

## THE BEGINNINGS OF HYDROTHERAPY.

A Stereopticon lecture at the Sanitarium Parlor, Battle Creek, Mich., Thursday,  
January 6, 1910, at 8:00 P. M., by  
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We are continually reminded of the fact that there is very little new in the world. Most of the new ideas that are exploited in modern times, with the exception of those that depend upon purely modern inventions, as discoveries in electricity, light, etc., are really only rediscoveries of things which have been long before lost. I have heard, and I have no doubt many of you have also heard, the famous lecture of Wendell Phillipps on the lost arts, in which he showed us how much of our boasted modern knowledge was really very old and was really nothing but a rediscovery of things that have been well known before. Now the same thing is true with reference to the healing art. There is very little of good, of really genuine in rational therapeutics that is at all new. The things we do here in this institution are not new things at all; they are old things, and that is the reason why I feel confidence in them. If I thought the things that we are employing here, the methods and principles in the treatment of sick people, were innovations, that they were new things, that they were experimental, things on trial, I confess I should have very little faith in them, for I am a natural born skeptic. It is the hardest thing in the world for me to believe anything. If anybody comes to me with a proposition, the first thing that arises in my mind is to deny it. That is my natural disposition. I hope I have grown out of it somewhat, but I can not believe a thing until I have thoroughly tested it, until I have **gut** it open and looked

on the inside of it and thoroughly inspected the outside and the inside of it in every particular. And so with the principles and methods that we employ here, every single one has been tested, tried and investigated for a long time before we really felt perfectly safe to trust them.

Now, it has been forty odd years since I renounced the use of flesh food,--I think about forty-four years, yes, it is forty-four years, just about now, since I abandoned the use of flesh food, and in that forty-four years, I have not eaten a pound of meat, and only on a very few occasions during that ~~xxx~~ time, and that many, many years ago, have I even tasted it at all. On two or three occasions I have found myself under circumstances which I then thought warranted the belief that it would be better for me to eat a little meat; so I did take a little; but I do not allow myself to get into such a situation any more. I always have something in my bag or my pocket, enough to help me out in an emergency. I had not yet learned just how to manage a few things. However, for twenty-five years of that forty-four years, --I didn't know whether I was going to continue on a non-flesh dietary or not. I never took a vow that I would not eat meat; I never took any pledge of that sort; but I said, for twenty-five years, it was a pure experiment. I said, I am a young fellow, only fourteen years old, and my one little life is not worth very much, and I am going to try an experiment with myself and see what it does with me. And as I went on with the experiment, I became more and more satisfied, and after twenty-five years of experiments upon myself and observations upon other people in which I compared the two things for twenty-five years in this institution, when we used flesh, when we had meat tables here where we gave people meat if they wanted it,--if we had patients we thought would do better on a meat diet, we gave them a meat diet. In fact, during the thirty-four years since I took charge of this institution, in that thirty-four years there has been only about eight years that we

we have not been using meat here--only eight years out of the whole thirty-four that we have not had meat in use in this institution; so you see it is ~~is~~ not an idea that we have not investigated. We had our meat tables and made the comparison; we tried one way and tried the other way; and some eight years ago I said to my colleagues here--there were twenty-five of them, about,--I said, "Haven't we tried it long enough? Aren't we satisfied as to whether the meat diet is good for our patients or not, or whether we can cure people better without flesh food?" And there was not one dissenting voice in the whole institution among our doctors and our managers and the head ones, and the older, experienced nurses; there was not a single dissenting voice. When I said, "Shall we discard meat entirely, dismiss it from the institution?" That was after our fire. We were building up a new institution here, and I brought the question up one day not very long after the fire, perhaps three or four weeks after the fire, and when I brought the question up, I first called the cooks in and said "What do you think about it? How would you like to try to prepare meals for us here without any meat?" "Oh," they said, "it would be such a delightful thing. We want to get rid of this miserable odor of fried flesh, of burning flesh; we are so tired of it." Well, I called in the housekeeper and said, "How do you think you can get along in getting up bills of fare if we do not use any meat?" "Oh, fine, Doctor; we will get up just such nice bills of fare I don't believe anybody will miss it." I got the managers in, the steward, and the doctors all together, and everybody said "Let us discard the thing, because it does not do anybody any good, and it is a nuisance to have the thing around." "Well, now shall I announce it?" "No, I guess I better not announce it. I said I would not say anything about it, because we had 1400 people, and if we told them we were not going to allow them to have any beefsteak, they would all think they were going to be starved to death sure and would all want to leave. So we said,

"We will do this way--use a little strategy." I got all the waiters together and instructed them that if anybody at the table called for beefsteak, they should take the order and go to the kitchen; then go back and say, "We are very sorry, but we are out this morning." "Well, all right; then for dinner; you see that I get a good, nice steak for dinner." When dinner-time came and the steak was called for, the waiters went back to the kitchen again, come back and report they were dreadfully sorry, but there is not a bit in the kitchen; the steward has not provided us any. They didn't get it today out there. "Well, all right, give me something nice for supper." So when supper time came it was the same story. Well, some of them began to think perhaps this was a put up job, and the next morning a gentleman said, "Now, I want you to go and get my beefsteak, and I want you to understand that there is to be no fooling about this thing. If you don't give me that beefsteak, I am going up the street to the Phelps Sanatorium, and I shall be moving right out of here." Well, the beefsteak did not come, and dinner came and there was no beefsteak then; but the gentleman said, "Well, I will just wait here another day", and he waited over another day, and by that time he concluded not to go, and there was not a single patient left the institution, not one.

And from that time till the present time, I assure you everybody here has been more and more and more convinced that it would be the worst thing possible to have any of these dead carcasses around the place; that when we sit down at the table it is for a feast and not for a funeral. We are there to promote things, to take this food that has been prepared by Nature personally for our use, to take that food and transfigure it into living, active, sentient human being; and we want the very best we can get; don't want any second-hand stuff. I was in London some few years ago, going along the street, and I saw the most hideous sign in a window there--saw the words, "Second-hand teeth."

I looked up and it was a pawn shop, and a second-hand store. I said, "That is the limit. I have known of people wearing second-hand coats, second-hand clothing under pinch of poverty, and have known of people who were willing to buy second-hand furniture, but I never did know of anybody that was willing to wear a set of second-hand teeth; and I said to myself as I walked along--I went back and read the sign again to make sure of it,--I said to myself as I walked along, "How would one feel if he could find a pair of second-hand teeth, a set of second hand teeth that would fit him,--how would he enjoy eating with them? He would be likely to be thinking all the time, 'Now, I wonder what these teeth were chewing before; I wonder if they chewed gum; I wonder if they chewed tobacco; I wonder what they ate; I wonder if they ate Limburger and things of that sort,'" and one would be more or less disconcerted; it would kind of spoil his appetite.

Well, half an hour afterwards I sat down at my hotel to dinner, and the man next to me was a big fellow with a gruff voice, and I couldn't help but hear what he said to the waiter. He said, "Bring me --well, bring me some calve's brains." I took a look at him and said to myself, "That is just exactly what he needs,--second-hand brains", and then on that bill of fare as I looked down through it, there was second-hand liver, don't you know, and second-hand kidneys, and I said, "Well, now, then, second-hand teeth would not be anything at all so bad compared with taking brains second-hand, or with taking liver second-hand, or kidneys- second-hand, or with eating second-hand stomach in the form of tripe", and pretty nearly that whole bill of fare was second-hand stuff. I said I would a great deal rather have a set of second-hand teeth that I could wash up good and clean, and scour them, disinfect them; but how in the world is one ever going to disinfect this second-hand liver? How

can one disinfect those second-hand kidneys that have had filth strained through them of the vilest kind, strained through them for years until they were saturated with it and have the odor and the flavor of it,--how in the world is one ever going to disinfect such second-hand flesh as that? Well, I concluded, as I said, something like forty-four years ago, that I would take my food at first hand, and I am still doing it, and I believe it pays; I believe it is a profitable thing to do, and certainly it is a very comfortable thing to do, for one doesn't have to stop to think when he is eating first hand food,--don't have to stop to think, "Well, now, I wonder if there have been any trichinae squirming around in it."

By the way, do you know that there are more men who have trichinae than hogs? When I was in Bellevue Hospital Medical College, Dr. Janeway, the professor of anatomy there, told me that one person out of seventeen of all people who came into that anatomical laboratory--paupers died there and nobody claimed them and their bodies are used for dissecting material,--and he said, "I find one out of every seventeen--that would be six per cent of all the bodies that are examined here in this place, have trichinae all through their muscles." Now, down in Chicago, there is a similar institution down there where they dissect pigs and hold post mortem examinations upon cows and calves and hogs and things, and the government has experts down there that inspect the tissues, and the government has published to the world the fact that they find two per cent of all these hogs have trichinae in them. Now, will somebody tell me if they can why it is that six per cent of all men have trichinae, and only two per cent of hogs? Isn't that a singular fact? It is singular when you don't stop to think about it, but really it is not singular at all. The reason is because there are more men who eat hogs than there are hogs who eat men. That is the reason. Now, every farmer knows that men are not made for hogs to eat.

