandy, wine, and beer, are powerful agencies for producing that weakened condition of the alimentary canal which predisposes to appendicitis. The use of tea and coffee tends in the same direction, by interfering with the stomach digestion, and thus disturbing the whole alimentary canal. The use of tobacco lowers the general vital resistance to a remarkable degree, and thus predisposes to appendicitis as well as other internal inflammations. It is a notable fact that women are comparatively little subject to appendicitis. Cases of appendicitis in women are almost as rare as cases of hysteria in men. This exemption of women may be well attributed, in large part at least, to the fact that women are, as a class, much less addicted to the use of liquor and tobacco than men.

It is thus very evident that the portion of the intestine to which the appendix is attached is, perhaps, more liable to congestion, inflammation, and catarrh than any other portion of the alimentary canal. The parts are first irritated from the various causes named, thus being brought into the condition of wounded or paralyzed soldiers; and are

incapable of defense against the swarms of germs which invade the tissues, thus getting inside the citadel of life, where they set up various morbid processes, causing swelling, inflammation, catarrh, and other changes. These changes gradually creep down into the appendix, so that this organ becomes secondarily diseased.

Probably appendicitis really begins in the colon, at least in the great majority of cases. If one, then, does not desire to suffer from appendicitis, he has only to regulate his diet in harmony with natural and sensible rules. He must avoid overeating, too frequent eating—three times a day is certainly sufficient, and many do better with two full meals a day, taking, perhaps, a little fruit at night instead of anything more hearty; he will take great care to avoid entirely the use of irritating foods, fried foods, rich sauces, which render the food indigestible, pickled olives, pickled walnuts, cucumbers, and other indigestibles, together with spices and all irritating condiments. He will feed himself in a rational way, for it is evident that appendicitis really begins at the table. Regularity of the bowels should be maintained by the free use of fruits, whole-meal bread, and nuts at mealtime, taking pains that the nuts are thoroughly masticated before swallowing, so that they may not become a source of irritation. The habitual use of all kinds of nostrums must be avoided, and drugs of every sort which are commended for the cure of constipation; for however useful a drug may be, at times, as a means of temporarily exciting intestinal activity, the habitual use of drugs, whether under their natural form or under the guise of mineral waters, is highly injurious, certainly aggravating the very condition which they are expected to relieve.

The Proper Treatment of Appendicitis

Experience has shown that about ninety-five per cent of all cases of appendicitis can be cured by proper treatment without surgical intervention; but surgery is undoubtedly required in a certain proportion of cases, and hence a competent surgeon should be called in every case, so that any indication for surgical interference may be recognized at the proper moment. But there are certain things which may be done by any intelligent person which are of great service in combating the fatal tendency of this disease, and which are capable of effecting a cure in the majority of cases. These measures are essentially the following:—

1. Absolute rest in bed at the occurrence of the first symptoms of the disease. These symptoms, in a mild case, may be nothing more than pain just above the right groin, accompanied by a chill and fever. In a chronic case the chill may be absent. In a very acute case the pain will be most severe, and vomiting will also be present. As the case advances, the symptoms become more serious as the inflammation extends to the neighboring tissues.

Swelling may appear in the right and lower abdominal region, with great tenderness. There may be symptoms of intestinal obstruction, peritonitis, and grave collapse, and finally discharge of pus through the bowels or even externally; but prompt action should be taken before the appearance of the symptoms named. If a surgeon is in attendance, radical measures will be employed before the most serious symptoms mentioned have had time to develop. Rest in bed prevents aggravation of the symptoms, and affords opportunity for the operation of natural processes of healing, which are active in every case of disease; for the body

heals rather than the physician or the remedies applied.

2. All solid food should be withheld until the vomiting has long ceased, the patient's temperature returned to normal, and the pain greatly subsided. No food should ever be given until the bowels have moved. The patient may fast two or three days, and even a longer period, without detriment. Water may be swallowed as freely as necessary to allay thirst, but no food of any kind should be taken, not even liquid food, fruit juices, or anything whatever except water. It is especially necessary to avoid milk and meat and all other food substances which can readily undergo decomposition. When all the active symptoms have disappeared, the patient may be allowed to take a little rice with a dressing of fruit juice, granola, granose, rice flakes, malted nuts, or sweet fruit juice. Fruit soup, a common article of food among the Germans, is also excellent. Cane-sugar, acids, tea and coffee, and all irritating foods and coarse vegetables should be avoided.

3. The bowels should be thoroughly emptied by a large, hot enema, temperature 100° to 105° . A little soap may be added to the enema to encourage the movement of the bowels. Half a pint of pan-peptogen diluted with an equal quantity of warm water may be used instead. This is an excellent means of moving the bowels when other measures fail.

4. A large fomentation should be applied for fifteen or twenty minutes every two hours. The fomentation consists of a large flannel cloth — half a woolen sheet is about the right size — folded lengthwise, and the central portion dipped in very hot water, and quickly wrung out by twisting the ends. This should be applied to the body

in such a way as to cover the lower abdomen, extending around the right side as far as the spine. The dry ends should be so disposed as to cover well the moistened portion, so as to retain the heat. It is a good plan to put a dry flannel over the skin before applying the fomentation, as a precaution against burning the skin, while also permitting the application of a fomentation at a higher temperature, thus maintaining the effect for a longer time. When the fomentation is removed, at the end of twenty minutes, or a little longer if necessary to relieve the pain, a heating compress should be applied. This is easily managed in the following way: Take a small towel, and wring as dry as possible out of cold water at the temperature at which it flows from the pipes. Apply this over the whole surface which has been reddened by the fomentation. Over it place several thicknesses of flannel, sufficient to prevent cooling by evaporation. At the end of fifteen or twenty minutes, when the towel has become thoroughly warmed, renew it in the same way, taking care to keep the parts covered while the towel is being cooled and wrung out.

If this treatment is beneficial, as it is almost certain to be, the fact will be evidenced by a considerable relief from pain; and by continuing the treatment the pain will gradually subside until it disappears, and only soreness is left behind. The treatment should be continued assiduously, the fomentation for fifteen or twenty minutes every three hours or even every two hours, if necessary, and the heating compresses renewed every fifteen or twenty minutes during the intervals.

If the fomentation does not relieve the pain, a larger one may be employed. A whole blanket may be wrung out of

hot water, and wrapped about the hips and legs. The application should be as hot as the patient can bear, so as to cause the whole surface of the limbs to become very red. This will draw the blood into the legs, and lessen the congestion of the affected parts. After the hot application, the heating compress should be applied to the legs, so as to retain the heat. The best plan is to apply a large wet towel, wrung out of cold water, to each limb, wrapping snugly, and then covering each leg closely with a woolen blanket. It is a good plan to apply mackintosh or oiled muslin outside the towel before applying the woolen blanket, so as to be sure to promote thorough heating of the limb. The object is to secure the effect of a poultice upon both legs, and thus maintain the diversion of blood into the limbs.

In addition to the fomentation, the hot hip and leg pack and other hot applications, and the ice bag should be employed. The bag, filled with broken ice, should be placed over the seat of pain. In some cases two ice bags are necessary. Care should be taken that the patient is well warmed before the ice bag is applied. The best effect is obtained from the application of the ice bag in connection with the hot hip and leg pack, the pack being applied first, then the ice bag being slipped underneath. The ice bag may be combined with the fomentation in a similar way, or, with a hot foot bath.

The application of the ice bag may be continued after the pack, which should be repeated every two or three hours. The legs should be kept thoroughly warm during the interval by the measures above described, or by means of hot water bags, hot bricks, or jugs or bottles full of hot water. When the ice bag is employed, it should be removed

every twenty or thirty minutes, and a fomentation applied for five minutes, so as to avoid benumbing the nerves of the skin.

The foregoing measures will succeed in the great majority of cases, affording prompt relief from the pain, and rapid subsidence of the inflammation. When it is found that the fomentation increases the pain, this is an evidence that suppuration is taking place, and this constitutes an important guide to the surgeon as to the necessity for operation and the time when operative interference is required.

There is much more to be said about appendicitis. The writer has not undertaken to treat the subject exhaustively or in a professional way, but only to offer a few suggestions which may be of service to the lay reader. It is desired to emphasize two points especially: First, the necessity for so regulating the dietary as to prevent the occurrence of this disease by avoiding its principal cause; and, second, the importance of employing a competent physician at the first indication of the malady, and of being able to second the efforts of the wise physician by knowing how to employ these simple measures, which are far more effective than drugs of any sort in combating the morbid processes present in this as well as in other forms of local inflammation.

A person who has once suffered from appendicitis should resolve not to suffer again. The risk is too great. Removal of the appendix will of course render a subsequent attack impossible, but by proper care in diet, practically the same immunity may be secured. Appendicitis does not occur without a provoking cause. Some error in diet is without any doubt the provoking cause in the majority of cases; constipation, or looseness of the bowels result-

ing from the eating of some unwholesome, irritating article of food,— something which awakens to pernicious activity the germs which in countless numbers are always lurking in the colon. Every article of food capable of producing gastric or intestinal irritation must be discarded.

It is especially important to give careful attention to thorough mastication of the food. Thorough chewing, or Fletcherizing, is one of the very best possible precautions which can be taken against this disease. If all food is reduced to a liquid state before it leaves the mouth, and if nothing is swallowed which can not be made liquid in the mouth, the food will be so well digested that the stomach and intestines will be kept in a healthy state, and able to resist any tendency to appendicitis.

The general health must be kept at a

high level, so that the general vital resistance will be great, by means of an outdoor life, vigorous exercise daily, the daily cold bath, and regularity and temperance in all the habits of life. The occurrence of appendicitis is evidence of low vital resistance. There may be an appearance of health, but nevertheless the body has lost its resisting power, and become vulnerable to the attack of parasitic organisms. This remark applies equally well to tuberculosis, pneumonia, and most other microbial diseases. The body is created capable of resisting these germ enemies, but when, by wrong habits, the vital resistance is lowered to a sufficient degree, these pernicious organisms gain a foothold in the tissues, multiply, and produce poisonous substances, and in this way give rise to disease.

HARMLESS HYPNOTICS

BY REV. WALTER A. EVANS, A. M.



CHICAGO daily recently announced the discovery in Germany of another "harmless hypnotic." The same kind of announcement has been made by the popular press at various times for many years past. So many and "harmless" have hypnotics become that the average individual of education and reading is quite well acquainted with them, at least by name. Sulfonal, trional, somnos, chloral, paraldehyd, and the various forms of bromid are about as well known to the more intelligent classes as to druggists and doctors. Their use is a growing and terrible evil, and the testimony of one who has himself been a victim may be a warning to some other poor mortal not to come into "this place of torment."

In the United States at the present day there is a feverish tension upon the nerves of people who are industrious and ambitious. The term "Americanitis" has been invented to characterize that nervousness and excitability, restlessness and discontent, which have become the bane of the American people. Within the past twenty years all occupations have become less manual and more mental in their prosecution. Even farming, the most healthful of occupations, has now become, in the best places, an occupation requiring much study and research in order to gain large success. And "success," in these days of covetousness, has become almost synonymous with "making your pile," so that the moderate prosperity of our grandfathers, under which

they made money to live, has given place to a godless greed under the influence of which men live to make money. The clock of a man's life, these days, must strike twelve before he is forty. Eminent examples of "successful men" in the thirties spur on aspiring men to their utmost. The result is that we are living, as a nation, at a pace that kills,—the nerves strained to such a tension as probably no nation at any time in history has ever equaled. Now the nervous system is precisely opposite to the muscular system in one respect; viz., under great fatigue of the muscles the subject lapses at night into a profound slumber, takes in the night at one great gulp, and arises next day refreshed; while under great nerve-weariness the subject tosses through the night without sound sleep, and arises in the morning more tired than he was at bedtime, when the excitement of the day gave him a false strength.

How fortunate (?), then, is the discovery in this "strenuous" time of so many "harmless hypnotics"! Insomnia, as the writer knows from awful experience, is the most terrible of suffering, the king of terrors among diseases. It leads to all other suffering, and will smash the strongest constitution to pieces. The number of people who are sufferers from insomnia (and indigestion, which always goes with it) is, as the writer has observed from his own experience, very much larger than most people are aware. Nothing is so harrowing to body and to mind; for the nervous system, that has all to do with one's feelings and thinking, is wearing out continually, except during sleep. So a multitude of people are resorting to some of these "harmless hypnotics" as a relief from what seems to them a condition utterly intolerable.