He knows that hogs will not thrive on a flesh diet. But once in a while he may have a dead calf or a dead hen or something of that kind, and the hogs are always ready to eat it if they can get it; but it is considered by everybody that that is not good for hogs, and when the hog eats that sort of diet his flesh smells so bad and tastes so bad nobody wants it. A butcher told me he could always tell a hog that has been fed on flesh. Hogs fattened behind a slaughter house always have rank flavor or odor about their flesh so a man of delicate tastes does not want that kind of pork to eat. I supposed civilized men still have a little of the same instinct left in them that cannibals down in the South Sea Islands had. A missionary landed there some years ago and inquired about a ship load of sailors who had been shipwrecked there some years previously, and nothing more was heard of them; and he got a native partly converted and asked him what became of those sailors. There were twenty of them, and the native marked them off on his fingers, nineteen of them, and explained they were all eaten, swallowed by him and his colleagues and friends. Well, what about the other one, what became of him? Why didn't you eat him too? "Ah, he taste too like tobacco." They didn't like the flavor of him. Now, hog that is fed on dead calf, or eats a man, or eats dead rats, or that eats any kind of flesh whatever, when he is fed upon flesh, for instance suppose the hog is fed upon tripe--the same kind of tripe that comes to the table at the hotel--the hog is fed upon tripe, upon offal. That is what they feed hogs on at slaughter-houses,--the flesh of such hogs becomes so horrible it is too loathsome to eat. What happens to a man's flesh, then, when he lives on hog? If a man eats the same kind of diet? Here is a certain meal prepared. If a hog eats it, it makes him smell so bad and taste so bad nobody wants him. If a man eats it, what about him? What would he taste like if a cannibal got hold of him? Now,

my friends, the things we eat do something to us; they become a part of our bodies, and if we eat contaminated foodstuffs, our flesh becomes contaminated; it has an odor and a flavor about it that is not pleasant. Now, for my part, I would like to be so clean, so tasty, if you please, and so wholesome and clean that if a cannibal ever got hold of me he would like the flavor of me, because I am nearer to myself than that cannibal could ever get. I have to stand myself, and the conditions of my body and of my blood, and my tissues determine my thinking, determine the clearness of my thought and the activity and efficiency of my brain; determine the efficiency and the endurance of my body. A clean body is just as much better as it tastes, if you please, is just as much better as it is cleaner, purer, sweeter in every way; but I was going to talk about something else, but got to running off on a sidetrack.

I started to say that the things I am going to tell you about tonight are not new; they are old. I was sitting at a table in Vienna some years ago with Dr. Winternitz. When he found I was in the city, he insisted on getting up a little dinner-party and invited me to be his guest; and they all noticed I didn't take any beefsteak, roast chicken, oysters or anything else of the kind, and were rather alarmed for fear I would not get anything to eat. They asked me some questions. I told them I didn't eat meat. They said, "But you are not at home now. You do differently away from home than you do at home, don't you?" Now, I do the same exactly away from home as I do at home. They were rather disturbed, and Mrs. Winternitz said to me, "Do you think, Doctor, that people live longer who eat as you do?" "Oh, yes, I know it." "Well," she said, "I would do it myself if I thought I would live longer for it, for I want to live a long time." I said, "I can assure you it would be conducive to longevity." "How do you know that? You are not a very old man yourself yet." "Well, I had a relative who lived to be very, very old." I was prompted to give that answer



because a lady on the other side had just been saying to me in a sort of quiet, gentle way, "Doctor, you are the most original person I ever met in my life"-- a very kind way to say that I was a crank, wasn't it? Well, I knew what she meant very well, and I wanted to disabuse her mind of that idea; so I saw my opportunity when the lady asked me how I knew a person could live to be very old by living as I do. I said I had a relative who lived to be very, very old. "Oh, did you? How old?" "Well," I said, "I really don't like to tell you for fear you won't believe me." "Oh, yes, we will believe you; we know you are honest, that you are an honest man." "Well, then, I will tell you; my relative lived to be nearly a thousand years old." "Oh!" Their countenances fell. They suddenly decided I was a prevaricator. A gentleman across the table said, "Look here; just tell me his name; I would like to know his name." "All right; his name was Adam; and I claim to be a descendant of Adam and I am following his diet; and it is not an original notion of mine at all; it is simply the good, old fashioned way that the world has wandered away from and forgotten, gone off on a sidetrack."

Now, the very same thing is true of some of the things I am going to tell you about tonight; they are not new at all; it is all old. If you go back to the very earliest dawn of history, you will find traces of the use of water as a remedy in the treatment of disease. Dr. Hippocrates, the earliest doctor, perhaps, who lived, who lived three or four centuries before Christ, one of the very first doctors we know anything about, and certainly one of the oldest learned doctors for he wrote much about the use of water.

When I was in New York some time ago, at one of the hospitals there, I said to the doctor, "What do you do for sunstroke?" "Why," he said, "we have ~~it~~ a man stand up upon a chair and pour cold water on him; then at the same

time we have two men rubbing him just as hard as they can." "Well," I said, "is that new?" "Well," he said, "Yes, that is our way of doing it; that is our way here." I said, "My friend, did you know that Hippocrates, old Dr. Hippocrates did that more than two thousand years ago, and prescribed that method of treating sunstroke more than two thousand years ago, away back three hundred years before Christ--that very method of holding water up as high as possible, cold water, and pouring it down upon ~~him~~ the patient lying upon the ground, then having him rubbed vigorously at the same time?" That brings the blood to the surface, relieves the congestion, and carries off the surplus heat at the same time. If you pour cold water on without rubbing, it would kill the man, but the cold water is poured on with the rubbing, and that draws the blood to the surface, and the blood coming to the surface is cooled off as fast as it is possible to cool it off, reduces that excessively high temperature to which sunstroke is due. Nothing could possibly be more rational; nothing could be more scientific than that thing, yet, it was discovered by Dr. Hippocrates away back more than two thousand years ago, then forgotten all about until a little more than one hundred years ago when a peasant boy, over in Austrian Silesia, away off on the eastern border of Austria close by the Russian line--a peasant boy made the re-discovery of this thing,--a boy who could not read or write; was not able to write his name until he was forty years old, and when he was sixteen or eighteen or twenty he learned to read, and that was all the learning he had. He knew nothing at all from reading, yet instinctively discovered the thing.

There is the man to whom I refer. His name was Vincens Priessnitz. There is his wife, and there is the house where he was born. It has been modernized somewhat. He was born in a little back room on the back side of the house, that you do not see here. I visited the house, made a pilgrimage there

to see it. It was really a pilgrimage to me; I felt like I suppose the Moham-  
medan feels when he is going to Mecca. I went to this place away off on the  
eastern borders of Austria--a long ways to get there,--have to go up on a little,  
narrow-gauge railroad, away up in the mountains. But one hundred years ago  
it was a great deal more difficult to get there than it is now. It took  
six weeks from London to Graafenburg. But even then, one hundred years ago,  
travellers went there from this country, and from away down in South America.  
There they found this boy, Vincens Priessnitz, and I will tell you about this  
picture in a minute.

It was a very interesting story--how he came to use water. One day  
there happened to be a travelling tinker, or rather a locksmith, as they called  
them, travelling through the country, and he stopped at the house of the father  
of Priessnitz, was staying there for a day or two, and while he was mending  
locks about the place, in the house,--the locks were made by blacksmiths in  
those days, and the blacksmith traveled from place to place, came along perio-  
dically and made locks, and mended locks and did other jobs of the sort--this  
locksmith was staying in his chamber where he slept, in the morning, and he  
heard the elder Vincent say to his hired man, "Well, I am afraid we will have  
to kill that cow." The cow had backed up against a sickle and had cut the  
tendons of her leg low down near the foot, and he said, "I am afraid we will  
have to kill that cow." This man heard what was said, and he came out of his  
room after he was dressed, and said, "I can cure the cow." He said, "I have  
a magic by which I am able to cure wounds." So he said "If you will give me  
a couple of little sticks and some cloths and some water, I will cure the cow  
for you." So, as he was going up into the place where the cow was, he insisted  
on going alone; but the father said to his son, "Now, Vincens, you run along,

and you keep watch and see what he does." He was a little fellow about twelve years old; so Vincens went along to see what the magician did to cure the cow, and he watched him, and he saw he took these two sticks and crossed them around the cow's foot--the cow was lying down, and he laid these upon the wound, crossed in this fashion; then he repeated over the sticks some cabalistic words, and he had some words he repeated, mysterious words that had no meaning themselves, but he repeated over this formula; then he took a cloth, and with the pitcher of water he wet the cloth, wrung it out and wrapped it around the wound, and he said when he came back, "Now, you take that cloth off and wet it three times a day, and put it back on the wound, and it will get well." In the course of a few weeks, sure enough, the cow was well; and the locksmith went on.

He came back after a few weeks on his return, and it created a good deal of interest there; and it was decided while he was gone that little Vincens should become a magician; that he should become a magic healer; so it was decided to purchase the formula from the man and pay him for the formula he used for healing the cow. It was bought of him, and Little Vincens was installed as a magic healer. So he began healing people. First he began on animals, and these are some of the animals he treated. These are pictures of him that were published in his biography that was prepared after his death. I obtained a copy of it when at Graafenburg, and these pictures were copied from that book.

Here is a hog that has had a wet girdle put onto him, the Umschlaag, as they call it over there. Here is a horse that he is treating for an injured limb. Little Vincent began treating the horses and cattle about the neighborhood, and the recoveries were so remarkable that people began to come and demand help also; and while I was there I saw a large drawing of the little

settee in front of his father's house, completely filled with poor people that were there; and Vincent was rubbing their limbs, putting on wet bandages.

He himself had an accident that was very interesting. He was run over. In his spare time he helped his father up in the woods, in the mountains, cutting down the big logs, and carrying them down the mountain. One day the horses ran away, the log got loose from the sleigh and rolled over on poor Vincent, and crushed his side so badly the doctor said he must die; that he never could recover. But he had cloths wrung out of water and laid over him at the same time uttering his cabalistic words, and in a few weeks he was well inspite of the doctor's prognostication; and that taught him as well as others that water was just as good for men as it was for animals. And he began to get a great reputation that spread all through that part of Austria and Bohemia, and other parts; and he was known as the doctor of the little stick because he used these two little sticks. That was his name--the doctor of the little sticks; and he by and by discontinued the use of the wet rags, found the rags were not very handy, and found a sponge was just as good, and he used the sponge instead. He adopted the use of the sponge, and he was finally arrested and tried for practicing magic. The people thought he must put something into the water. He discontinued the use of the magic words, and ~~he~~ after he was arrested and taken down to the little village a little ways down from Graafenburg, and he was thrown into prison and tried for witchcraft for using magic; but he was acquitted because he proved he didn't put anything into the water. He was finally let off on the condition that he would promise he would use those cabalistic words no longer. So he discontinued the use of his magic words. Then he got the reputation of being the doctor of the little sponge, and was known far and wide as the doctor of the little sponge, because he continued the use of water with the sponge without the magic. And he himself, little by little, dis-

covered that it was the water that cured and not the magic at all. Then he became a great enthusiast.

Here is the boy soaking his wounded hand in water. This is a wooden pitcher. They use those same wooden pitchers still. I have one that I brought home with me. The coopers of that country are extremely expert and everything is made of wood. Out in the mountain behind his house there are a dozen or more springs in the mountains. I traveled fifteen or twenty miles through the mountains visiting many of them; and one of these springs he arranged with some hollowed out logs which allowed the water to run down this way; and there was a thick grove of trees about here and no buildings at all at that time. The buildings are all modern developments; and he had the water falling down about fifteen feet, and he used to send his patients out there some eight or nine miles from his home to get the benefit of this water. By and by he brought the water down to his house through hollow logs--the same water. He had arranged there two douches,--a tall one about twenty feet high, and another one about ten feet high; and this is known as the mild douche, and this is the strong douche, you see. Here are some people going out to get the benefit of that douche in the woods that had not been moved in yet.

Here is one of the vehicles used at that time. The people would readily travel out there, even in winter time they were hauled out there in ox carts or sleighs to have the benefit of these douches of the all-healing water. And, as I said, he exercised very great ingenuity. He found the use of water was somewhat prevalent among the peasantry there. They knew something about packs; and this represents a patient taking packs. Priessnitz perfected the method and devised a great number of different methods of applying water, so many, in fact, that there has been very little improvement made since.

Some dozen or more years ago I was in Vienna, and I said to Dr. Winter-

nitz there, who is perhaps the world's greatest authority on hydrotherapy,--I said, "Well, Doctor, what is new?" He said, "There is nothing new, nothing new; I always follow Priessnitz." One of the most scientific men in Europe said that to me--"I always follow Priessnitz." Dr. Winternitz, when he was a young man, became interested in hydrotherapy and went to Graafenburg, as I went, but he went there fifty years ago, while I was there eight years ago, I think it was; Prof. Winternitz went to Graafenburg to study there under the successor of Priessnitz. Priessnitz died some nearly sixty years ago now, but his successor was there, and he went there and spent a year with him to study the methods of Priessnitz. And I found in Berlin some ten years ago, a very eminent doctor, Prof. Brieger, who has made some most remarkable discoveries with reference to ptomaines and toxins, who was one of the very first to discover the extremely virulent poisons produced by germs, to become acquainted with them, and he is still at work in that line; and I found him in charge of a great hydropathic institution there conducted by the government, in connection with their university, a splendid, great establishment where hundreds of people are given treatment free. And on inquiry I found Prof. Brieger had been one of the followers of Priessnitz; and Kuhn(?) who was a sort of follower of Priessnitz in Germany; and Pastor Kneippe. He had been brought to Pastor Kneipp's place and spent some weeks there to study Pastor Kneippe, who was not a doctor at all, but was simply a follower of Priessnitz.

So you see that scientific men, the most eminent of scientific men, have been willing to sit at the feet of these humble people to learn about the use of water. Why? Because they have learned by nature and by instinct and genius, have found out things; particularly this man Priessnitz, for I think he was an inspired man, ~~that~~ for he laid the foundation on which the world, in time, have made the most marvelous revolution in the methods of practice in the

~~praxiss~~ treatment of the sick that have been known in the whole history of the world. Water was the first of physiologic methods, and its use has been followed by many other marvelous innovations.

This patient has just had a pack and been wrapped up in a wet sheet, had a feather bed over him, and he is going to have a dip in a tubful of cold water when he gets through. This patient is having a compress put upon his back. These are all inventions of Priessnitz. This is an ingenious method by which he treated a boy. The boy had epilepsy and would not take his treatment; so he had a hobby horse for the boy to ride, and he stepped up behind with a pail of water which he poured over the boy while he was riding his hobby horse, and I don't know as the little fellow ever knew how it happened.

3 Now, to show the ingenuity of the man, here is Priessnitz's method of treating a drunkard. He knew the man was drunk because he had swallowed whiskey, and the whiskey was in his stomach, and the sooner he could get rid of it, the better; so he had a great fountain syringe here, filled full of water, and poured a stream of water upon the pit of his stomach with such force as it was possible for him to secure by this means, and provoked vomiting; so the stomach was unloaded and the patient was relieved. But when he doesn't have his apparatus with him, he pours cold water upon the pit of his stomach and has just as good results. I mention this so you can see something of the ingenuity of the man. Here is one of those primitive douches, just as it existed in his day,--hangs over the roof of the house, and the water is brought there through hollow logs from the mountain side. The patients helped themselves to the treatment. The patient would take off his clothes, hang them up here, then here is the water coming down, and he helps himself to his treatment. This patient, you see, is having a douche.



This is what we call our fountain syringe, that we imagine is a new thing, but this is one hundred years old at least. Here is a little wooden arrangement that has been hollowed out of wood, and a wooden piece attached to it; and here is another wooden piece and the hole plugged up here, and there is a little opening, and the water is put up into his eye, and he is getting an eye douche. We could not do it any better with all our modern appliances.

This shows one method of applying the chest pack to a person suffering from bronchitis. Here is water at a temperature of about 68°. but this is not very cold. The water came down in the coldest winter weather in those open logs, and it run down into the house in winter at a temperature just a little above freezing, at about forty degrees. I took a bath in it in order that I might feel I was really and truly baptised into the hydriatic cult--I took a bath in one of these big tubs which I found there which is still in use, and I enjoyed it immensely, although I confess I was very thankful when the bath was through with, for it was a little colder than I was accustomed to endure.

Here is the application of the moist abdominal bandage, the wet girdle, the umschlaag, or Neptune's girdle as they call it over there. It is simply a moist girdle. This man is getting ready for bed, and he is having these various appliances put on. He is having an application made to his legs and feet for rheumatism, and these applications are to be worn over night. Many times a similar application was put on to be worn all day. Here is another kind of chest pack. Here is a throat pack, and an ear pack; a head compress,--all of these were invented by Priessnitz and used by him. These pictures you see here are fifty years old, the pictures themselves. See this mammoth bath-tub, and the water coming down from the mountains, right from a cold spring. The patient was put in here, and had two men to rub him to keep him from shivering--most uncomfortable, but with vigorous rubbing he manages to keep warm.

Here the water is all in motion, and the patient is rubbing himself as vigorously as possible while the assistant is pouring cold water upon the spine; and you can get something of an idea of what sort of bath that would be. It is almost equal to surf bathing, and equally good.

Here is a method of treating the hand,--a wet cloth applied to it, and here is the dry cloth outside. The wet cloth is applied first, then here is the dry cloth which is applied over it. Here is the leg pack, and the body pack, and here is the feather bed which goes over it so the patient will be sure to get good and warm. That was one thing Priessnitz very soon discovered--that the reaction was the thing necessary; so every patient who came to him he saw him himself personally, and gave him the first bath, applied the cold water to him himself and watched to see whether there was a good reaction or not. If there was a poor reaction, the patient didn't react well when cold water was applied, he sent the patient away, would have nothing at all to do with the case; he knew the cold applications would kill that patient. It was necessary he should react well; and the great wisdom and sagacity which he manifested in his doings was most remarkable.

Here is a man suffering from gout, and he is having his legs rubbed with cold water, not for five minutes nor ten minutes only, but for seven or eight or nine or ten hours steady. Usually at the end of that time the gout was cured. Here is a powerful douche. You see the man has two strong rests here to support himself. He is hanging onto the railing here to keep from being washed away by the torrent that is pouring down upon him. Here is another method of putting on the moist abdominal bandage. The moist application, the moist bandage, the compress, as we call it, the heating compress, because it is put on cold and warms up,--it is being applied here; and here are the blankets

which will be wrapped around the patient afterwards,--for a patient suffering from Rheumatism, and this is a new method that had never been employed before. Electricity, linaments, anodynes, blisters, and things of that sort had been employed before; but here was an entirely new system invented by that peasant boy out there in the mountains.

Here is the magic sponge. The patient had a sweating bath, and now is having a cold application. Here is the hand bath, an arm bath, a leg bath, a head bath, an ear bath,--those are different kinds of local baths; and here is the application of the wet sheet rub. The sheet is held up here, put upon the patient's shoulders, then the corners are passed over, brought up behind, and tucked in or tied behind,--a very quick method of getting the sheet arand the patient, and then the patient was rubbed very vigorously. This shows another way of putting it on. First under the arms, then over the arms. This method brings the sheet more perfectly in contact with the entire body surface. Here is a man putting on his own application, first the wet bandage, and now putting the dry covering on; and now he is fastening it with strings so it will stay up. Here is a man who has had a wet jacket put on and his flannel coat over it, and e he is going out for a walk. The patients there were expected to walk anywherez from eight to nine or ten miles after their bath. This is the style of house which you see there at the present time, and the general appearance of the country in the best parts of it, the most improved parts. This man is out here having a ~~an~~ bath. He has an umbreâla, because it is his legs that are to be treated you see,--a sunbath to the legs and to the body in general.