Now all hypnotics, in order to be

such, must be powerful depressants to the nervous system (unless we except a few *natural* food hypnotics like onions and lettuce), and the more they are used, the more they have to be used, until in time the nervous system becomes more or less dependent upon them. Sulfonal and trional and other coal-tar products, as well as codein, may be taken for a long time without inducing any such habit as follows the use of morphin or chloral or any of the bromids. But these preparations are injurious to the stomach and kidneys, and to the heart also, if long continued; while their depressing effect upon the nervous system as a whole is like that of a heavy weight upon a coil of wire spring. It holds it down for a while, but it does not strengthen it, and when the pressure is suddenly removed, the spring is in danger of being snapped in pieces by the rebound. The effect of any hypnotic when used even semi-frequently is to make natural sleep more difficult to be obtained; or, in other words, to weaken the nervous and mental forces. When it is left off, the sufferer, without the usual depressant, is far more nervous and has much more suffering to endure than if he had never used it at all. The case is precisely like that of a drunkard, who, to escape the misery of an abnormal craving, takes a drink, which leaves him with a deeper craving, which in turn he relieves again with drink, till he becomes a nervous and a mental wreck.

Here is a cause of many cases of that most awful of human maladies, neurasthenia, which causes such terrible suffering of body and mind that the victim longs to die to escape it. From it there is no possible escape except by years of such suffering as no one who has not endured it can imagine,—outraged nature returning by slow and impercepti-

ble degrees to the normal, if ever she does.

A person who uses hypnotics, even occasionally, will, under their bolstering effects, continually overdo if he is ambitious. He will go on burning the candle of nervous force at both ends, and be totally unaware of it till the crash comes. The finer the nervous organization,—the more sensitive the quality of nerve and brain,—the more terrible will be the crash, as well as the prolonged sufferings of recovery, if, indeed, there is a recovery. The use of hypnotics may prolong a man's working capacity for a time, but it does it at the expense of the best of him, and the crash, when it does come, will be the more terrible.

The writer knew a Methodist minister in New York who suffered from attacks of neuralgia after severe mental exercise. To ease the pain he used cocain externally, and to secure sleep he used chloral internally,—at first very seldom and in small doses, at last habitually and in big doses during an attack. He fell morally and mentally, and finally went to an insane asylum, his sufferings being uncontrollable. When all drugs were taken from him, he knew the agony of thirty nights in succession almost wholly sleepless, and became a walking skeleton before nature began to assert herself in sleep and nutrition. Such cases are quite common. But far more common are the cases of those who suffer a living death of nervous wreckage at home till death relieves them after years of perpetual torment.

The writer was induced to publish this by his own experience, which he gives herewith as a warning to others. From a child he was ambitious to be a minister of the Gospel, and he entered that calling early in life. He prose-

cuted his work with a zeal and fervor born of deep spiritual convictions and a nature high-strung and ardent. He could not work at all without working with all his might. Being of an exceedingly sensitive nervous organization by inheritance, he early in life as a student began to suffer with insomnia; the tired brain, so intent and strained during the day, refusing to relax and rest during the night till near morning. After years of insomnia he took to bromids and sulfonal occasionally as a relief from suffering. He never used them habitually,—sometimes not for many weeks, or even months, at a time. They were always used, if at all, after a prolonged strain of hard mental work. Instead of stopping work till nature could rest, he swallowed fifteen grains of sulfonal and slept. He awoke apparently refreshed and rested. But it was *not so*. Tired nature had only been beaten into silence and was unable to protest against the outrage against her. This condition, covering up the trouble instead of curing it, led to more overwork, and this to more insomnia, and this again to more hypnotics when tired nerves could not relax and give rest. So it went on for years. Two weeks before the crash came, he could have passed anywhere for a model of manly strength and health, weighing two hundred and five pounds and being "as strong as a horse." But he was like a house in Australia, the pillars eaten out internally by termites and ready to fall. He went down in ten days with a crash. The rest is soon told, though it took so long to suffer it: eight months almost entirely without sleep,—only about a dozen nights' sleep in three years; body reduced almost to a skeleton; till now, for a number of months after almost four years of living death, the luxury

of sleep is enjoyed, and nature is slowly asserting her mastery, blessed and healthful, in sound sleep and good digestion.

Conclusions; (1) If you are a sufferer from insomnia, seek the cause. It will probably be found either in poor digestion or in an overstrained nervous system, or both. If your place in life seems to *necessitate* overwork of the nerves, as with the writer, *get out of it*, at any cost and *at once*. Better a hod-carrier that can sleep than a premier or a king that can not sleep. Take it in

time. Go to the Battle Creek Sanitarium and learn to live and rest. Get the rest of nature!

2. Never use a hypnotic unless it is to relieve an acute illness which causes great pain, and then only by the prescription of an educated and conscientious physician. A hypnotic is never an unmixed good. At best it is the less of two evils. Get the rest of nature if you have to do what the world calls "coming down." For awful beyond description are the results of not doing so.

BATTLE CREEK SANITARIUM DAY AT THE WORLD'S FAIR

(Concluded.)

The Value of the Battle Creek Sanitarium System in the Battle against Stimulants and Narcotics

DR. D. PAULSON: The most touching sight in this world is a poor, miserable cocain or morphin victim. I have seen sad things, but there are something like one hundred slaves of the drug habit who have been the saddest things I have met.

The Bible says, "The curse causeless shall not come." Why is all this?—I will tell you briefly. A suffering patient pleads with the doctor for relief. The doctor gives a grain of morphin which will relieve him temporarily. Soon the patient finds out that it is not necessary to go to the doctor; he can go to the drug-store and get the morphin himself. That is how the army of one million of morphin users in the United States to-day is marching down that terribly sad and painful road. It is

the same with cocain; and cocainism is the shortest road to the insane asylum.

When I first began dealing with these cases I was told by my college professors that we must "taper off" gradually, and give them stimulants, such as strychnin, etc. But I decided that these great principles of which we are speaking to-day are the touchstone to deal with these cases; so, instead of using some other stimulant to offset the depressing effect of these drugs, I began to use physiologic tonics,—cold mitten frictions, cold sheet rubs, etc. I put the patients on a simple dietary with no irritants, and was surprised to find that more than one-half of those under my care never asked for another dose, though ordinarily they will plead as piteously as a hungry child for food.

Just a hint with reference to the great liquor evil: One case will give you a glimpse of what these principles



DR. DAVID PAULSON

will do when temperance reformers take hold of them. A poor fellow came into our dispensary in Chicago who had been on a drunken spree and was dropsical. We took him into our wards, treated him according to these principles of healing, and he came back to health. When he left, I said, "If you go back and live just as you did before, you will be drinking again." A few weeks later he was brought back into our ward, his legs so dropsical that the skin had burst in places. I thought he would surely die, but that wonderful healing power with which we sought to co-operate brought him back from the brink of the grave. When he was well, he said, "I have learned my lesson. The first few days after I left I ate simple foods. Then some friends gave me a square meal,—pork chops, mustard, pepper, etc.,—and I had no more than finished when I had to go and get liquor." I told him where he could get a simple, pure dietary. A few weeks later the vice-president of the Prudential Insurance Company, New York, called upon me and said, "We want this man to work for us. Will he keep sober?" I said, "He will as long as he eats the right kind of food, but he can't help drinking when he gets the thirst aroused." Then he said, "I will put it in the contract that he is to eat and live after your style." Months passed; the man gained thirty pounds in weight, and was doing a splendid business. Occasionally he would come round to thank me. One day his stomach was troubling him and he came to see me to get something to settle it, but I was out. He went to a druggist, who gave him something with alcohol in it, and immediately he was off to a saloon.



W. S. SADLER

There is a great ocean of possibilities in these remedies and methods in the battle against stimulants and narcotics. If a foreign army were coming in and destroying as many of our citizens each year as these habits are, every patriotic man would rise up in defense. I hope every one of you is doing what he can with right principles and right methods.

The Battle Creek Sanitarium in the City Slums

W. S. SADLER: Ten years ago there was not a single place in Chicago where a man could get a free bath or obtain a vegetarian meal. At that time Dr. Kellogg proposed to take a sum of money given him by two brothers from South Africa, and open a Chicago Medical Mission, and thus enable the unfortunate ones of the slums to share some of our physical and spiritual blessings.

The police district where this work was first established is declared to be one of the worst in the world, as one person out of every four is arrested there every year. It was here that the first free baths in the city of Chicago were established, and the foundation laid for the many-sided work which has since grown out of that humble beginning. In all this work a continuous effort is made to hold up before discouraged men and disheartened women the transforming power of the Gospel of Jesus Christ for mind and soul, and the regenerating power of righteous living in behalf of the physical nature.

On the way to the station as I was about to leave Chicago, I copied the menus in front of two restaurants. I want you to compare these with that of the Workingmen's Home, where a poor

man can get a good meal for four or five cents. When the principles of the Sanitarium invaded Chicago's slums, the only food one could get in this part of the city was that sure to develop a whisky appetite. See if you do not think this is enough to drive any man to drink:—

Pork chops, pork sausage, Hamburger steak, ham and cabbage, corned beef, roast pork, roast beef, red hots, hot tamales, liver and onions, kidney stew, ham and eggs, Mexican hash.

Let us look at the second menu:—

Clam chowder, pickled pigs' feet, coffee and doughnuts, fried oysters, liver and bacon, sardines, cheese sandwich, shrimps, little neck clams, Frankfurts and sauerkraut, spare ribs, calves' brains, ham sandwich, Finnan haddie.

Now let me read by way of contrast the list of what a man can get at the Workingmen's Home, and you will see what dietetic reform is doing in the slums of Chicago:—

Bean soup, baked potatoes, sweet potatoes, boiled rice, macaroni, peas, tomatoes, poached eggs, granola, granose, zwieback, apples, peaches, grapes, caramel cereal, and milk.

The opportunity to get good nutritious food hygienically prepared is worth more to the inhabitants of the slums than all the theoretical preaching and prosy writing you can offer them.

The physiologic remedial agents used at the Battle Creek Sanitarium are just as effective when used in the slums. Cold water sobers a drunken man just as quickly whether run out of a garden hose or through a nickel-plated nozzle. We should not know how to carry on our work in behalf of the submerged tenth if we did not have combined with our ministry the powerful weapons contained in the principles of the gospel

of health. These principles of truth for soul and body which have proved the transformation of so many men and women in our sanitariums are just as efficient in uplifting the social and moral "incurables" in the slums.

I have no faith in the doctrine that criminals are born. Humanity is dragged down by a defective social system, vicious habits, and unholy environment. We should hold out to these imprisoned souls the liberating truth of the grand old Gospel, and teach them how to live so as to purify the morals and regenerate the body.

Battle Creek Sanitarium Methods Abroad

A. J. READ, M. D., Supt. Institute of Physiological Therapeutics, Philadelphia, Pa.: Perhaps in no place is the value of the Battle Creek Sanitarium system so fully demonstrated as in the foreign field. It is of value in the foreign field, first, because of its convenience. Water, pure food, and exercise are means that can be used in any country and under almost all conditions. The mountain streams supply usually an abundance of cold water. For hot applications the natives

have a custom of heating a stone and wrapping it in leaves, and it makes a most excellent substitute for the hot water bag. So the system is practical and convenient in the foreign mission field.

It is also effective—perhaps more so than among people in this country. There is a marked distinction between the effect of simple natural remedies upon people who live close to nature and upon people who are under the influence of intemperate customs and modern civilization.



DR. A. J. READ

I have heard missionaries unjustly maligned because of their extravagance; but I do think there is one way in which extravagance is exercised in foreign missions,—that is in the method that is in vogue of treating disease. I knew one who had two remedies that he could dispense bountifully—calomel and jalap; and the effects were to be seen on the people, young and old, who lived on the island. It was extravagant, both from the first cost of the remedies, and from the terrible destruction of health and happiness of some who took the remedies.

The Sanitarium system is of value from the economic standpoint, and because it preserves the health of the people; also because it saves the lives of the missionaries. Those who practice the Battle Creek Sanitarium system are able to live in perfect health in some of the most difficult climates. In the tropics, where I have been myself, some of the missionaries have been able to do the most trying work.

This system is also of value in the mission field because of its moral influence. Many of the converts, at the close of their night meetings, have a great feast. It is notable that the day after one of these feasts many of them indulge in intoxicating substances and backslide, and have to be suspended for a month or two. It has been found that where the natives were taught the importance of regular hours and eating simple food, they retained their morality, and intemperance was scarcely known among them.