This shows a man having a head bath and an eye bath at the same time. This patient is having a half bath, lying at full length in the bottom of a big tub. Priessnitz believed in exercise, and made his patients walk and drink a great deal. There are many springs, a dozen or more, through the mountains,

scattered a mile or so apart, and the patients were required every morning after a wet sheet pack or a cold bath to go for a walk. They put on a moist abdominal bandage around the body, and they must walk until they got thoroughly warm; and they walked sometimes ten or fifteen miles, and as they came to a large spring, they each had to drink a hornful of water. Each one carried his own drinking horn attached to him by a chain; and here was a stream of water coming out of the spring. The springs were not as elegant as this in the early days. This was an arrangement put up here by people who had been grateful patients of Priessnitz. Sometimes, in fact, you find beautiful marble foundations, that have been put there by groups of patients or by some wealthy patient who had been healed.

Here is Priessnitz himself as he stood chatting with his patients; he is also out for a morning walk. It seems there were dogs in those days as well as now. Here is a lady out for a walk; and here is a party out on some of the mountain paths, stopping at one of the fountains for a drink. I met them in just the same way, but wearing different kinds of clothes than they wore seventy-five years ago, of course, but this is a style some of you remember, styles not so very different from this. I remember in my boyhood when I was really sorry to meet a lady on the sidewalk because the walks were not so wide, and I always had to get off into the street or brush against the lady. It was impossible to pass a lady fifty years ago on the street or sidewalk without touching her clothes. It was a common thing to meet ladies who were spread out three and a half or four feet on the sidewalk; and I remember when this style first began to go out of use, some dress reformers put on garments that would be considered quite in style now that were then regarded as very hideous indeed because the dress was not distended by these monstrous hoops.

Here is the doctor coming down a path here you see. There were many

very steep climbs and walks among the mountains which required a great deal of exercise. Some of these fountains have been erected since the death of Priessnitz. This is a very dense forest of spruce, pine, hemlock, and cedars, and really a most delightful spot for one to spend the summers in at least. As I said, he believed in exercise, and he required his patients to work. This patient, you see, is splitting wood. He is sitting down to have a little rest, and he evidently is a cripple, for he has a crutch along with him. He is a one legged man, apparently, but he is, nevertheless, required to work. Here is wood he must split, and he is working at it, and here is the result of his work. But here is a patient confined to his bed, yet he must sit up and saw wood. The wood is carried into his bedroom, there, brought up to the bedside, and he is working away. This was a German nobleman who was suffering because he didn't have enough honest labor to make him sweat, so they induced him to sweat in this way; and fine ladies as well. This lady, you see, has a page who is dressed up in fine style, bringing up a visitor's card; but she is engaged in sawing wood, and so can not see visitors at the present time. Here are some other employments or exercises which were all used by Priessnitz in his time; so you see he had a great grasp of the ideas or natural methods of cure. He didn't have to hire any of his wood sawed. His patients did this for exercise. This is the great barn, and out behind the big barn he always had a big wood pile which the patients prepared for him and didn't get any pay for it either. Cows were kept here to furnish milk for them; and just on the other side was the kitchen, adjacent to the barn, and sometimes the visitors, it is reported, when in the dining room could easily hear the lowing of cows, and could easily also discern the flavor of the cow stable in the air.

Some of you are familiar with the name of Louis Prang, the great art publisher of Boston, who was often a patient with us during his life. He died

a year or two ago, but when he was here he told me of his personal experience at Graafenburg. He was taken there as a patient, to Priessnitz, when he was a boy of fourteen, and he had a very distinct recollection of the place and wrote a very charming article about it. Bulwer-Lytton, whose works, whose writings, I presume are familiar to you, was also a patient there, and wrote a very charming little book entitled, "The Confessions of a Water Cure Patient," which gives a very ~~xxmda~~ accurate description of life at Graafenburg.

And here you see he had the air cure as well. Here is his outdoor gymnasium. Here is the big trough that carries water down to the douche inside of this rude hut; and here are patients with sheets about them, running about through the air creating a wind by flapping the sheet as a bird flaps its wings.

Now, I have a series of pictures here to show you the modern hydrotherapy. We won't go through with them tonight, but will take them another time. The most of you are familiar with some of these procedures, and with many of them perhaps; but I wish to say about it that there is scarcely a single discovery that has been made in methods since the time of Priessnitz, since his work of seventy-five or one hundred years ago--scarcely a single improvement has been made, as regards absolutely new methods. There have been a few developed but no very great number.

These things, you see, are nothing but counterparts of things you have already seen. Here is the wet sheet pack; here is the fomentation. Priessnitz didn't know anything about the use of hot water; I must say that. Here is the wet girdle and the sponge bath. Priessnitz knew nothing about the use of hot water. His methods were entirely with cold water. Here is a patient who has just had a wet sheet rub, and you can see how the flesh has been made red by blood brought to the surface and the congested viscera relieved. Here is an arm, you

see, the first stage; and here is the second stage, you see--the reaction that takes place; and it is this reaction which is the thing that is so very important/ It brings the blood to the surface and fixes it there; and when it is done right there is a complete change of the circulation. ~~And here is this~~ A horse with a hide bound skin is sick, and a man with a hide bound skin is just as sick. A man whose skin is dry and harsh and cold has very little circularion in it,--that man has a congested liver, an overworked heart; there is too much blood in the heart--not a proper distribution of blood. Now, by manipulation of the skin, rubbing the skin, by these hot and cold applications to the skin, the blood vessels of the skin are dilated, the circulation is improved, and the blood is withdrawn from these internal parts. That is the reason why a person has so much relief from an electric light bath when he has hyperacidity.

This sitz-bath is more elegant than the ones Priessnitz employed. Priessnitz had them sit in a wooden tub, and anywhere from three to five hours, and the water was changed every half hour so it would not get warm. Here is the wet girdle, the compress, the chest pack; and here is the ~~alxahsi~~ <sup>electrical</sup> bath. The electrical bath is a modern innovation, of course, and the electric light bath, and the photophore, and the thermophore pack--these are all modern inventions, but they involve no new principle; they are simply methods of applying heat, and methods of applying cold, and the alternations. The real things were discovered by that matchless genius, Priessnitz. But I will not keep you longer.

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QUESTION

BOX

LECTURE

At the Sanitarium Parlor, Battle Creek, Mich., Monday, January 10, 1910, at

8:00 P. M.

by

J. H. Kellogg, M. D.

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I see we have quite a collection of questions here tonight. We will try to get to the bottom of them if we can.

Question: What is the cause of small, nearly flat, warty excrescences on the face coming after forty years of age? Is there any danger from them?

Answer: This is a peculiar form of skin disease known as lichen planus. It is often mistaken for something very serious. It is really not a very serious matter; it is very easily cured. These little excrescences can be scraped off and carbolic acid or something put on and that is the end of them. I remember some years ago we had a gentleman who came all the way from Minnesota. First he wrote me about his case and said there was a doctor up there who told him he had black cancer, and he had been treating him for some time with various salves, and didn't get any better; came down here and we found he had more than forty of these so-called black cancers, but, of course, in a very short time he went home without any black cancer and lived for a good many years. It is a good thing to get rid of these excrescences, for they may take on a malignant character. Warts and morbid growths of all sorts are uncanny things, unprofitable things, however. If one has a wart or mole or any sort of morbid growth he ought to get rid of it. A mole one should get rid of, because if you are ever going to have malignant disease, that is where it will begin.



That is a weak spot. Those tissues are unhealthy, unnatural, and they are more likely to take on a malignant character than healthy tissues. I have had cases repeatedly of persons who had warts for many years, and the warts became cancer. So while it is not cancer, it is well to get rid of it, and getting rid of it is a very simple thing.

Q. Does a child need more protein in its diet than an adult? *diet*

A. Yes, a baby needs twice as much protein in proportion to its weight as the adult; and a child five years old needs at least one half more than an adult. The extra amount of protein is needed to support growth. Protein is the material out of which muscles, nerves, and brain, and all the tissues are built; they are all made of protein. Protein is the material out of which the body is constructed. Here is a locomotive, for example; a locomotive is made of iron and it has to be fed with coal. Now, the body is a machine made of protein and has to be fed with starch and fat. Starch and fat are the clothes for the body; they are the fuel for the body, just as coal is the fuel for the locomotive. Protein is the brass and the iron which are needed for repairs; in the first place, needed for the construction of the locomotive. Suppose you had a locomotive, started it small, two feet long, and as it went along it gradually grew, developed, became larger and larger, and by and by became a full grown locomotive. That would be exactly what we have in the human body here. It starts out as a small machine, and grows into a big one. Now, there is needed all along, during the progress of growth, protein material for building into the body itself material out of which the machine must be constructed. Besides that there is the fuel which is necessary for the running of the machine--starch and fat and sugar,--fats and carbohydrates, to use the technical terms,--fats and carbohydrates. Carbohydrates consist of starch, sugar, dextrin, acids,

fruit acids, and pentoses. These pentoses you do not need to pay any attention to; they don't amount to very much--the jellifying principle in fruit juices--the thing that forms the jelly, the jellifying element that really belongs to the class of pentoses. So there are five different kinds of carbohydrates, but they all go into one class; you may call them all starch if you like, or carbohydrates--that is the proper name; and fats; these are the fuel to the body, while the protein is the metal, the material out of which the body is builded. Suppose you went to firing a locomotive here, throwing into the furnace--suppose you went to throwing in iron bolts, and brass sheets, brass and all kinds of metal things,--masses of iron. Very soon the locomotive would be choked. Very soon it would be unable to keep up your fire. Now, that is exactly what we do when we eat too much protein. We take in more of that material than we can make use of; so we have a lot of cinders left, for uric acid is a cinder; that is what uric acid is; it is a cinder,--an imperfectly burned protein substance; and that is why people have gout--is because these cinders of imperfectly burned protein are deposited around the joints; then we have other troubles also that grow out of the putrefaction of this protein. So a child needs more protein than an adult, because it is growing and needs metal and supplied to build up the body.

Q. Is peppermint a good thing to take to raise the wind from the stomach, or, rather, is it injurious to the stomach and kidneys?

A. Now, a very little peppermint doesn't do any harm. A very old fashioned remedy is peppermint and soda. When a person has sour stomach, gas in the stomach, peppermint and soda are given with the idea that they will raise the wind and stop the formation of gas in the stomach. Now, that remedy is not a very bad one; in fact, it is a pretty good one. With a little hot water

along with it it is a very good sort of remedy, and it is good because it stimulates the stomach to contract and relaxes the muscle at the lower end of the esophagus, and the hot water that goes with it is perhaps as useful as the peppermint,--perhaps more so. The hot water has the effect to relax the pylorus, and the soda neutralizes the acid so really they make a pretty good combination. There is no harm in the use of it in small doses in which it is commonly employed.

Q. Will veronal injure one's mind, taking it continually, five grains every night, or once a night, for insomnia?

A. It is very bad on the stomach and digestive organs. Every little while there comes out a new hypnotic. I remember very well when bromid of potash was brought forward as a hypnotic to take the place of opium, and to take the place of chloral. Chloral had been used before that, and it was thought to be a harmless thing. But chloral is injurious. First chloral was recommended. Opium is injurious; but now here is chloral; here is a new thing which will make a person sleep and won't do any harm. But by and by it was found chloral was doing harm. There was that great English scientist, Mr. Tyndall, whose wife killed him with an over-dose of chloral. Perhaps some of you knew that and have forgotten it. His wife gave him too big a dose. She thought it was a harmless thing, and she gave him so big a dose he never awakened. That great scientist, Tyndall, was killed by an over-dose of chloral. I happened to be in Paris at that time, and I remember what a sensation it produced. His wife was entirely innocent; she didn't want to get rid of him, but she supposed she was doing him a kindness in giving him some medicine enough to make him sleep, and she gave him too big a dose. It was found that this is a poison, a bad one.

But now somebody comes along with bromid of potash--a harmless thing, and bromid of potash was administered; but after while it was found bromid of potash did harm; that if a person took it for some time, he by andby got a coated tongue, a bad breath, a stupid mind; and if he took it in just a little bit too large doses, he got weak in the legs, could not walk straight but walked like a drunken man. I remember very well about twenty-five years ago, when we were just beginning to find that out, a lady came here, was brought here by her husband, and she had to be carried in, could not stand on her feet at all; she was brought in in a wheel chair; a few days after she arrived here I was giving a little talk, was speaking about bromid of potash, and I mentioned this thing I am mentioning to you now--about twenty-five years ago, and two or three weeks afterwards, this lady ~~said~~ was well, and she said, "Doctor, I have discovered why I got well so quick. When I came here, I was taking bromid of potash in large doses. My doctor gave me some in a bottle and he said, 'Now, whenever you feel nervous, take a little.' Well, I felt nervous every few minutes, so I took a teaspoonful every half hour, and I took thirty or forty spoonfuls a day, and she said," after a little while I didn't know what was the matter, but I got unsteady on my limbs; my legs got so weak they were sort of paralyzed, and I could not stand up and had to be carried as I was when I was brought here. But I stopped the use of it, and in three or four days I was on my feet all around the house." So you see what that bromid of potash was doing to her. I remember another lady who came from the South, and a doctor gave her a bottle of bromid of potash to take when she was nervous, and she took almost all the bottle on the way here, and when she got here I thought she had the opium habit, because she could hardly appear rational, she was so stupid from the influence of this toxic substance, of this drug. We used bromid of potash for years in large quantities in epilepsy to control the paroxysms of the disease; and very soon the mind became very much depreciated so that really the remedy seemed

worse than the disease. So bromid of potash has come to be rejected. It is used very little now compared with what it used to be. Then there came along a whole lot of coal tar products, a lot of them, there were ever so many of them brought forward as being splendid remedies, entirely harmless. It was claimed, "These are not mineral; these are vegetable remedies now, and they are entirely harmless." One by one they all proved to be harmful. Every single one of them has proven to be harmful until almost the last one here is veronal. Now, veronal I think is just as harmless as any of them; but I have seen a great many persons who have been taking veronal, a great many people coming here who have been taking it in five or ten grain doses for a few weeks, and in every single case we find these persons with coated tongues, depressed nerves, generally with weak hearts and fits of chronic poisoning. There isn't any doubt at all that every one of them are poison; if it were not poison, it would not have made you go to sleep. That is the reason why it is useful to you if it is when you take it as a remedy,--the reason why it produces sleep is because it is poison, because it has the effect to lessen nervous sensibility, and it does it just exactly as opium or any other poison does it--by its paralyzing effect upon the nerves, upon the nerves of consciousness and the faculties of consciousness and the nerve-centers involving the tissues and the vital functions,--they are all depressed by it. But now we must remember this: when we give a person medicine which lessens nerve sensibility, it lessens all nerve sensibility in the body. When you give a person a drug that lessens the sensibility of the nerves of feeling, it lessens the sensibility of the nerves of smell, the nerves of taste, and every other nerve in the body; it lessens the sensibility of the nerves that keep the liver at work, and of the nerves that keep the heart going, and the nerves that keep the stomach going--every nerve is weakened because the whole body is depressed. A medicine that puts a man to sleep

is a sort of club; it is like knocking a man in the head with a club. The drug knocks him in the head so to speak, it strikes him in his brain; it strikes a blow on the very inside of his skull. The brain has a protection in the skull, but here is something which gets inside and hits him right in the very vital centers of life; that is where this poison strikes him, and it lessens his vital power, lessens his life, lowers his standard of vitality and activity, and that is the way in which it puts him to sleep. There isn't any drug which puts a man to sleep that is not harmful. There can not be such a drug; it is absolutely impossible there should be any drug which will put a person to sleep, enable him to sleep when he is ~~isn't~~ not sleepy which will not do him harm. These drugs all impair the stomach. I remember some time ago we had a patient come here, a doctor who was taking veronal. He had a very foul tongue, and he was ~~very~~ unable to sleep unless he took quite a large dose of veronal. He would go to sleep at first with a five grain dose; but then a little later it took ten grain doses to put him to sleep, and then a fifteen grain dose, or a twenty grain dose, and then he could not sleep very well; but when his tongue got clean, he could sleep without the use of veronal, because it was the poison produced by intestinal auto-intoxication that kept him awake.

Q. Is there any objection to the use of sage as a seasoning in food?

A. It depends on the amount of it. I could not say a very little dose or flavor of sage would do anybody any harm, but sage has no food value, and the essential oil which gives it its particular properties is more or less irritating; but I don't imagine any little bit of sage would do anybody very great harm.

Q. What is the relative value of yogurt cheese and yogurt buttermilk?

A. Yogurt cheese is made with friendly germs, and yogurt buttermilk is made with friendly germs. A half ounce of yogurt cheese would be more effec-

tive than a tablespoonful of yogurt buttermilk; but I dare say a glass of yogurt buttermilk would have quite as many units of the oriental ferment in it as an ordinary portion of yogurt cheese--perhaps more. I might say another word about it. Yogurt cheese is adapted to certain cases. Persons who have acidity sometimes can not take yogurt buttermilk; persons who suffer from sour stomachs can not always take yogurt buttermilk, but can take the yogurt cheese, because the yogurt cheese is rich in fat and contains a large number of germs with less of the acid which is present.

Q. Is it good for a person with neurasthenia of the spine and suffering with insomnia to take static electricity?

A. That depends entirely upon other things. Static electricity is not a specific for neurasthenia or insomnia, but it is generally useful in the great majority of cases.

Q. Is there any danger of taking too much?

A. Well, this static electricity is a thing that doesn't stay in you. The electricity is there only while you are receiving treatment. The moment you are gone the electricity is gone. The moment the application is finished, there is no more electricity ~~until~~ in your body than before. I found just a little while ago a lady who came to my office and said, "Doctor, I am going home." "What is the matter?" I said. She said, "I have been badly damaged; Doctor, I have had such a shock I have got to go home and see if I can get my doctor to fix me up." "What has happened?" "Why, up in the bathroom I had a shock." "Well, what sort of shock?" "An electrical shock." "What happened? Was the machinery out of order while you were taking an electrical bath?" "No, Doctor, I will tell you how it was. I was lying on a couch up there and two nurses who had been giving electricity to a patient came out into the bathroom and

and they both touched me at the same time; one was negative and the other was positive, and I got such a frightful shock that I had to be taken right to my room at once, and I have got to go home to see if I can recover from it." Such a thing, you know, could not possibly happen. I had very hard work to persuade the lady this was impossible, and I don't know whether my arguments or explanations had any influence upon her or not; but she was laboring under the impression that electricity might accumulate in the body. She said her electricity does accumulate sometimes. You know, I have heard that here in this house, and seen it. People sometimes go about here, walk around about the house, across the mat, walk across the room and can actually make sparks come out of their fingers when they touch the fixture somewhere. That makes me think of a remark made by Mr. Kipling to an American gentleman. They were sitting at the table chatting, and a gentleman made some remark about the English climate, and the gentleman was complaining about the English climate. Mr. Kipling was complimenting the American climate. "Why," he said, "you have such an exhilarating climate that one has only to walk across a rug in his stocking feet and he is able to light the gas with his finger." That is just as good proof that the climate is exhilarating as it is that the body is filled up with electricity. Whatever electricity is generated for the moment disappears at once; so there is no such thing as getting too full of electricity. Not very recently, but within the last twenty-five years, I have met a good many cases in which patients thought they had got too much electricity. One patient said, "Doctor, you know I have too much electricity anyhow. Why, in cold weather, I often find sparks slipping off me when I walk around the house, or go to light the gas, I see a spark because my body is so full of electricity, and I don't need to take electricity; I have got enough already, so be sure you



don't give me any electricity." Of course, it was all a wrong understanding of what electricity is. When you are under static electricity you are under the influence of the static charge just for the moment, but the moment you leave it, it is gone. The effect is left behind, but not the electricity.