This system is to-day being carried out in India, China, Japan, Africa, Australia, and nearly every country on the globe, by physicians who received

special training at the Battle Creek Sanitarium. Besides these, a large corps of nurses and other workers who have had instruction in the same institution are carrying out these principles in the foreign field, and every mail from abroad brings some statement of the immense amount of good that is being done by these faithful representatives.

Practical Results of the Sanitarium System



DR. MARY PAULSON

DR. MARY PAULSON, Hinsdale, Ill.: I have only time to cite to you one case, which will perhaps illustrate my subject. Almost four years ago we received a postal card from a poor girl about seventeen years of age, saying: "Won't

you help me? I am in trouble." One of our nurses called and found her in an unfortunate condition. We took care of her during her trouble. While with us she learned of Sanitarium principles: how to eat, eliminating from her diet fiery foods that produced a fire in her system, and stimulants that caused her to fall; how to dress, leaving off corsets and tight bands. She also became a Christian, and joined the church before she left our hospital. But unfortunately she was called home again, where she was obliged to partake of foods which were not good. After some time she fell again, and again we helped her. But when it was time for her to leave the hospital we put her in a home where we knew the Sanitarium principles would be carried out, and to-day she is a good Christian girl. There are many similar cases that I could tell you of. Is it not a shame that every home does not have in it these Sanitarium principles that would keep our girls from falling?

Battle Creek Sanitarium Ideas from the Standpoint of the Naturalist and of Civilization

MR. PHILIP JOHNSTON*: I shall speak first of all from the naturalist's standpoint; secondly, from the standpoint of civilization; thirdly, from the standpoint of great men.

In the "Voyage of the Beagle," one of Darwin's lesser known works, he tells of discovering an island on which the animals were not afraid of man; the sailors could strike them down one after another, and the animals did not run away. Is there any territory from which the products are drawn that make up this vast, soul-stirring exhibition, in which you could walk along and strike down the animals with a stick? No, they are all afraid of man. If the Battle Creek principles prevailed in the world, the animals would not be afraid of man, and he certainly would not strike them down. It was a book of Dr. Kellogg's which I first read in South Africa that set me thinking along these lines. I



DR. C. C. NICOLA

feel to-day like a pupil at the feet of his master.

I shall now address you from the standpoint of civilization. Now, look here, you Americans, I landed here only about a week ago, but I have noticed some of your characteristics, and one of them is that you are just a little too conceited about yourselves. I want you to consider that yours is not the only civilization in the world. Yours is a progressive civilization, but there are stationary civilizations just as much entitled to

consideration, and one of them is India, and the other is China. The Hindus are chiefly rice-eaters, and regard the life of animals as sacred. In China, I understand, the law is that the doctor is paid only when people are well. If I pay the doctor only when I am sick, I am paying him (if he were to consider his own interests) to keep me unfit for work. If you Battle Creek people could only get the United States Congress to change the laws so the doctors would be paid only when every one in the community was well, you would make your fortune in no time.

In speaking with reference to great men, I wish to appeal to by far the most important half of the world — the women. Really, I do not care a snap of my finger if I carry the men with me or not, but I take every opportunity to carry the women with me. Goethe represents Faust as finding everything worth knowing in this world as of little value, and committing several crimes in the ordinary judgment of men, but he represents him at last as being brought up to heaven by a woman. Dante represents himself as being led through Inferno by a man, but in Paradise he is under the leadership of a woman. One of the grandest things in America is the place accorded to women. I hope you will give them even a higher place in the future, and this will do more than any teaching you accord to your young men. If you are sure of the young women, you may be sure that their sons will follow in their principles.

The Battle Creek Sanitarium as a Factor in Medical Progress

DR. C. C. NICOLA: The Battle Creek Sanitarium has achieved no less notable results in the medical profession than in any of these other branches of which you have heard. But a few years ago

* Introduced by the Chairman as an Irish delegate to the Vegetarian Congress who had become acquainted in South Africa with the Sanitarium principles.

the medical profession was one of the most conservative. Implicit faith was placed in drug medication, and any attempt to introduce natural methods was regarded as quackish; but to-day the whole trend of thought in medicine has turned. This may be called an age of natural remedy, of physiologic medicine. The president of the American Medical Association, speaking a year or two ago of the changes that have come about, said that out of all the long list found in the pharmacopeia there are only two drugs upon which we can depend—quinin and mercury. The president of the Massachusetts Medical Society said in his address this last year, "All these methods we have been depending upon for so many years are failing us, and the medical profession is turning away from these things to natural remedies, such as water, light, food, heat, etc.

The Battle Creek Sanitarium has had a very strong influence in this change, for it has been teaching and practicing these things for twenty-five years. After I had read a paper for Dr. Kellogg at a meeting in Boston, the president, in commenting on the excellent methods outlined, said, "The Battle Creek Sanitarium is twenty-five years ahead of the rest of us, and has been all the way along." The literature that has gone out from that institution has helped to influence and modify the sentiment of the profession as well as of the laity. In our part of the country nearly every physician has "Rational Hydrotherapy," sent out from the Battle Creek Sanitarium to the profession. They are anxious to learn of the methods, because they are recognizing that they count. The large number of patients that have gone out from that institution cured, has demonstrated that the methods in use there are effective.

The Battle Creek Sanitarium has been a marked factor in the progress of the medical profession because the principles that have been followed there are founded on truth; and we may depend upon this, *Truth will win.*

Moline Sanitarium

DR. S. P. S. EDWARDS: What is the status and province of a sanitarium? Our sanitariums are not to supersede the family doctor, the general practitioner, but rather to supplement his work. Physiologic medicine demands that we shall have facilities for utilizing every rational method, involving the application of all natural forces,—facilities that the ordinary practitioner can not provide in his private practice. Again, these principles demand that scientific instruction be given, not only for the cure of the sick, but for the maintenance of the health of the community at large.



DR. S. P. S. EDWARDS

Our work at the Sanitarium at Moline depends largely upon the efforts of the physicians there in sending us patients. The other day a neighboring physician telephoned us: "I have a man I want to send over to you. I would keep him here and take the money myself, but I can not direct his diet at home, or the influences that surround him. I want you to have him where you can exert the right influences upon him." The patient came to us, and is learning how to live, how to eat, how to take care of himself generally, and is already in a much improved condition physically and morally.

The sanitarium methods are not founded on the study of the results of

one or two men's ideas. Send to the leading schools, to the authors of our leading text-books, to the leading lights in the medical profession in this country and abroad, and you find that the physiologic therapeutics we are employing are recognized as the highest type of remedial agencies used in the



DR. W. A. GEORGE

world to-day. We are glad that Providence has led us to a system of principles based upon truth, not only high in a moral sense, but strictly scientific, and in the forefront in the battle for reform.

The Sanitarium: Its Status and Province in Scientific Medicine

DR. W. A. GEORGE, Lincoln, Nebr.: We are all glad that we can have the Battle Creek Sanitarium as a leading light in this great reform movement, but we feel that a sanitarium is needed in every State, in every large city.

The position of the sanitarium in the world is to educate not merely the people, but the physicians themselves. The physicians as a rule need to have a higher standard of living set before them, so that they can teach the people of the entire community. We have tried to lead them to see the importance of diet reform. We invited all the physicians of the County Medical Society to a vegetarian banquet, and a large proportion accepted the invitation.

We must get the people who come to our sanitariums to see the importance of working for health. The great danger is that they will depend on the physician simply when they are sick, without making an effort themselves.

We say to our patients when they come to us, "If you expect to get well, you must work for it, and work hard; you must think health, talk health, and live health." We can, by means of the sanitarium movement, get the people to realize the importance of taking care of their bodies in order to retain the health they have, and when they are sick, the importance of following right principles in order to regain health.

DR. E. COLLORAN, Des Moines, Iowa: If you were to visit the Iowa Sanitarium, organized four or five years ago, you would hardly think it was a daughter of the Battle Creek Sanitarium; you would take it for a full-grown sister. We have there a vegetarian café that supports not itself only, but other mission enterprises as well. We also have treatment-rooms.

The thing that has most impressed me has been the various cases that are helped by these principles. A few weeks ago a man came into our sanitarium who had tried the Keeley cure, the cocain cure, and several other cures for relief from the morphin habit. He wanted to know



DR. E. COLLORAN

what cure we had at the Iowa Sanitarium. I told him we had the Battle Creek Idea — the *nature* cure. We put him on a strict vegetarian diet and applied only natural remedies. The real thing is the coming in contact with nature. It is the privilege of each one of us to have a little sanitarium at home: open the windows wide, breathe deeply, eat natural food, exercise enough to get rid of the poisons, and do not be afraid to perspire by good, healthy exercise.

DR. J. E. HEALD, Peoria, Ill.: Six years ago I went to the Battle Creek Sanitarium, and now I am glad to say that out of that another one has grown up—the one at Peoria. We will be glad to welcome to the sanitarium at any time any of you who live in the vicinity of Peoria.



DR. J. E. HEALD

We are just about at the end of the list; I will not go over anything that has been said, but I will tell you something else. We are always forming habits, either good or bad. Let us analyze that little word—h-a-b-i-t. When I want to get rid of a bad habit, every particle of it must go; so we will get rid of the word. If we take away the *h*, we still have *a-bit* left. Take the *a*, and *bit* is left. Take away the *b*, and *it* is left yet. Take away the *i*, and we still have *t* left. But we are not full-fledged health reformers until we leave out the tea. Coffee, tobacco, wine, whisky, have been spoken of, but I don't believe a word has been said about tea. You must get rid of the tea before the whole reform is complete. Let us set our aim high and be reformers in every sense of the word.

HERBERT OSSIG, Berlin, Germany: Nobody is so much surprised at the effects of a natural, simple life as I am. For over ten years I was an invalid from heart and kidney disease. The doctors in Germany could do nothing for me. Three years ago I got tuberculosis of the lungs. Now I can run for twenty miles, without stopping, in 190 minutes, and I can run one mile in five and one-half minutes when I am barefooted. This only shows wha-

fresh air, exercise, a vegetarian diet, water treatment, a chaste life, and right thinking will do. Now I feel like singing all day long,—

“There's sunshine in my soul to-day,
More glorious and bright
Than shines in any earthly sky,
For Jesus is my light.”

Battle Creek Sanitarium Ideas in a Great Factory

DR. B. N. COLVER: Since its establishment forty years ago, hundreds of physicians and nurses have gone forth from the Battle Creek Sanitarium teaching the world and establishing similar institutions in all lands. To this great original, the Sanitarium Factory, I bring greetings from the first of a new species, the Factory Sanitarium.

The National Cash Register Company, of Dayton, Ohio, has for years been an advocate of factory welfare work,—educational, co-operative, humanitarian. The first connection between the National Cash Register Company and the Sanitarium was in 1901, when Mr. J. H. Patterson, the President, visited Battle Creek. He was interested, pleased, converted to Sanitarium methods. Physical soundness is as desirable in the workman as is mechanical perfection in the machine. As the result of Mr. Patterson's visit he put one of the Sanitarium nurses into the factory. During the past eighteen months classes in simple treatments, physiology, and cooking have been held for the girls.



DR. B. N. COLVER

During the past year the Company invited Dr. Paulson and Dr. Otis to

visit the factory and address the employees. The interest aroused resulted in two cooks being sent from the factory to the Sanitarium. These cooks have made the successful trial of the vegetarian diet a possibility.

At the present time we have classes in simple treatments, physiology, first-aid and accident work. During the fall and winter, a stereopticon lecture will

be given every week on general health, dietetics, and preventive medicine. Since my locating at the factory in July, a complete set of treatment-rooms has been planned and these are now being fitted up.

(Dr. Colver's lecture was illustrated with a large number of stereopticon views, giving an idea of the factory hygiene.)

The Corset Evil.

A writer in the *Nineteenth Century*, in an article entitled "The Curse of Corsets," says:—

At the present moment the use of corsets is more universal than it has ever been.

The extravagance of modern dress — an extravagance never before reached — is evidence enough, were evidence needed, of this. Dress has been given to woman to conceal her deficiencies, and to this end she employs it, beauty and dress assuming generally an inverse ratio the one to the other.

Formerly the practice of tight lacing was confined almost entirely to the fashionable and leisured classes. Now it permeates the humblest levels of society.

You shall not find a housemaid, or kitchen maid, a shop girl, or a little slave of all work, who does not pinch her waist to a morbid and ridiculous extent. The thing has become, indeed, a national evil, for these wasp-waisted, chlorotic beings are the mothers of the race.