Q. I would like to know if Seidlitz powders are injurious to the stomach, and if so whether it is the best thing to take?

A. Here is somebody else wants to know how to raise the wind of the stomach. Now, Seidlitz powder is unquestionably injurious when it is used day after day for a long time, because it neutralizes the acids of the stomach to an extensive degree. If a person suffers from acidity in the stomach and gas in the stomach it is possible a small dose of Seidlitz powder might be a good thing to afford relief, but it would produce more gas for a moment. I think I must stop a moment right here and explain this matter of gas on the stomach. Suppose this is the stomach. Here is the pylorus at this point, Here is the cardiac orifice--this muscle here. The food comes down into the stomach, and the acid that is formed in the stomach by and by stimulates the pyloric gland to open and ~~as~~ as soon as the acid gets through on the other side, then the effect of it on the opposite side is to cause it to close. It gets over on the other side and it comes in contact with the bile and the pancreatic juice which come from here, and these neutralize the acid. Now, after it gets through on the other side, the acid is neutralized by the alkali, so the pylorus closes. Now, when the stomach becomes extremely acid, it sometimes stimulates a contraction; the action is the reverse of what it normally is; the pylorus is stimulated so that it shuts up tight and keeps shut; then the more acid it gets, the stronger is the spasm here. Now, in such a case as that, there is always gas in the stomach; the gas can not pass out in the usual way down into the intestines to be absorbed as it ought to be. It should pass along and become

absorbed. It is carbonic acid gas, and it should be absorbed and carried off; but instead of this happening, it remains here in the stomach, and the stomach contracts more and more violently as the acid increases by and by some gas is forced upward, not being able to find its way downward it must go somewhere, and as the stomach contracts, it breaks upward into the mouth. Now, this is not wind that has blown down into your stomach; it is simply carbonic acid gas that has been excreted from the blood, probably; or it may have been formed by fermentation and passed up into the stomach. Now, when hot water is taken, especially hot water with a little soda, in it, it has the effect to relax the sphincter muscle here and allow the stomach contents and the gas to pass along down. Now, this is due not only to the heat of the water, but to the fact that the water dilutes the acid, lessens the acidity, while the alkali neutralizes it. The gas, you see, is not formed by fermentation at all. It is the result of the imprisonment from the contraction of the pylorus.

Q. Are charcoal tablets a good thing to take for a person troubled with apepsia and gastritis?

A. When there is a state of intestinal autointoxication, the charcoal is a very good remedy sometimes. Prof. Bouchard found charcoal would diminish the toxicity of the intestinal contents. The charcoal tablets which are spoken of here contain a little sulphur, and this is a good intestinal antiseptic-- charcoal and sulphur combined, I think would be about as good as anything I know of, better than any of the more powerful intestinal antiseptics.

Q. I would like to know if malt honey does not ferment and cause gases in the stomach, or whether it is good for a person troubled with gastritis.

A. A person troubled with gas after the use of malt honey is not suffering from fermentation; it is not the result of fermentation; it is because

the malt honey is a peptogen and stimulates the stomach to make acid gastric juice, to make an increased quantity of juice. The gastric glands are stimulated by the sugar and dextrin in the malt honey. It is a powerful peptogen, so it is not the fermentation at all, but the peptogenic effect. Now, you have more peptogenic effect than you want. What you want is the nutriment in the honey, and you don't need more peptogenic effects when the stomach is already making as much gastric juice as you need; so the thing to do is to use with the malt honey something which will prevent, which will antidote, so to speak, its peptogenic effect, and butter or thick cream is the thing to do it; butter or cream will do it. Fat has the effect to lessen the gastric activity of the stomach, the glandular activity of the stomach; it lessens the formation of gastric juice; so if you combine with malt honey the fats, as butter or cream, then it may be tolerated readily without any difficulty.

Q. Will taking a teaspoonful of apple-juice from a glass and pouring it back from a height of five or six inches, causing a few small bubbles to appear--does this indicate the aeration of the apple-juice, and would it occur in treating water in the same manner, or does it indicate simply alcoholic fermentation?

A. It is simply that a little air has been tangled up while it was passing through the air; some of the air adheres to the surface of the fine stream as it passes down into the liquid, and the air is carried down with it. That is what the bubbles mean.

Q. What is the comparative value of a glass of yogurt and a small square of yogurt cheese regularly served here?

A. The value is about half that of butter of the same size. If it is not put down on the bill of fare it should be. We will have that looked up and have it reported.

Q. Where one can obtain nothing but limestone water, is it well to drink freely of it between meals?

A. Personally, I am not at all sure that any very great harm comes from the drinking of hard water. The water is nearly always hard. There are only a very few places in the United States where you can find water that is really soft. There is always a little sulphate of lime or carbonate of lime in the water, because it passes through the soil, and you always find more or less lime in the soil. There are just a very few limestone or sandstone regions where the water contains almost no lime at all. I am not certain there is any disease that has been traced to the use of moderately hard water, or even quite hard water. If there is, I confess I don't feel sure as to what it is. I don't think it has ever been absolutely proven that there is any disease that has ever been traced directly to the use of hard water. The fact is, water takes up such a small amount of lime, that when it is taken into the body the portion that is in solution can pass right on in solution out of the body. If it remains in solution in the water, when you swallow it there is no reason why it should not continue in solution, because in the acids of the stomach, and the substances which come in contact with the body, the solubility is increased instead of being diminished. Nevertheless, it perhaps is a good plan, when one lives in a hard water region, to take a good supply of water night and morning, water that has been boiled. The process of boiling will cause the precipitation of the lime. Some people in limestone regions put oyster shells or something of that sort, or a piece of metal, in the teakettle, and the lime precipitates on it, accumulates about it. It is a good plan to do that, because it will accumulate then around these masses, which will be taken out, instead of accumulating on the sides of the kettle, and it won't do so much harm, and the kettle does not get the incrustation which destroys its efficiency. I think that is a very good

plan, and it is a good way to drink when you have opportunity. Lay in a store of water as the camel does in the desert. In the morning before breakfast a couple of glasses of water. Take a drink of water at any time when you have opportunity to drink water that is pure, that has been boiled; take a good supply, and then you wan't need so much when you find yourself away from home.

Q. What will happen to the Sanitarium if Judge Parkinson renders judgment of ouster?

A. I assure you you don't need to feel the least bit alarmed. If the Judge ousts this ~~corporation~~ institution out of one corporation, it will go into another corporation right away. These legal proceedings that are going on haven't a thing to do with the work of the institution. The institution as an institution goes right on. The work of this institution is not based and does not depend at all on a corporation. This institution was founded upon an instrument of trust. There were people who got together, a certain number of people, and these people made donations of money, and they accompanied their donation with what is known as an instrument of gift, or an instrument of trust, and this instrument of trust instructed the persons who were appointed by the instrument of trust what to do with it; and it was a very careful statement of all the things that ought to be done. When you read in the papers about the unlawful things that have been done up here in the institution, there isn't a thing,--I wish to say with reference to that, that never a single thing has ever been shown that was done at this institution which we were not instructed to do by the makers of that instrument of trust. It is wholly a technical question as to whether the particular statute under which the institution is incorporated was exactly adapted to the particular things we wanted to do. For instance, we have got a training-school for nurses down here, and it is a question whether we

can, under that particular statute,--whether we are technically entitled to do that; whether we are authorized to carry on the training-school for nurses. We are sending out every year to Chautauquas ~~xxxxx~~ a lecturer who goes out and lectures at Chautauquas on questions~~x~~ of health, how to keep well; and the question has been raised whether we are allowed to do that. That is not curing sick people. Of course, we are going a little bit ~~an xxx xxx~~ beyond our province, because we are trying to keep people well as well as to help people who are sick to get well; and the question has been raised whether we are not going beyond the province of the statute in doing that. All the questions that have been raised are simply these technical questions that are really entirely ridiculous from an ethical and moral standpoint, and from an every-day common sense standpoint they are entirely ridiculous; and they never would have been raised at all except that there are certain hostile influences in this town, some of them that are not in this end of the town, but are in a more remote portion of the town, that are continually inspiring these things for the purpose of troubling and annoying the management; but we are not annoyed, because the management are very anxious to go through with this battle and to go to the very end of it, because we are still young; at least, we feel pretty young, and we want to know that everything that is possible to be done to this institution has been done. We want men who are opposed to the things we are trying to do here, that don't believe in these principles, that don't believe in the work we are trying to do,--we want the worst of them to come right along, and we welcome them to come and attack us, and do the worst things they can possibly do to us, because when we have got through, we will know where we are, don't you see? When we have gone through the battle and found ourselves still here, we will know where we are, and that we are established, and we can feel when we have

gone through that, that we can tide over any opposition whatever, because we will feel that the thing is on a good, sound basis. So, personally, I welcome these battles very heartily, and enjoy them very much, because I know that when we get through, whatever is right will be. I trust in Providence, that whatever he wants me to do I will have a chance to do, and I don't want to do anything else. I would not for the world be engaged in doing anything that I didn't think that Providence wanted me to do. For I haven't any other purpose in living than to do what I can to help along the cause of truth and the things that are good and true, and that the world needs, and the cause of my fellow men. That is the only thing I have to live for, and whatever I have a chance to do, I am anxious to do; and if I find my way hedged up, I know that is not the way for me to go; that there is another way I must go, and I must look for that other way; and I have always found there was another way and a better way; so, as I said before, whatever happens to us in this thing will be all right; but so far as I can judge, there is no action likely to be taken against the institution here that is likely to hamper its activities in any way. The judgment of ouster would not mean the ousting of the institution or the ousting of the sick people here; it would not mean you are all going to be thrown out into the snow; it wouldn't mean even the ousting of the work of the institution in any way at all. It is the ousting of the corporation, and the corporation, ~~as~~ one jurist stated, is only a legal figment; it is an abstraction. The instrument of trust said that we must do certain things, and we are doing exactly what the the donors that established this institution, what they instructed us to do. Now, these donors stated that if it is found expedient, these trustees which had this money, should take it, and may incorporate the institution and carry it on as a body corporate; ~~but~~ if they didn't think best to do it, they didn't have to incorporate. So

if the court says we can not be incorporated, and ousts the corporation, we will simply go right along without the corporation; that is all. The corporation is not essential to the life of this institution. There are some reasons why it is convenient to have a corporation; it is a convenience, a convenient way of doing business; but we can get along without it. The corporation was adopted simply because it was expedient, but, as I said before, if they oust the corporation, that does not mean disuse of the property; they can not divert the property to anything else; it must be used for this purpose, and can not be used for any other thing; because there is an instrument of trust behind it, that controls it. I make this explanation so you will all be able to sleep tonight and won't be worried for fear of being turned out into the snow tomorrow.

Q. Is the oil used in massage absorbed by scars left by deep burns?

A. Only to a very small degree; there is a very superficial absorption, but it is very slight indeed.

Q. Is iodine applied externally a rational treatment for arteriosclerosis?

A. No, it amounts to absolutely nothing; it amounts to nothing at all.

Q. Have you any pellagra up here, and what is it due to?

A. Well, this is a pertinent question just at the present time.

The general opinion about pellagra is that it is due to corn which has somehow undergone some kind of fermentation, some sort of fungus growth in connection with the corn, that is is mouldy corn. But this is not true. Some people have been found to have pellagra that did not eat corn. It seems to be a somewhat unsettled question yet. As to whether we have it here--we have had one case here in this institution, but this case was imported. The lady came from South Carolina; so we haven't had any case that originated here. We had one case last summer of a lady suffering from pellagra, that had the characteristic



symptoms of the disease. The disease I believe is curable. I know it is curable, because forty or fifty per cent of the people get well anyhow without any treatment at all,-- a certain percentage; so we know it is curable. At the present time, it is very much in the same condition that leprosy was some years ago. I remember very well twenty years ago nobody thought leprosy was curable; it was supposed to be absolutely incurable; but now leprosy is known to be a disease that is curable; it is known to be almost if not quite as curable as tuberculosis is. Why, it is less than a quarter of a century since tuberculosis was considered to be almost absolutely an incurable disease. A person who recovered from tuberculosis was an object of great remark, considered a most remarkable thing; but at the present time we know that sixty per cent of all people who have tuberculosis, if we take it in time, are curable; probably a much larger proportion if it is taken at the very earliest stage of the disease.

Q. What effect has smoking on the heart?

A. Smoking paralyzes the heart. Nicotin is recognized as a heart poison. That is the particular thing which tobacco does--it paralyzes the heart. I think a statement was made some time ago that nine tenths of all the people who were rejected by the recruiting officers were rejected on the ground of 'weak heart from smoking. A man who is a professional runner never smokes, or if he does once in a while smoke, he never will smoke when he is in training. Did you ever see a man try to run with a cigar in his mouth? If a man finds himself left a little behind time, if he has to hurry to catch a train and he has a cigar in his mouth, did you ever see him run with the cigar in his mouth? That ~~simply~~ cigar gets out of his mouth in a hurry when he has got to run to catch a train. A man can not run while smoking; it is absolutely impossible

*Tobacco*

to run under those circumstances, because tobacco weakens the heart, and weakens it right away; and not only the heart, but every muscle of the body. Prof. Lombard, of the University of Michigan, experimented for three years with nicotine at the University of Michigan, and he found it was a direct muscle poison every time, whether animal or man, the muscular power was greatly weakened, and the power of exertion was very greatly diminished; yet still he smokes. I labored with him the last time I saw him about it. "Well," he said, "of course, I know smoking hurts me; I know smoking hurts me, but I smoke because I like it. I think I would rather smoke and die sooner than not smoke and live longer." Now, I think that depends altogether on what a man's life is worth. If a man's principal occupation is smoking, if that is his principal pursuit in life, and his principle pleasure and satisfaction, that he gets out of life--if it is what he can suck through a cigar--if that is a man's situation, of course the more he smokes the better.

Q. Do you believe there is any virtue in psychotherapeutics? In Christian Science, in Mental healing by suggestion? If not, why not?

A. Well, there is enormous virtue in psychotherapeutics; there isn't any question about that. A man can make himself sick or make himself well under many conditions, through the influence of the mind. There isn't any doubt about it. Why, the story is told of a man down in St. Louis who heard the cholera was coming, and he got some cholera medicine, and he said to his wife, "Now, Sarah, I want you to have that cholera mixture that we have got in the house, taken down out of the medicine box, and have it right on the stand, right close by the bed, because if I should have an attack of cholera in the night, I want to be able to get access to it right away quick." Well, he had a pain in his stomach, and he woke up in the middle of the night with a pain in his stomach, and he shook his wife and said, "I have got it; it has struck

me; give me the cholera medicine, quick." She reached out and got the bottle, brought it to him, and he opened the bottle immediately without stopping to get a light he was in such a hurry, and he took one big draft out of the bottle, then took another one, felt better, and went right off to sleep. The next morning you can imagine how he and his wife both felt when they looked around and found he had gotten into the ink bottle by mistake instead of the cholera medicine; but it cured him just the same. Now, I heard a few years ago of a couple of men who were stopping at a hotel down east,--an old doctor used to tell this story in making fun of the fresh air cranks, as he called them-- people who thought they had to have a whole hurricane of air in order to get fresh air enough to breathe. He said there were a couple of men stopping in a hotel, and one of them woke up in the night with an attack of asthma. He was subject to these attacks, and he begged his friend to rise and open a window quick, because he knew he should smother to death right away quick. So his friend crept around in the dark to find the window, and at last he thought he had found the window, but he could not get it up; it was fastened down; and the friend, who was gasping his last gasp, shouted to him to break out a light. So he broke out a light of glass, and he felt better, but not quite relieved. So he begged him to break out another, and he smashed another one; then he was quite relieved and went right to sleep. The next morning they looked around to see what size bill they would have to pay for breaking the window, and they were astonished to discover that they had broken a bookcase; yet he was quite relieved. Now, I can imagine that is true. I remember one time seeing some people in church--a large number of people just smothering because the air was so bad, and somebody went up and opened a window and they all felt better; the fans all

went down and they were all happy; but I happened to know that that window wasn't doing any ventilating at all; that the air was going out of the window instead of coming in, and I insisted on having that window shut and a window opened in another place that would make a draft, because with that window open up in the gallery, the air was going out; all the impure air from the house was going up through there, and we had nothing in the world but impure air to breathe.. I proposed a different way of adjusting the matter, and I went up to adjust the window, and I found so many angry looks coming my way that I was compelled to do something; so I pulled my handkerchief out of my pocket and held it up to the window to let everybody see that my handkerchief was floating out, before they began to realize that they were not being at all relieved; and the majority were not convinced then. There were at least 300 or 400 people there who felt it was a wrong thing to have that window closed. Yet they were getting the worst kind of air, and the more the window was open ~~wax~~ the worse the air they got, because it simply brought the foul air from below, so they were continually deceived. I am subject to such deception myself. Last summer I passed by the coil in my office--the coil had not had any heat on it for three months, and I passed by that coil and my hand just happened to touch it and I felt it burn as much as I ever did in my life, you know--the coil was hot; I was sure it was; I felt it burn ~~me; ya~~ as I touched it. I approached the coil very carefully; I was not at all sure I was mistaken until I had finally got my hand upon it. I was simply fooled. I remember several times in my life in which I have passed by a stove and felt a wave of heat from it in summer, when there had not been any heat in it at all, and I wondered who had been putting a fire in it, and I opened up the stove and looked in to see that there was not a particle of fire there. Now, we are all more or less victims all the while of our feelings, of our nerves, of our imaginations. And this imagination has a powerful

influence working for good or for ill. I remember just at this moment a man who came here thirty-two or thirty-three years ago--thirty-three years ago this winter, or thirty-three years ago last fall he came, and he was so far gone with consumption--we had patients of that class at that time; of course we don't receive them now,--but he was a poor clergyman that came here in a very emaciated state and in a sad way--a large cavity in his chest, coughing, expectorating quantities of lung tissue, and his pulse very weak, feeble, and rapid, temperature  $103\frac{1}{2}^{\circ}$ , very, very short of breath; and I said to him, "I am afraid you are pretty sick, my friend; I don't know whether we can help you or not." "Well," he said, "never mine, never mine; I have come here to get well." The next morning I told his wife we could not cure him at all, and she must take him home right away. He came around to me the next morning and said, "Look here, Doctor, what have you been saying to my wife? I want to say to you you are not to talk in that kind of way to her. My wife has all she can stand now. I want you to just simply give me a chance. I came here to get well, and I am going to get well, and I am not going home; I am not going to permit you to drive me off, for I came here to get well, and I am going to stay right here, and I am going to get well." That man got well in spite of me. He stayed here, and he said, "You just tell me what to do; that is all I want of you. Tell me what to do." I said to him, "Stand up here and get your chest out, and take deepbreaths." I showed him how to breathe; he was very round shouldered; so he set himself up, got a cane and put it in front of his elbows behind his back, pinioned himself, and he walked around that way all day long. You could see that man walking up and down the sidewalk out here, marching like a soldier, up and down there, hour after hour; and in three months he was another man--roses on his cheeks; pulse 70 instead of 120; his temperature was normal; he