That the stays are indeed tight is shown by the fact that, although the physique and internal organs expand in every other direction, the waist of an adult woman is actually less than that of a girl between ten and twelve.

Moreover, it has been found that the

waists of young women released from the abnormal bondage of corsets, described as "not the least bit tight," expand in the course of a few months to the extent of three to seven inches.

The average woman, clothed as fashion clothes her, presents, I confess, an exterior pleasing to our artificial and acquired tastes. Unclothed — alas! she is that to make the physiologist and the artist weep!

Relishes Create False Appetite.

There is absolutely no food value in mustard, pepper, ginger, capsicum, and such things, and some of them, spiced pickles, for instance, are indigestible as sawdust. But these things, people say, have a relish. Those who have a good, healthy appetite do not feel the need of anything of that sort for a relish. A relish is something which creates a false demand for food. It enables us to eat when we really have no appetite. Appetite is an evidence of gastric juice with which to digest food. Lack of appetite is an evidence that one is not in a condition to digest food. But a relish produces a false impression resembling appetite, making one think that he is ready for food when he is not. It is therefore a deceiver, to be especially avoided by those who have no appetite.

A MEETING OF EXTREMES

BY E. E. ADAMS



AS a forlorn hope I have become a victim of the 'cramming method' which is the latest fad in England for the treatment of various kinds of disease. The enclosed newspaper cutting, describing the fattening of chickens by this method, will give you a faint idea of my sufferings. I can assure you that I have a fellow-feeling for these poor creatures since trying to force from six to eight meals a day down my unwilling throat. At first I seemed to gain a little, but now the very sight of food has become sickening, and I feel as if I were being stuffed into helpless idiocy.

"If you could see what a scarecrow I remain in spite of it all, you would not be so eager to travel in my company. To save you this infliction I will engage a nurse for the journey, and join you in Denmark a week after your arrival. I have not, however, much hope of recovery, in spite of your enthusiasm."

So ran the letter I received from an invalid friend suffering from failure of the digestive organs, resulting in extreme emaciation. The newspaper cutting referred to read as follows:—

"STUFFING CHICKENS

"... The fowls here are not only artificially hatched, but are artificially fed, so that their life from the cradle (incubator) to the grave (the stomach

of some epicure) is unnatural. As soon as their skeletons have developed to a size sufficient to warrant the farmer in proceeding to use them as frames for the support of fat, they are placed in a dark room around which are rows of small boxes, each one just large enough to hold one fowl, with a little



A DANISH HEALTH RETREAT

allowance for growth, but not for turning round. The front of the box is made of slats, between which the fowls can put their heads to reach the food which is kept constantly in front of them. For a while they live the lives of gourmands, but soon the abundance of delicacies palls upon them, and they begin to manifest indifference to food. Their watchful host, however, will not suffer them to go unfed. In the middle of the room is a large upright cylinder filled with soft food of a very fattening nature, and fitted with a flexible tube—a stomach tube. Taking the fowl under his arm, the man puts the tube down its throat into its crop, and with a lever worked by his foot begins to pump the chicken full. When the man's hand on the chicken's

crop tells him that it can hold no more, the creature is put back into its cell, to remain there in quietness and obscurity until its crop is nearly empty, when the operation is repeated. Two or three weeks of this treatment result in such a state of fatty degeneration of all its organs and muscles that the fowl can not stand up, and produce the delicate, white meat which, with all of its corruption, is so much prized by epicures."

Anxious to persuade my friend to accompany me to a delightful health retreat on the coast of Denmark, a branch of the famous Battle Creek Sanitarium, I had written her a very enthusiastic letter, describing the methods of treatment, and recounting several



A FOREST LAKE

cases, similar to hers, which had made a complete recovery in a short time. The answer, from which the above is quoted, reached me just before embarking from England.

On going on shipboard rather late in the evening, I found that the fellow-passenger in my stateroom had already retired for the night. Careful not to disturb her, I undressed quickly and quietly, and was soon sound asleep.

My slumbers were rudely disturbed by sundry prods in the back with some pointed instrument, and springing from my berth in alarm, I discovered that my companion was awake and endeavoring

with her umbrella to persuade me to close the door, which had been fastened open for ventilation, as the draft was giving her cramps in her feet.

Just as I was dozing comfortably off again, the same process was repeated, and this time the request was for a glass of water. On one pretext and another I was kept up and down nearly all night; and taking it for granted that my fellow-passenger was a helpless invalid, I waited on her with a good deal of solicitude.

Imagine my indignation and disgust when she explained matters by saying, with a glance of envy at my slender proportions, "You see, my dear, I am so stout that it is an exertion for me even to turn over in bed, but it must be a pleasure for you to move about;" and she continued to issue her orders as if the sole use for the able-bodied was to wait on those who had incapacitated themselves for action by assuming a load of superfluous adipose tissue.

Her explanation acted as a soporific, and my slumber became so sound that even the umbrella failed to awaken me. However, the puffing and panting and evident distress that accompanied the exertions of my new acquaintance, soon changed my indignation to pity, and made me willing to give her all the assistance in my power.

"Why don't you reduce your weight if it is such a burden?" I asked. "That can easily be done by diet and exercise;" and being just then full of sanitarium ideas, I proceeded to expatiate, as I had to my invalid friend, on the benefits of health culture, dwelling in this instance on the opposite side of the problem—the reduction to

graceful and athletic proportions by means of baths, diet, and exercise.

"Ah," sighed the lady, "it is easy for you thin

people to talk about exercise. And as to diet, the only things that I care for are the very things that are always forbidden. I am very fond of fats and sweets, so I fear that in my case the tendency to fleshiness can not be overcome," and her sigh of resignation showed that the idea of overcoming her tendency to eat fats and sweets had never occurred to her.

Working along the line of least resistance, in order not to arouse her antagonism, I answered: "Some time ago I heard a lecture by Mr. Horace Fletcher, who stated that without exercising any self-denial, and being always particular to eat as much as he wanted of whatever he wanted, he had in a few months reduced his weight by about fifty pounds."

This aroused her interest: if she could get rid of the same amount without any exertion or self-denial, she would gladly let it go.

I then explained to her the method called "Fletcherizing," which doubles the satisfaction and enjoyment of the meal, and educates the appetite to select just the kind of food needed by the system, and the exact quantity required. Her deepening interest made me think that perhaps after all there was some hope for her, and led me to give her some particulars of the Danish health retreat whither I was bound on my friend's account. Here, I told her, she could learn all about this method, and practice it under the best conditions, while at the same time undergoing treatment that would help to relieve



TO THE SEA BATH

her of her load.

The eagerness with which she jumped at the idea was somewhat disconcerting, since nothing would do

but she must proceed with me at once in the hope that she might drop her burden of flesh and go lightly on her continental trip.

After a somewhat trying journey we reached our destination. My new friend, Mrs. Magee, was charmed with the place, and would have liked nothing better than to sit all day comparing notes with other dowagers of like proportions. But since she could not understand a word of Danish, this was quite out of the question, and she was obliged to attach herself to me, that I might act as interpreter. At breakfast the first morning, Mrs. Magee evinced considerable surprise at finding herself opposite a lank individual with a very "lean and hungry look."

"Really, my dear," she said to me in alarm, "I feel a little afraid of this treatment, if it makes people so thin as that. I don't want to run down so fast that I can't stop if I want to. I wonder he stays here so long; but perhaps he is afraid of gaining flesh again as soon as he stops treatment."

It was very evident to me that the gentleman in question was a nervous dyspeptic whose main object at the present time was to gain flesh. But the lady's remark was a revelation and an inspiration. It had not occurred to me to explain that the institution was established for the scientific treatment of all kinds of disease. It now dawned on me that I had innocently given her the impression that the place existed solely for the treatment of the obese, and that she was under the blissful

delusion that all the gaunt specimens of humanity that she saw about had come there as ungainly as herself, and in order to eradicate the tendency to obesity they were willing to go to the other extreme for a time, and luxuriate in excessive thinness.

I had never been able to ascertain how far so-called "mind-cure" was effective in reducing flesh, and it occurred to me that this was an excellent opportunity for observation.

In spite of my assurances to the contrary, Mrs. Magee had had a lurking suspicion that she would find herself cut off from the delicacies dear to her heart, and she was immensely relieved to find the tables well spread, and every one partaking freely of whatever he desired.

She had already been instructed in the art of Fletcherizing, but I doubt if she would ever have been prevailed on to practice it had she not believed the skeletons she saw around her to be the result of it. As it was, she was inspired by them to a most unusual degree of masticatory activity. Every morsel was Fletcherized so assiduously that the satisfaction derived from the meal prevented her from observing that she had consumed but a fraction of the ordinary amount. Already she saw herself in imagination reduced to the graceful proportions of girlhood, and the unusual lightness of body and spirits when she arose from the table at the close of the meal added to the effect.

"There must be something remarkable about the air of this place," she said. "I feel as if I had lost a dozen pounds already," and she walked away with such unaccustomed sprightliness that I was convinced the cure had begun.

A word to the doctor, who spoke Eng-

lish perfectly, was sufficient to arouse his interest in the experiment, and secure his co-operation. Since Mrs. Magee had implicit faith in the methods that worked such wonders, she was willing to submit with unquestioning obedience to whatever was prescribed in the way of treatment.

"Anything except diet and exercise, Doctor. I must draw the line at those two things. I will do anything you say, but I must eat what I like; and it is, as you see, quite impossible for me to exercise."

"Certainly, madam, that is just what we want you to do," said the doctor. "Be sure to eat only what your appetite calls for. But in order to get the full measure of enjoyment from every mouthful, be sure to masticate it until there is no taste left."

This was so alluring a prospect that Mrs. Magee, who had the soul of an epicure, found her mouth already watering and her mind running on certain choice dishes to be thoroughly discussed at the next meal. "As to exercise," continued the doctor, "you must not attempt it at present. If you have ever learned to swim —"

"Oh, yes," interrupted the lady, "in my youth I was an expert swimmer. But —" and an expressive glance at her unwieldy form, and a shrug of the broad shoulders, conveyed the idea that it was now quite out of the question.

"I was going to say," said the doctor, "that one of the most delightful ways of resting, this intensely hot weather, is to float in the sea for as long as one feels disposed. Only be sure not to exert yourself."

Following the doctor's lead, I invited Mrs. Magee to a seat out at the end of the pier near the bath-house, where we could watch the merry crew disporting themselves in the sea. The water did

look delightfully cool and inviting as we sat in the sweltering sun. It was not long before we both began to long for a dip.

"I am going for a swim," I said, "and you can rest meanwhile in the sea's cool embrace."

Why is it that one can not be dull and heavy, or even sedate and serious, in the water? What is there about it that brings out all the latent sportive elements of one's nature?

As soon as Mrs. Magee touched the water she was another woman, with a brightness and vivacity suggestive of what she might be if only one hundred pounds avoirdupois could be lifted from her body and spirits. She was soon splashing and sporting like a young hippopotamus. All my injunctions to remember the doctor's orders only served to

stimulate her to further feats. She soon proved that she was still an excellent swimmer, though she had long ago settled down to the conviction

that all kinds of exercise were impossible for her, and so had waxed fatter and fatter. But to take to the water as a part of her rest prescription was another matter.

The cold water and exercise stimulated Mrs. Magee to such an unusual degree of exhilaration that on completing her toilet after the bath, she said, "It seems so much cooler now. Do you think the doctor would object to my taking a little walk?"

"Not if you don't exert yourself," I answered. "We will find a shady seat in the forest, and sit there a while."

Under pretense of looking for a comfortable seat, I led the unsuspecting lady up and down long paths which I knew to be innocent of seats of any description. Since sitting on the ground was quite out of the question for her, she was



A FOREST WALK

obliged to walk on until she was perspiring profusely, and at her last gasp, when I mercifully discovered a seat.

(To be concluded.)

"PLUCK wins; it always wins, though days
be slow,
And nights be dark 'twixt days that come
and go,—
Still Pluck shall win — its average is sure;
He wins the most who can the most endure;
Who faces evils, he who never shirks,
Who waits and watches, and who always
works."

NEW YEAR'S COURSE DINNER

BY MRS. S. J. LASHIER

.. VEGETARIAN MENU ..

	SOUPS	
Mock Turtle Soup		Cream of Peanut
	RELISHES	
	Banana and Nut Salad with Walnut Dressing	
Ripe Olives		Fresh Celery
	ENTREES	
Cannelon of Protose, Brown Gravy		Pease Croquettes
	VEGETABLES	
Browned Sweet Potatoes		Stewed Sugar Corn
Baked Carrots		Savory Lentils with Tomato Sauce
	BREADS	
Whole-wheat Bread	Zwieback	Cream Rolls
	DESSERTS	
	Cocoanut-Cream Pie, Granola Crust	
	Gateau de Pommes	
	FRUITS	
Baked Pears		Stewed French Prunes
Oranges		Apples
	BEVERAGES	
Caramel Cereal Coffee		Fruit Nectar
	EXTRAS	
Date Dainties		Mixed Nuts and Raisins

Recipes

Mock Turtle Soup.—Cut fine one-fourth pound of protose, one-fourth pound of nuttolene, and one onion; cook in one quart of water for one hour. Add one quart of rich liquor from lentils or Scotch peas; one pint strained tomatoes; two-thirds cup of chopped mushrooms. Cook one-half hour, then add salt to taste, juice of one-half lemon, and yolks of two hard-boiled eggs, minced fine. Thicken if necessary with a little browned flour.

Cream of Peanut Soup.—One cupful ground peanuts; one-half teaspoonful celery salt; one small onion cut fine; one pint cooked tomatoes. Cook slowly and long. When done rub through a

colander, and add three pints of rich milk or part milk and part cream. Let come to a boil and serve at once

Banana and Nut Salad.—Peel three bananas and slice thin; add one-half cupful broken (not chopped) walnut meats. Pour over this two-thirds cup of the dressing and mix well. Serve on platters garnished with lettuce leaves.

Walnut Dressing.—Rub two rounded tablespoonfuls each of walnut meal and sugar with half a cup of water. Boil five minutes. Add two well-beaten eggs, juice of one lemon, and a pinch of salt. Boil until the consistency of thick cream.

Cannelon of Protose.—Moisten one-half pound zwieback with one quart brown gravy; add three eggs, one grated onion, and a little parsley. Mix well, then add one pound protose previously cut into half-inch cubes, and stir just enough to mix all well.

Make crust as for pie, roll thin, cut in oblong pieces, put a spoonful of mixture on each, pinch the edges together well so as not to allow any to escape. Put in a baking pan and bake to a good brown. Serve with brown gravy.

Brown Gravy.—To four tablespoonfuls of brown onion flavor add two-thirds cup of flour and stir well for a few minutes. Add gradually (stirring continually) two cups of hot water and one cup of tomatoes. Cook a few minutes and rub through a colander. Salt to taste.

Pease Croquettes.—Boil until thoroughly done two cupfuls of Scotch peas. Rub through a colander and add two well-beaten eggs, a little minced parsley, a small grated onion, salt to taste, and dry bread-crumbs enough to make quite stiff. Form into croquettes, roll in beaten eggs and bread-crumbs, and bake in the oven about ten minutes.

A cupful of chopped walnuts will improve the croquettes.

Browned Sweet Potatoes.—Boil medium-sized sweet potatoes until pretty well done. Peel, halve, and place in an oiled dripping pan. Sprinkle lightly with sugar and oil and brown in a quick oven.

Savory Lentils.—Cook two cupfuls of lentils until well done. Rub through a colander and add salt and sage to taste.

To serve, heap in the center of the dish and pour tomato sauce around it.

Tomato Sauce.—One quart strained tomatoes, one tablespoonful nut butter, one grated onion. Mix well and boil five minutes. Thicken with cornstarch to the consistency of thick cream. Salt to taste.

Baked Carrots.—Boil medium-sized carrots in salted water until thoroughly done. Scrape and slice in half-inch slices lengthwise. Dip in beaten egg and fine bread-crumbs. Place in an oiled dripping pan and bake until well browned.

Cocoanut-Cream Pie (2 pies).—First prepare the crust by soaking one cup of granola in two cups of sweet milk; arrange in pie tins and bake in a hot oven five minutes; it will then be ready for the filling.

Heat to the boiling point one pint of sweet milk; beat into this the following mixture: Two tablespoonfuls of cornstarch mixed well with the yolks of four eggs, one cup sugar, and a pinch of salt. After this has been added to the milk, boil until the cornstarch is thoroughly cooked; then add two-thirds cup shredded cocoanut, a few drops of lemon juice, and pour into the prepared crust. Beat stiff the whites of four eggs and add one-third cup sugar, one-half cup shredded cocoanut, and a little lemon juice. Cover the pies with this and brown in a quick oven.

Gateau de Pommes.—Pare and core six large tart apples; add one pint of water, three cups of sugar, juice of one lemon and the peel grated; boil briskly for half an hour, then thicken to the consistency of jelly with a little cornstarch. When cold serve with the following custard:—

Mix with four well-beaten eggs one and one-half cups sugar, one tablespoonful cornstarch, and a little lemon

juice. Beat this into one pint boiling milk. Set the dish into a pan of boiling water and cook ten minutes, stirring continually.

Fruit Nectar.— Take Concord grapes or any kind of berries and put into a stew pan with a small amount of water; boil ten minutes, stirring occasionally. Strain first through a sieve and then through a cheese-cloth. Add one-third

sugar to two-thirds juice and boil briskly for fifteen minutes. Put in bottles and seal. When used add either hot or cold water, to suit the taste.

Date Dainties.— Wash and steam for about ten minutes some choice dates. Split one side, remove the seed, putting in its place one-fourth of a walnut meat; press together and roll in powdered sugar.

Protection for the Babies.

The human mother seems to be the only mother that does not know how to take care of the offspring that she brings into the world. Physicians frequently complain that ignorant or careless parents kill their infants by giving them solid food. A contemporary cites the case of a mother who exclaimed, at the death of her year-old baby, "I don't know why she should have died. She was perfectly well this morning. Why, she ate three fried eggs!" The French government has passed a law to protect the babies from their natural protectors, forbidding any one, parents or others, to give solid food of any kind to a child under one year of age. For any violation of this law, the charge will be, "Guilty of attempt to kill."

Don't Make a Garbage Box of the Stomach.

The majority of people never stop to think that the stomach is anything more than a receptacle for things that have been chewed. They get hold of something that tastes good, and swallow it into the stomach to get it out of the way, so there will be room for something more. That might be all right if the stomach were a garbage box that could be carried off and emptied; but

nature intends the stomach for another purpose. We are constructed of what we eat. We should stop to think of that. We should be careful what we swallow, for it becomes our brain, heart, limbs, blood; and if we are to have good blood, clear brains, sound minds, sturdy legs, and strong arms, we must eat food that is capable of making that sort of tissue.

Rice versus Beefsteak.

Rice is one of the most nourishing of foods. It is eighty-five per cent nutriment compared with twenty-eight per cent nutriment in beefsteak. A pound of rice contains three times as much nourishment as a pound of beefsteak. Rice requires but one hour for digestion; beefsteak requires three and one-half hours. It takes three times the digestive power to assimilate beef, and it has only one-third the nutriment as compared with rice. So beefsteak has only one-ninth the nutritive value of rice.

THE penalty of public life which is hardest to be borne, is to have attributed to a public man sentiments which he never uttered, thoughts which he never entertained, language which he is incapable of delivering. Yet this is the common experience of the day.—*Chas. A. Sumner.*

Chautauqua School of Health

SKIN TRAINING

BY J. H. KELLOGG, M. D.

AN enormous amount of time is devoted to the training of the hand, the eye, and the brain, but the training of the skin is seldom thought of. Nevertheless, a well-trained skin is more essential to health than almost any other kind of bodily culture. The neglect of the skin must be regarded as the foundation cause of a large number of chronic maladies. It may almost be asserted that a man who will keep his skin in a thoroughly healthy condition may defy almost any known disease. The experienced horseman knows very well the importance of attending to the skin of the animal under his care. A horse which has a hidebound skin, with the hair dry and rough, is by this fact alone known to be in a state of disease. A man whose skin is hidebound, with the hair dry and dingy, dull and lifeless, in appearance, shows by this fact that his whole body is in a state of disease.

A healthy skin is warm, slightly moist, smooth, reddens quickly when rubbed or exposed to the action of hot or cold water, is supple and elastic, perspires readily under exercise or the application of heat, and is free from pimples, eruptions, and discolorations.

To maintain this condition, the skin must be subjected to daily bathing and grooming. Horsemen rub and groom their charges daily. Wild and domestic animals left free in the field habitually

groom themselves by vigorous rubbing against trees or other objects. Hunters are familiar with this fact, and often secrete themselves near a "rubbing tree," as a means of getting an easy shot at their game. Man, of all animals, neglects to groom himself, and this is especially true of civilized man; for, as is well known, the savage and half-civilized nations from time immemorial have practiced rubbing of the body as a means of maintaining health.

A daily bath should be taken regularly on rising. The temperature of the water should be cold, or at least cool, so that a strong reaction may be produced. The application should be brief, not more than half a minute to one or two minutes at the longest, and should be followed by quick drying and vigorous rubbing with the towel. The lower the temperature of the water, the shorter should be the duration of the bath. The purpose of the morning bath is not cleanliness, although it aids in keeping the skin clean, but is skin gymnastics or training. When very cold water is applied to the skin, there is a sudden contraction of the blood vessels. This is quickly followed, after the application, especially when the skin is thoroughly rubbed, by a dilatation of the vessels of the skin, which causes reddening of the surface and a feeling of warmth,

though the skin may still be cool, and a general sensation of buoyancy, exhilaration, and vigor.

This sort of bath is a real exercise or vasomotor gymnastics for the skin. When taken daily, the nerves and vessels of the skin are maintained in so healthy and vigorous a state that they are able quickly to react when exposed to the cold, thus avoiding the injurious effects which follow slight exposure, and in most persons give rise to what is commonly known as "a cold," a condition which not infrequently serves as an introduction to pneumonia, consumption, chronic catarrh of the nose, throat, or chest, rheumatism, and various other maladies. Persons who practice daily cold bathing are little subject to colds.

The idea that the daily bath is debilitating and injurious, and especially that cold baths are weakening and dangerous and lead to consumption, etc., is entirely an error. It is only the abuse of the bath that is to be condemned. A short cold bath taken in a warm room, followed by vigorous rubbing and exercise until a good circulation is established, has never been known to injure any person; but care must be taken to secure prompt and thorough reaction. If the hands and feet continue cold for some time, or the head aches, the bath should be

shorter, the rubbing more vigorous, or perhaps the exercise should be continued for a longer time. By degrees the ability to react improves, so that colder water and longer applications may be advantageously employed.

The benefits of the cold bath are not experienced in the skin alone; the whole body shares in the reaction. The contact of the cold water with the skin arouses the brain and the spinal cord, the heart, lungs, liver, and every internal organ to renewed activity. The heart pumps with renewed vigor, blood is forced into every nook and corner of the system, the sluggish brain is aroused, the slow stomach is awakened to action, its glands are stimulated to produce gastric juice, a craving for food follows, and with the improved appetite comes improved digestion. The whole body is excited to increased activity. With the dilatation of the surface vessels and the filling of the skin with blood, the congested brain and other organs which have been overfilled with blood are relieved; their burdens are lightened, and the wheels of life run more swiftly and with lessened friction. The cold morning bath is the most powerful of all tonics known, and its daily employment is a duty which every civilized being owes to himself.

ATTITUDE IN MANUAL OCCUPATIONS: ITS EFFECT ON HEALTH

BY J. F. MORSE, M. D.

A GREAT majority of people obtain their livelihood in the ranks of manual laborers. A still larger percentage of those not thus employed do more or less of manual work every day, either

for profit or for pleasure. When we consider that possibly only one person in a thousand or more is in the habit of going to a gymnasium for symmetrical development, the true influence of the

daily task upon health is apparent.

One asks involuntarily, "How can my daily task become my physical culture?" Correct position is one of the most important questions to be considered. No argument is needed to convince a mechanical or an electrical engineer that a piece of machinery will not run smoothly if its working parts are misshapen or cramped for room.

One of the marvels of the living machine is its ability to adapt itself to various and changeable conditions. It may often do apparently faultless work when the machine is being permanently injured—deformed for life. These injuries are known as occupation-deformities when occurring constantly in any one line of work.

The correct standing position may be taken by standing against the wall with the heels, the hips, and the head touching the wall. Now look directly



Fig. 2

up at the ceiling. Next draw the chin downward and inward by looking directly in front. You are now standing nicely balanced on the balls of the feet, and have the position of the body which should be maintained, with slight modifications, in all positions when on

the feet. The relations of the different parts of the body to one another may vary widely, but each part should be allowed to maintain its own normal extent and outline in the different positions.

In bending the body, the movement



Fig. 1

should be principally at the hips. Joints were made so one might bend without injury. The accompanying illustrations, from photographs of every-day employments, show incorrect attitudes which may be observed almost universally in people at work. Figure 1 gives the usual position when shoveling, and illustrates the harmful attitude generally taken when doing work that requires bending of the body. The full expansion of the chest is prevented by throwing the shoulders forward and bending the upper part of the spine. The abdominal muscles can not do their work of assisting in breathing. The pressure in the abdomen is increased, thus hindering the return of the blood from the lower extremities to the heart. The lack of full chest expansion means that some of the little air passages which should be constantly ventilated and purified by the current

of air in and out are not opened. Poisonous gases are retained in the lung tissue, and these lower the vitality of the little cells. If a tubercular germ happens to be there, it finds a favorable place in which to live, multiply, and produce its poisons. When

used would be unaccustomed to the new attitudes; but if one persists in maintaining the correct position, the work can be done much more easily.

Figure 3 represents the same general conditions, except that the position is a little more complicated and difficult.



FIG. 3



FIG. 4

fresh air is lacking, the whole body is starved for the most important food known,—oxygen.

The obstruction to the return of the blood from the lower limbs means weakening of the walls of the veins, one of the causes of varicose veins. Figure 2 shows the position corrected. The movement is principally at the large joints, the hips and the knees. The chest is expanded as fully as possible, and the abdominal muscles are left unhindered to do their work in respiration.

To one who has never tried to do this kind of work in the proper position, the greater ease of accomplishing it would be a revelation. It might not be easier the first time it was tried, because the muscles which would be

The injury done to the body by constantly taking an incorrect position in wood-sawing is likely to prove greater than from shoveling.

In Figure 4 the position is corrected, and the body has the best opportunity for doing its work easily and profitably.

Without a sufficient amount of exercise it is impossible for the body to be in a perfectly healthy condition. Professor Huxley recognizes this fact in the following definition of a liberal education:—

“That man has a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold logic engine, with all its parts of

equal strength and in smooth working order, ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with a knowledge of the great and fundamental truths of nature and the laws of her operation; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to

come to a halt by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of nature or of art, to hate all vileness, and to respect others as himself. Such a one and no other has had a liberal education."

One must respect the rights of every part of his own body before he can properly relate himself to God or to man.

THE FOOT BATH

THIS simple application of water is one available in every home, and in its various modifications constitutes a most serviceable means of treatment.

The requisites are a suitable receptacle for the feet and a supply of water of the proper temperature.

The sole of the foot is one of the most important vasomotor areas of the body, having very direct connection with the nerve centers which control the circulation of the pelvic and abdominal viscera.

The hot foot bath should begin at a temperature of 102° to 104° , and should be gradually increased until by the end of two or three minutes a maximum temperature of 115° to 122° is reached. The duration may be from five minutes to half an hour. The feet should be completely immersed in the water; the effect may be intensified by increasing the depth of the water. After the very hot foot bath, the feet should receive a dash of cold water—affusion, jet, or spray—to produce the true tonic circulatory reaction.

This bath is more commonly used, perhaps, than any other as a derivative measure. At a temperature of 103° to 110° , the hot foot bath is an exceedingly useful means of balancing the circulation, by the dilatation of the

blood vessels of the legs, relieving congestion of the brain and other organs in the upper half of the body.

Very hot (115° to 125°) to the feet stimulates the involuntary muscles of the abdominal viscera.

The very hot foot bath is exceedingly useful in cases of sprain of the ankle joint; also in neuralgia of the foot, and in gout. The application should be made two or three times daily, and continued twenty to thirty minutes each time.

The hot foot bath is also of very great service as a means of relieving or preventing a cold resulting from accidental chilling of the feet, if applied soon after exposure.

The cold foot bath (45° to 55° , one to five minutes), though less useful than the hot foot bath, is of great service in producing reflex, revulsive, and other effects.

For this bath the water at proper temperature should be of a depth of three or four inches. The feet, previously warmed, are immersed in the water for one to five minutes, friction being continuously applied to the feet during the bath, either by the hands of the attendant or by the patient's rubbing one foot against the other in alternation.

The shallow foot bath is a variety of the cold foot bath in which the amount of water employed is small, barely sufficient to cover the toes. After being held in the bath for one-half minute, one foot is taken out and rubbed for half a minute and returned; then the other is treated in like manner, this being continued until the whole surface is well reddened with strong circulatory reaction. Lastly, the feet are wiped dry and thoroughly rubbed with the dry hand. The soles are vigorously percussed. The water should be very cold, or at a temperature of 45° to 55° . The shallow foot bath gives rise to powerful reflex effects upon the pelvic viscera, causing contraction of the vessels, and thus relieving uterine congestion. The intestines and even the brain are also influenced.



THE COLD FOOT BATH

The shallow foot bath produces powerful reaction effects to the feet, and is thus of great service in chronic cases of cold and sweating feet. Its applications are the same as those of the ordinary cold foot bath, only differing in being somewhat more intense.

In the employment of the alternate foot bath, the feet are placed in hot water for two or three minutes, then in cold water for twenty seconds to one minute. They are then returned to the hot water for two minutes, then replaced in the cold water, this operation being repeated a number of times. The alternate foot bath is a more highly excitant measure than the cold foot bath. It is especially useful in chilblains, in local asphyxia, in habitual coldness of the feet, and for sweating feet.

J. H. K.

CHAUTAUQUA HEALTH WORK

BY DAVID PAULSON, M. D.

THE Chautauqua institution has gradually developed into a novel and unique movement. It is, in fact, the ordinary citizen's summer university. At the fashionable watering-places the wealthy, by trying to live on indigestible hotel cookery, are keeping the roses from coming into their pale cheeks, while their less fortunate (?) neighbors have gathered in a quiet and beautiful spot by the side of some lovely lake or river, sleeping at night in tents, spending a portion of each day in an open

auditorium, and are not only entertained and instructed, but come into wholesome contact with nature.

The bondage of ordinary conventionality is to a large extent left behind with the perplexities and cares of modern artificial life. Boating, walking, and other forms of physical diversion constitute a portion of the day's program.

From the very nature of the thing, it is not surprising that in recent years the Battle Creek idea should have received gratifying attention in some of the lead-

ing Chautauquas. During the past summer Mrs. Ward, instructor in cookery at the Battle Creek Sanitarium, Mrs. Paulson, and the writer taught the people the glorious gospel of health in the Piasa, Old Salem, Pontiac, and Rockford Chautauquas.

The Piasa Chautauqua was held in a beautiful valley between two picturesque cliffs overlooking the "Father of Waters." A refreshing spring bubbles forth under the magnificent shade-trees. It would be difficult to find a more inviting spot than this for the weary and worn to come and spend a little time in the heat of the summer.

At ten o'clock each morning Mrs. Paulson gave instruction on home treatment for the sick. At eleven each day the writer gave a lecture in the main auditorium on the various phases of the health question. Mrs. Ward conducted a cooking-school each afternoon with a large and enthusiastic class. Even the children came in with their pencils and paper, and crowded to the front seats to take notes.

At the Pontiac Chautauqua the presentation of health principles met an especially enthusiastic reception. Several hundred ladies availed themselves of the afternoon cooking lessons.

The Old Salem Chautauqua is held near the place where Lincoln once kept store. The log cabin in which he lived for a time is now being used for a pig-pen, — a striking



THE OLD SALEM CHAUTAUQUA IS LOCATED ON THE BANKS OF THE SILVERY SANGAMON

evidence that we have not as yet become a nation of hero worshipers. At this splendid Chautauqua, probably the second largest in this country, twenty-two different schools were maintained in addition to the regular program. Here we gave health instruction for ten days, and never has it been our privilege to meet a more earnest and appreciative class of people.

The Rockford Assembly meets on the banks of the beautiful Rock River. From a thousand to fifteen hundred people attend the lectures each day. They came before the beginning of the hour, so as to have an opportunity to ask questions, and remained afterward for additional information. Part of the time more than four hundred



A RUSTIC CORNER ON THE OLD SALEM CHAUTAUQUA GROUNDS

ladies availed themselves of Mrs. Ward's very excellent and practical lessons in hygienic cookery.

What a blessed privilege it is to lay aside for a time the trying and perplexing duties of a physician and go out and instruct the people how to keep well. If a doctor could go out into a graveyard and raise a man from the dead, the next day his name would be known

in two continents. Is it not, however, far better to teach the people how to *avoid* funerals. Those who love humanity and who earnestly desire to save it from its sufferings and pain, can do this most effectually by availing themselves of every opportunity to present the gospel of health at summer gatherings and various clubs, organizations, and conventions.



THE ROCKFORD CHAUTAUQUA, LOCATED ON THE BANKS OF THE BEAUTIFUL ROCK RIVER

SCHOOL OF HEALTH SEARCH QUESTIONS

SKIN TRAINING

1. Of what is an unhealthy skin an indication?
2. Describe the condition of a healthy skin.
3. How may this condition best be maintained?
4. What is the effect of skin gymnastics on the organs of the body?

THE FOOT BATH

1. What important nerve centers are connected with the sole of the foot?
2. Describe the effects of the hot foot bath.
3. For what purposes is the cold foot bath useful?
4. What reflex effects are obtained by the shallow foot bath?

ATTITUDE IN MANUAL OCCUPATIONS

1. Describe a good way to secure the correct standing position?
2. In bending, where should the movement of the body be?
3. Give some of the ill effects of incorrect attitudes when doing work that requires bending.

A RECIPE FOR A LONG LIFE



IN spite of the oft-repeated question, "Is life worth living?" nearly everybody is looking for a recipe for longevity, and it is as true to-day as in the days of the patriarch of Uz, that "all that a man hath will he give for his life." Those especially who have passed the meridian of life have an intensified interest in the things calculated to prolong life.

The recipe for long life given by Dr. Robert Collyer after completing his eightieth year is therefore of wide popular interest. The prescription is so simple and natural that it can be followed by men and women of all ranks and callings: "Live a natural life, eat what you want, and walk on the sunny side of the street." Concerning this simple recipe a writer in *What To Eat* comments as follows:—

"Living a natural life, of course, means a conformity with the laws of nature. A man can not eat or drink things that destroy the body or impair the vital forces and live a natural life. He can not violate the laws of hygiene or ignore sanitary laws and live a natural life. He can not eat things that have no nutriment in them, he can not deprive himself of the oxygen that is stored in the outdoor air, and live a natural life. 'Eat what you want,'—not what you wish,—says Dr. Collyer. The meaning of this is plain. Eat what the body needs to build it up and fit it for the requirements of your work, not what a perverted or unnatural appetite may crave. And then, 'walk on the sunny side of the street.' This has more

than figurative meaning. It means in the first place that it is an actual physiological fact that it is better for every person to get on the sunny side of the street, even if he has to go out of his way, whenever there is a sunny side, because the sunshine is nature's great rejuvenator, purifier, and builder. If a man could always be in the sunshine with uncovered head, there would be no baldheads. No hair would fall out, and no disease come to a scalp constantly exposed to the sun. Ninety per cent of man's ailments may be traced to the fact that he is so persistently an indoor animal. The man who lays gas-mains in front of your house, and whose work is out of doors winter and summer, has no need of hair tonics, or any other kind of tonics. He comes very near to living a natural life.

"But the injunction of Dr. Collyer to keep on the sunny side of the street has a much wider application in its figurative significance. If you would live long, keep in the sunshine, be sunny, cheerful, amiable, tranquil. Keep out of the deadly doldrums. There's no breeze for the sails of the human craft that drifts into the doldrums. No use to try to carry all the burdens and derelictions of frail and fallible humanity. Contribute to the extent of your ability to ameliorate the condition of the destitute and the oppressed. But don't be grumpy, sour, and glum. Keep out of the dark shadows. Nothing grows in them. Flowers do not flourish in the cellar. Keep in the sunshine, and if you do that, you can't help but be 'sunny'—and that means long life"

"LIKE a coy maiden, Ease, when courted most,
Farthest retires — an idol at whose shrine
Who oftenest sacrifice are favored least,"

Health Chats with Little Folks

A LITTLE SNOW MAIDEN

BY E. E. ADAMS

IPPAGEN is a little brown fur-clad maiden who lives far away in the frozen North, in the great Snow-land. You would not know that she is a little girl, for in her country the people all dress alike, and women and girls wear trousers like the men and boys. But her mother has across her shoulders a hood in which Ippagen lived very happily when she was a little baby. She is much warmer and more comfortable, more free to run and jump about, than she would be if she had to wear skirts, like a little American girl.

Ippagen's clothes are all made of the skins of animals. Foxes, seals, bears, reindeer, have to give up their warm coats to keep these little people warm. She wears a fur coat made like your sweater, that she pulls on over her head. Sewed to the top of this is a furry hood to keep her head and ears

warm. Her little pants, or *nannookies*, as she calls them, have sealskin boots sewed on to them. So when her coat is pulled down over the top of her pants, there are no places for the snow or wet or the cold wind to get in. She can roll about in the snow as safely as a little furry animal.

Besides these clothes that she puts on outside, Ippagen has a warm inner coat that she wears underneath her skin. It is made of blubber, the fat that lies next to the skin of seals and whales. It is so very, very cold where Ippagen lives that she has to eat a great deal of this fat, which is burned up slowly in her body to keep her warm. Some of it is stored up under her skin, and makes a warm winter blanket.

The fat of animals is a very bad food. But Ippagen can not get any nuts or olives or cream, or any of the nice fat-making foods that you have.



IPPAGEN

Nothing good to eat grows in her country, so she has never tasted anything but animal food. It would surprise you to see Ippagen eat her dinner. She takes a large piece of blubber, and puts one end of it in her mouth. Then she saws off a piece, holding the knife so close to her nose that you would expect to see that come off too. Even the little children do this; but as they have very blunt knives and very short noses, no harm is done.

But the most astonishing thing about Ippagen's dinner is that she eats it quite raw! Sometimes some of the meat is cooked, but usually blubber, meat, and fish are eaten raw. Because of this, Ippagen and her people are called "Eskimos," from an Indian word that means "eaters of raw flesh."

You will be shocked to hear that Ippagen has never had a bath. This is one reason why her skin is so brown, for when she was a tiny baby it was almost white. What a strange way she has of washing her face, just rubbing it over with a piece of fat or some oil. She certainly makes it shine, though it is not very clean. But the oil helps to protect her from the cold, and keeps her skin very soft and smooth.

In the summer-time Ippagen lives in a tent made of reindeer skin. She has a fine time playing out of doors, for the sun never sets, and it is daylight at midnight. Many bright flowers grow then, and the land is so green that it has been called "Greenland."

But when the winter comes, her father builds a snug snow house for his family. You think a snow house must be very cold? Just take a peep inside; but you will have to stoop low, for the doorway is only a hole cut in the wall, that Ippagen has to crawl through on her hands and knees. You would not

be able to see inside if it were not for the lamps, that are kept burning day and night.

There, you see, the people have scarcely any clothes on, yet they are so warm that the perspiration is running down their bodies. How many of them there are, and a lot of dogs besides, crowded into one small room. Do not go in, for you will hardly be able to breathe that dreadful air, though they do not seem to mind it. They keep the doorway blocked up so that no breath of cold air can come in, and there are no windows.

Think of breathing over and over again the breath of all those human beings and animals! Would you not think it a terrible thing if you had to eat food that had been chewed up in another person's mouth? Yet some people think nothing of taking into their lungs the breath that has been inside the bodies of other people and comes out again loaded with poison.

It is the pure fresh air that keeps our blood pure, and the inside of our bodies clean. Then what a dirty state these Eskimos must be in by the end of the winter, after so long breathing over and over, day after day, the same poisoned air.

Ippagen's people suffer because of their bad food, bad air, and dirty habits. So many of them die of consumption



that it seems as if there will soon not be any left. None of the men live to be old. They are dull and stupid, and can not learn much.

For four long months of winter, Ippagen does not see the sun at all. The moon and stars shine all day, and the houses are lighted with lamps. The Eskimos are used to this, but strangers who go to their land suffer, and get very pale and weak in this long, long night. Human beings, like plants, need much sunshine to keep them healthy and strong.

How happy Ippagen is when the sun comes back. Then she goes to the "sun feast," and sings and dances for joy with the rest of her people. One stands in the middle and beats a drum made of whalebone and a stretched whale's tongue. He leaps about and sings, and the rest form a ring round him and join in the chorus.

This is what they sing:—

"The welcome sun returns again;
Amna, ajah, ajah, ah-hu!
And brings us weather fine and fair;
Amna, ajah, ajah, ah-hu!"

THE SNOW-STORM

THE snowflakes scurry
In haste and hurry —
It's only a flurry —
But never mind!
For flake and feather
And frosty weather
Unto the children are very kind.
The lads and lasses

That naught harasses
Whatever passes,
Are out to-day!
Their cheeks are tingling,
Their voices mingling:
The snow is here—
Hooray! Hooray!

—Margaret Sangster.



.. *By the Editor* ..

THE SIMPLE LIFE A CURE FOR TUBERCULOSIS

THE best treatment for tuberculosis is a natural life. Live out of doors, rest in the sun, breathe all the cold air you can get, and take all the cold water you can stand. A Swedish doctor, some fourteen or fifteen years ago, succeeded, by a very crude method, in curing patients who had been given up to die. His practice was first of all to rub the patient three times a day with a towel wet in very cold water. A little later he put the patient in a tub of water at about 60°, rubbing him vigorously for about a minute, and later, as the patient became better able to endure the cold water, he was plunged into a tub full of ice water. This was done three times a day. Think of those poor consumptives! Nevertheless, they got well. The cold water, with the rubbing following, produced such a powerful reaction that the whole body was stimulated to increased vital activity, and recovery followed.

Live a healthful, natural life in the open air, and sleep out of doors, summer and winter. Even in this climate one can sleep out of doors in winter if he chooses. A young man in New York who was getting ready to go to the Klondike, went into practice, to convince his friends that he would not freeze to death. Out of a large buffalo robe he made a bag, pitched a tent in the back-yard, and slept in the tent in the buffalo bag, all the winter, without suffering any injury from the cold.

A cultured lady in New Jersey who made up her mind that she needed a little hardening, slept out of doors all

last winter. She had her bed put out on the second-story veranda, and an awning put up, with a net around it to keep the night hawks away. Plenty of clothing was provided, a cap worn to keep the ears from freezing, and she got along so well that she slept out of doors the entire winter.

A doctor in Denver some time ago made some experiments with consumptives. A tent colony was established a little way out of Denver, and the patients progressed fairly well during the first part of the winter. But by and by there was a blizzard, and the thermometer went down to 20° below zero, and then they began to improve very fast. One woman did not seem to improve at all until the temperature reached this mark, and then she improved rapidly. She had before had no appetite, but that 20°-below-zero weather gave her an appetite, which was an indication that the body was beginning to work naturally, that the assimilative processes were being resumed, and from that time she kept on improving.

At Boulder, Colo., and at Guadalajara, Old Mexico, are sanitariums where persons suffering from tuberculosis are treated with the greatest success. But it has in recent times been discovered that it is not the climate so much that cures people; it is the outdoor life,— the pure, cold air, and the sunshine. Colorado is an especially good place for the outdoor life, because fresh air and sunshine can be had there all through the year.

In New York City, consumptives are

building little huts on the tops of the houses, and are recovering. Outside New York, Boston, and other large cities, tent-colonies, where consumptives can live out of doors, are being established. Every city ought to have outside it a camp where tubercular patients can live and get well. The air inside the city is not so good as it is outside; but on the tops of the houses, where the sun can shine, it is a great deal better than it is in the damp dirty buildings in which most city people live.

Tuberculosis can be suppressed. It is not necessary for a person to die because he has consumption. Thousands of men and women have been sacrificed who might have been alive to-day if only the right procedure had been adopted. That which is necessary for the mastery of this disease is to return to nature — to live

naturally in the fresh air, develop the lungs, and eat proper food.

Tuberculosis is a low-level disease. People are not subject to it until their tissues have become vitiated, and their whole bodies weakened. It used to be thought that a man could not have tuberculosis if only he exercised his lungs. A man who had this disease went to a professor in Vienna for advice. The professor said, "You had better get a horn and learn to play it, to exercise your lungs." "Alas, professor," answered the man, "I am a bandmaster now."

To live a natural life is the only safeguard against tuberculosis. One climate may do as well as another if only you live out of doors, get plenty of cold, fresh air, bathe the body with cold water several times a day, and take as much exercise as you can.

GORGED TO DEATH

THE Iowa papers give an account of a man, a certain Melloy, who gorged himself to death eating eighty-five pounds of beefsteak in nineteen hours, ending by swallowing three large cans of salmon and four apple pies. Four hours later he was found dead in his room.

Melloy prided himself on being the world's champion big eater. Probably no one but an Eskimo could have exceeded the gastronomic feat which he performed. That he died is not surprising. The only wonder is that he was able to stow away in his anatomy in so short a time so large a part of a dead ox.

Cases are on record in which men have eaten in "beefsteak contests" ten or twelve pounds of beefsteak, or more, at a sitting; but this man certainly broke the record.

Death was doubtless the result of poisoning. Eighty-five pounds of beefsteak contain enough poison to kill a much larger and tougher animal than a man. Reckoning fourteen grains to the pound, the amount of uric acid contained in a

pound of beefsteak, according to Professor Hall, of Manchester, England, eighty-five pounds of beefsteak contain nearly twelve hundred grains of uric acid, or only a little less than three ounces. And with the uric acid are associated other toxic substances of far greater importance than uric acid, because much more poisonous in character, and capable of producing most disastrous effects, even in very small quantities. These poisons everybody who eats beefsteak or other meats is taking into his system; and there is no doubt in the mind of the writer that thousands of people die annually as a result of flesh eating.

The use of meat has rapidly increased within the last century, especially in the cities. At hotels, different kinds of meat constitute the principal part of the bill of fare. At a great banquet, meats of various kinds are the principal dishes. Man is not naturally a carnivorous animal, but an eater of fruits, grains, and nuts. This perversion of the natural order in the matter of diet is certainly

responsible for an untold amount of disease and degeneracy. Of the million or more deaths which occur in the United States annually, it is more than probable that at least ten per cent, or 100,000, are as truly the result of flesh eating as was that of the Iowa glutton, Melloy.

The report of the extended researches which Professor Chittenden conducted during the past year at Yale, at the suggestion of Mr. Fletcher, showed most conclusively that the diet of most civilized people contains a great excess of proteids, and that this excess is almost wholly attributable to the use of flesh foods; for, living upon a natural diet of fruits, grains, and nuts, there would be little, if any, risk of an excess of this element of food. Flesh food consists almost wholly of proteids; hence in eating it, one easily gets an excess of the substance, which, according to Professor Chittenden, is needed by the body only in the proportion of one and one-half ounces per diem. Probably the majority of people eat three or four times this amount of proteids. The result is an almost universal beefsteak poisoning, at least in the United States, England, Canada, Australia, South Africa, and other countries where meat is comparatively plentiful and cheap, and where the false notion prevails that one must eat freely of meat in order to be strong.

Many members of the medical profession are raising their voices against the excessive consumption of meat. At the present time all respectable medical

authorities agree that too much meat is eaten, and that it is quite possible to live well without meat. It is also agreed that in many forms of disease, flesh foods must be wholly discarded to secure recovery. The writer was recently consulted by a woman whose husband was suffering from a serious form of nervous disease which incapacitated him for business. There was decided evidence of mental disturbance. In describing the case the lady mentioned having consulted an eminent Philadelphia specialist in nervous diseases. After careful examination of the case, the great specialist made three recommendations: First, that the patient should discontinue the use of flesh foods at once; second, that he should stop the use of tobacco; third, that he should devote less attention to business, and give himself opportunity for exercise in the open air. Following these suggestions, without the use of any medicines, the patient was greatly helped; and when given an opportunity to enjoy the full benefits of the Battle Creek Sanitarium system in diet and health training, the patient made such rapid improvement that his friends considered the change little short of miraculous.

The evils which result from flesh eating can no longer be ignored. Intelligent men and women everywhere are getting their eyes open to the stupendous mischief which arises from the use as food of the carcasses of dead beasts. It is not possible to maintain life at its highest tide on a diet of corpses.

A Slaughterhouse Victim.

The papers recently reported the death at Cripple Creek, Colo., of a woman who, three years ago, while visiting the slaughterhouses of the Armour Packing Company in Chicago, was completely paralyzed on one side as a result of the shock produced by the sight of the terrible tragedies which are constantly being enacted in that great killing establishment. This victim of slaughterhouse

horrors is only one of many thousands who meet their death through the slaughterhouses every year. It may not be said, indeed, that the death can be traced so directly and immediately to the slaughterhouse as in this case; but the multitudes of men and women who die of gouty disorders, rheumatism, and other maladies resulting from uric-acid poisoning might enjoy many years of life were it not for the deadly dose of uric

acid and other poisons derived from the products of the slaughterhouse,—meat eaters' disorders, among which must be included trichina and tapeworm, tuberculosis, and possibly cancer, as well as those which have been traced directly to uric acid.

Quick Bread.

According to a recent report from United States Consul Mahin, located at Nottingham, England, there has been patented in that country a quick process of bread making, which eliminates the sponge altogether, and makes it possible to prepare the bread for baking in one hour's time. In a public test of the method, a batch of twenty-five loaves was produced from the raw flour in two hours and thirty-five minutes. This method produces a larger number of loaves, and the bread is remarkably sweet. The gain in time is made chiefly by the regulation of the temperature.

The Tabloid Age.

[Fifty years ago Dr. Jacob Bigelow, of Boston, wrote a criticism of the then rapidly growing use of drugs, under the guise of a fable, "The Paradise of Doctors." The following poem by Mr. J. W. Foley is an almost equally good presentation of the present reign of tabloids, to which thousands of people flee for relief from every conceivable ill,—a habit only resulting, in the majority of cases, in the aggravation of ailments which would quickly disappear with the correction of the wrong habits in diet, dress, or some other direction, of which they are the natural and inevitable result.]

"Give baby a pill, I fear he is ailing,
Give Johnny a powder and mama a pill,
Give grandma a wafer, her eyesight is failing,
Give mother another, she's looking quite ill.

Alas! the prescription that rends us and shocks us,
The old-time decree of the doctor's no more,
For anti-pain tablets are put up in boxes
And every one is his own pharmacy store.

"No more for the baby we sit up and ladle
Decoctions from bottles when he may be ill,
We lay of the tablets a box in his cradle
And let him engorge them whenever he will,
While Johnny, the schoolboy, needs only to ask it
In terms of entreaty sufficiently plain
To get headache wafers with lunch in his basket,
To be taken *ad libitum* when he's in pain.

"Who fears, in this age of advancement, to tamper
With nerve-soothing wafers or nerve-racking pills?
No traveling satchel or picnicking hamper
But boasts its assortment of tablets and pills.
For what of disease's vagaries and notions,
Or how may their evils be made manifest,
When we have cheap tablets, pills, nostrums, and potions,
And mankind dispenses its drugs from its vest?

"So, laddie or lassie, what if we may need 'em
Or not, let us take them. With tablet or pill
I pledge, if not health, then a drug-addled freedom
From pain, in a potion imbibed as you will.
Alas! the prescription that rends us and shocks us:
What need have we now for the doctors of yore,
Since anti-pain tablets are put up in boxes
And every one is his own pharmacy store?"

... Question Box ...

10,152. Soft Foods—Constipation—Nut Mill.—H. K., Pennsylvania: "1. How should cereals and grains be eaten? 2. Can a constipated person take too much fruit juice? 3. How are fruit juices best prepared? 4. What fruits are best for this condition? 5. When should they be eaten? 6. Have you a book telling how to make all kinds of nut butter? 7. What is the best mill for making nut butter?"

Ans.—1. They should be thoroughly cooked by baking until well browned, then should be well masticated. They should be reduced to a liquid state in the mouth.

2. It is possible for any one to take more food of any kind than is wholesome.

3. By expressing the juice from the fresh fruit, then canning or bottling.

4. Acid fruits, sweet fruits; in fact, all fruits.

5. With the meal.

6. The process of making nut butter consists simply in crushing the nuts to a paste by any convenient method.

7. The Good Health Nut Mill.

10,153. Cereals.—E. V. H., California: "1. What cereals may be obtained ready prepared for use? 2. What food will supply me with starch without cooking? 3. Should rolled wheat be cooked? 4. Where can I obtain literature giving the food values of different fruits and nuts? 5. Where can I secure the book by Horace Fletcher mentioned in October (1903) GOOD HEALTH?"

Ans.—1. Wheat and corn. Send to the Sanitarium Food Company, Battle Creek, Mich., for a circular.

2. Granose, granuto, granola, toasted corn flakes. In fruits and nuts the starch is cooked in the sun, and is furnished in a form ready for immediate assimilation.

3. Rolled wheat, as well as all other similar preparations, requires thorough cooking.

4. "The Miracle of Life," published by the Good Health Publishing Company, contains the information you desire.

5. From the Good Health Publishing Company, Battle Creek, Mich.

10,154. Swelling of Hands—Nuts—Cocoanut—Colds—Pinworms.—Mrs. G. B. G., New York: "1. What is the cause of swelling of the hands, the fingers turning white, and at times chills during the day and night? 2. Are English walnuts and pecans difficult to digest? 3. Is cocoanut to be recommended? 4. How can a cold be cured by drugs? 5. Do you approve rubbing the chest with oils for colds, especially in the case of children? 6. What is the cause of and remedy for pinworms?"

Ans.—1. An exact diagnosis is not possible without personal examination. A physician should be consulted at once.

2. Dried nuts in the form in which they are usually found are recognized as somewhat difficult of digestion. These foods require very thorough mastication; or they may be converted into a paste by grinding, which facilitates mastication.

3. Yes, but the fiber should be wholly rejected.

4. We are not familiar with any drug which will cure a cold.

5. Yes, but rubbing the whole skin with cold water before the application of the oil is better.

6. Pinworms are parasites. They generally indicate indigestion. The bowels should be emptied daily with a soap enema, and afterward a solution of quassia should be introduced in sufficient quantity to fill the bowel entirely. This should be repeated three or four days in succession; then it may be suspended for three days, then repeated again. A number of repetitions of this sort may be required. The quassia solution should be prepared by soaking a pound of quassia chips in a gallon of water overnight and then boiling for an hour.

LITERARY NOTES

"**Physician vs. Bacteriologist**," by Prof. Dr. O. Rosenbach, of Berlin. Authorized translation from the German by Dr. Achilles Rose. Funk and Wagnalls Company, New York and London, 1904. Price, \$1.50 net.

This book is a protest against what seems to the writer, as it undoubtedly is to some extent, a usurpation of the place of the physician by the bacteriologist—against the substitution of work in the laboratory for close personal study of the patient at the bedside. The author seems, at times, to be somewhat prejudiced against bacteriology, but the book as a whole shows that he appreciates its value, but would have it confined to its proper sphere and held secondary to hygienic measures. He would have the public more emphatically taught that disease is not due to the presence of bacteria so much as to unhygienic habits and surroundings. His idea is expressed in the following suggestive sentences:—

"Disinfection is to hygiene as is the strict observance of certain outer forms and precepts to fulfil the substance of the law of morals. . . . We appear painstakingly cleanly in that we clean the surface of things symbolically, but, unfortunately, we neglect the real internal cleansing, *i. e.*, the true strengthening of body and mind.

"The watchword for the future must be: Not fear of bacteria and measures of disinfection, but improvement of the vital conditions and development of independent thought and action in accordance with the requirements of social ethics."

The Christmas **Scribner's** is rich in color illustrations and in pictures in black-and-white. The frontispiece, in colors, is from a drawing by Maxfield Parrish; the colored cover is by David Ericson. There are also eight pages in very rich color showing scenes from the old ballads, drawn by Beatrice Stevens. Sarah Stilwell contributes a beautiful illustration in color of a mother and child; and Walter Appleton Clark's sketches of an old French village at Christmas-time are reproduced in tint.

Alfred Henry Lewis is a frequent contributor to **Success**, and for the December number he has written a splendid article on "Men Who Have Matched Opportunity."

McClure's Magazine for December fairly radiates the spirit of Christmas. There is good cheer, pleasant entertainment, the beauty and joy of life shining out of its pages; and underlying all this there is compelling seriousness and importance. The magazine seems to grow constantly richer, more varied, more brilliant, more authoritative—all qualities well reflected in this number.

A species of grass, which grows in great profusion in South Africa, has been found available for paper making, and British manufacturers are contemplating the erection of mills on the ground. This will be a new industry for South Africa.—From "*From the Field of Fact*," in **Four-Track News** for December.

The Four-Track News is 50 cents a year or 5 cents a copy, but on and after Jan. 1, 1905, the price will be \$1.00 per year or 10 cents per copy.

The December **Good Housekeeping** is a beautiful number and "solid meat" withal, its 132 pages packed with the practical and cheering things of which the reader will be loath to miss a line.

Every one who is engaged in any branch of mission work should secure the December **Life Boat**, a live missionary journal full of experiences and practical suggestions in every phase of Gospel work. This number contains an earnest and stirring article on Rescue Work, by Mrs. Edholm, author of the well-known book, "Traffic in Girls." The magazine is packed with pointed paragraphs on Physical Redemption, Rescue Service, Neighborhood Gospel Work, etc.

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J. H. KELLOGG, M. D., EDITOR

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BATTLE CREEK. MICHIGAN

"My Lady Beautiful, or The Perfection of Womanhood," by Alice M. Long. Published by M. A. Long, Chicago, Ill., 1904.

This work is an addition to the number of books issued during the past year advocating beauty culture by means of hygiene. Women have now no excuse for not knowing that outward beauty and grace of body depend upon inward purity, soundness, and health. The distinctive feature of this book is that the

author bases the attainment of this desirable condition mainly, if not entirely, upon the mental attitude, believing that all the organs are virtually under the control of the mind, and can be made to work harmoniously by means of autosuggestion. Various formulas are given, to be repeated as part of the treatment for different conditions. For instance, one afflicted with obesity is recommended to charm it away with the following magic formula:—

"I am growing lighter and lighter each day. Each week I shall lose two pounds. My food is assimilating properly, all waste is being carried off, and I am growing better in every way."

Prescriptions of this nature may be of value to those whose maladies exist chiefly in the imagination. The book, however, contains much sound hygienic teaching, and some finely illustrated directions for exercises in physical culture which can not fail to make these who follow them stronger and healthier, and therefore happier and handsomer.

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"ANYTHING new on the subject of safety in railroad travel is likely to receive a great deal of attention these days," said an old railway official in a recent conversation. "In fact, the railways are pretty fully alive to the



needs of the situation, and some of the best trained minds of the day are spending much time and thought in efforts to perfect to a still higher degree the system of appliances now in use.

"Take, for instance, a line like the Chicago & North Western," he continued, "where there are over seventeen hundred stations on the system, with a tributary population of more than seven and one-half million people, reaching almost every community of importance in nine of the western States. Now, the question of thorough discipline of the big army of employees required on a road like that, is one that's enough to stun the average man.

"Every man of them, from the boiler-maker's helper, heating rivets in a portable forge, to the flagman at a country highway crossing, must be trained and disciplined to that point where an error or omission in his duty is practically out of the question. With such training, it's no wonder some of our biggest men are found in the railway ranks. They are men who can do things, and do them right when they're called on.

"It is a great thing, though," continued the veteran, "to see the way in which some of the western roads have not only kept pace with the growing traffic, but have looked ahead into the future and taken a wholesome grasp on this question of safety, steadily expending millions of dollars in order to take care of these millions of Americans who travel over their lines.

"They tell me that on the North Western Line they maintain no less than six hundred and ten electric block signals, one hundred and twenty-six interlocking plants, over nine thousand miles of telegraph line, over forty thousand miles of wire, and a force of seven-hundred telegraph dispatchers and

operators in the movement of their traffic. Besides this there is an army of crossing watchmen, operators of safety gates, signal-tower men, track walkers; in short, a highly organized system looking after the safety of patrons. Their widely announced only double-track to the Missouri River is one of the most aggressive moves ever made by a railway, and one the bearing of which upon the question of safety is obvious.

"After all, though, I place the greatest dependence on that process of training on western roads that keeps the heads of departments in close touch with their men, requires unceasing vigilance on the part of everyone concerned, and results in a force brought up to the point of highest discipline. This training the North Western and other roads give their men is a thing that nothing else can take the place of."



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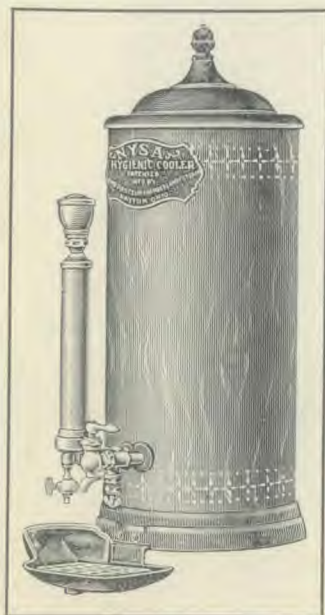
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