was no longer expectorating fragments of lungs, and he was able to go down town and preach sermons. He was a Presbyterian clergyman, and he went down here and preached sermons in the church down here; and he went home, and for years and years and years and years I used to hear from him, and he used always to sign himself, George Thompkins, E. C. The first time he wrote it he put on a footnote saying E. C. meant ex-consumptive, and that was always intended as a hit at me because he got well inspite of me. It was that man's grit that cured him. There isn't any doubt about it. The reason why psychotheraptu-tice, and Christian Science, and these other suggestive methods are so success-ful is because there are such a large number of people who are not really so very sick, who are not hopelessly ill, but who have surrendered, surrendered, just simply lain down and allowed disease to trample upon them, to trample them under foot; to put its foot right upon their necks, so to speak, and crush them down into the earth. Now, those people are persuaded to arise and assert themselves, to say, "I will be well; I will not surrender to disease; I will not submit to this thing." It changes the whole aspect of the case. It sets the will at work on the healing situation instead of being at work on the side of the disease. There is no question that there is a great deal in it, yet it sometimes does harm as well as good. I mean, when I say a great deal in it, I do not mean in philosophy. The philosophy of Christian Science is the most ridiculous thing imaginable; I mean to say part of it; there are some good things in it. When Christian Science says God is the great Father, that is a splen-did truth, a great truth that we all can understand and appreciate, and every-body ought to know it; and many people who didn't know it have been made to know it through Christian Science, and have been helped in that way; there isn't any doubt about it. When Christian Science says there is a great healing force abroad in the universe, a great healing power, that is true too; but when the

Christian Scientist goes farther and says there is a great healing power and I have got it, and I can work it ~~xxx~~ at a dollar a piece, or five dollars apiece,-- that is another thing altogether. That is really the cloven hoof, and that is where it comes in, you see. There is this great healing power abroad in the universe, you see; and that great healing power is just as free as the air, as the sunshine; you don't have to solicit it to get it to work. That is the thing about it. The Christian Scientist says "if you want to get this healing power to work, you must pay me five dollars and I will sit down here and think at so much a think for you, in your behalf; I will focus my great, powerful mind upon you, and it will heal you." That is all hocus pocus. There is nothing in it, absolutely nothing in it. I have tested it and I know it. I have tested it in a good many different ways. I tell you what I did once. I had a poor girl come here, a girl about fourteen years old, and she had a diseased eye; this eye was hopelessly diseased, had gone out, in fact; there was no sight in it at all, and it was destroying the other eye; so to save this eye, I had to take the other eye out. This was years ago, before Dr. Byington was here, so I was doing that sort of operations. I don't do them any more; I turn them over to Dr. Byington. I don't like to do those things any way; I don't like to cut things off. I always hated to do that sort of operation, and felt bad about it, but I said to myself, "Now, here is a good chance for Christian Science. This girl has lost her eye. Now, here is a fine chance make a new eye for her, and I am going to give them a chance." So with the young lady's consent,--she was a girl about fifteen, a very bright little girl,--with her consent, I wrote a letter to all the Christian Scientists whose addresses I could obtain,--perhaps fifty,--there are more than that now; there were not so many twenty-five or thirty years ago,--all of those who were practicing healing whose addresses I could get, I wrote a letter which

was in substance this: I wrote it in the little girl's name; got her permission to use her name, had her name signed to it. "I am a poor girl; I have lost the sight of one eye. Can you cure me?" Now, just as quick as the letters could come back, there came letters from every one of them, saying, "Yes, we can cure you." One was willing to do it for three dollars a week, another for five dollars, a week; another for ten dollars a week, and another for fifteen dollars a week. They were all ready to cure her by absent treatment. They didn't ask whether there was any ~~ix~~ eye there or not, you know,--didn't make any inquiry about it, but they would cure her. Then there went another letter saying, "I am a very poor girl", which was very true; I did the operation gratis,--"I am a very poor girl, and this is going to be such an embarrassment to me, can't you cure me and let me pay you when I get well?" There were just two replies to that letter--just two. One of them was from a girl who had never had a case yet and was just beginning, and she was willing to take her to practice on. She was a young student. And the other was willing to take her if she would pay half down, \$2.50 a week, and pay the rest when she got well. Now, my friends, that was a sufficient test to me; it was all the test I wanted to know the character of that thing. If that thing was God Almighty working through these people; if it was the Christ spirit that was working in those people, they would not have turned the poor girl away in that kind of a way. I made a proposition once to a Christian Science convention; they had a convention down in Chicago years ago, and I made this proposition to them: "Now, you believe in absent treatment; you say you are able to cure by absent treatment; but in Chicago you have collected here all the forces of Christian Science; your forces of the country are all gathered here, and the great, powerful healers are all here. Now, suppose, while you are here, you do something that will demonstrate your power; that will do some good at once. Just, without asking any questions at all, without



making any charge, just cure up all the sick people in Chicago; just make a shining example to the whole world of what you can do; cure up all the sick folks here in this one town. For there was a Healer that you profess to be disciples of, to be practicing in the same way; he did that one time--went about doing good, and it was said when he left the little town of Capernaum, when he went out of the gates of that city, it was said, "and he healed all their sick." That is a wonderful record. Now, while you are in Chicago, suppose you leave that kind of record behind. What a splendid thing it would be to demonstrate to the world the validity of your mission in that way." I didn't get any favorable response to it, but I heard of a case of a man who was being treated over in Evanston at that time--his brother told me about it,--the poor man had rheumatism, he was sick and had some Christian Science friends who wanted him to take treatment of Christian Scientists over at Chicago, in the city. And he declined to drop his doctor; so his zealous Christian Science friend went over and got the Christian Science doctor to treat him any way. The next day he began to vomit, and vomited terribly, and it was reported to the Christian Science doctor, and the Christian Science doctor said, "The trouble is my medicine don't agree with what the other doctors are giving him. You will have to stop that other doctor's medicine, or else ~~ixwik~~ he will die." I believe the Christian Science treatment was stopped, and the man got well any way. I have had any number of patients, cases,--I say any number,--a considerable number I remember, in which patients have come here to the Sanitarium and found to be, from my standpoint, hopeless cases, and I have said, "We can do no more; we will do nothing for this patient." I have seen these patients go away and go under the the Christian Scientists who said, "We can cure you." They have come right into this town and taken cases, prominent people too, and said, "We can cure you";

and would begin operations, and in two or three weeks the patient was dead. They died just the same. I have not a single case that I know of, that I remember of, not a single case in which the reverse has happened; but I remember very well a lady who came here who had been treated in Kansas City by a Christian Scientist, who had internal cancer, and was suffering terrible hemorrhages in consequence of it, and the Christian Scientists had been treating her for several weeks, and assuring her all the time that she was well, that there was no such thing as disease; that it was impossible for her to have disease, because the disease did not exist. This is the philosophy of Christian Science. You think you have got toothache. My friend, you are entirely in error about it; you can't have toothache, because there is no such thing as toothache; because toothache is a disease, and there can not be any such thing as disease. The good God made all things good; disease is evil, an evil thing; a good God could not make an evil thing; so there is no evil thing. So you see you haven't any toothache, and you haven't any teeth to ache; so it is impossible for you to have any toothache, for there is no such thing as a material tooth. A tooth is nothing but an idea, and your toothache is simply a morbid idea that has gotten possession of you, and all you have to do is to cast that idea out, and you will have no more trouble with that tooth. What I am saying is no ridicule of Christian Science; that is what they continually and positively preach. I have Mrs. Eddy's books in my library; I have gone through her books to see what there was there, and every word I have said to you I can read right out of Mrs. Eddy's books. That is her philosophy. There is another thing in Christian Science that I think is pernicious. They hold this doctrine. It has not been very conspicuous, but if you have read the life of Mrs. Eddy and have kept a little track of the capers which have been going on down there in New York in relation to a certain Mrs. Stetson recently, you have observed what I am going to tell you,--that this power~~ink~~ of the mind is equally

strong for good or for evil. They believe in absent treatment by a healer who is supposed to be a person that is a strong minded man, who can heal you by casting his thoughts in your direction through a sort of wireless method, and can effect a healing influence upon him. But they believe also that they can do the very opposite; that this person with such a powerful mind can cast ~~at~~ disease upon a person as well as to influence them for health. Now, that is witchcraft. What is it but witchcraft. It is simply a modern era of witchcraft. It is simply in a new guise, nothing else--nothing but witchcraft. I had a practical illustration of it not so very long ago. A young man had been working here in the institution, a bright young fellow, a very intelligent looking boy, I think about eighteen years old, and he caught me as I came into the door one morning, He was looking very pale, and I was surprised, because his cheeks were usually very rosy, but this morning he was very pale, looked anxious, and haggard. He said, "Doctor, I must see you a moment right away." I said, "I am in quite a hurry now, can't you see me later?" He said, "I must see you a moment; it is very important; I must see you." I said, "Come right into my office, then." The boy came in, and he said, "Doctor, Oh, Doctor, it is terrible, I hate to tell you about it; I must tell you about it. Doctor, I am afraid my mother is going to be killed. It is terrible, Doctor, it is something terrible." "Well," I said, "Tell me about it; unburden your mind, and I will do anything I can to help you. What is it?" He said, "Doctor, there is a man in this town that is trying to kill my mother; he is going to take her life, and I don't know what to do to help it." I said, "Why, it must be helped in some way. If you know about it, of course you are fore-warned, and you must put a guard about her so he can't get near her. Have him arrested." He said, "I can't do it, I can't do it." "Now, what is it about?" "Well," he said, "I will tell you. There is a man down town--" "Now who is he? Who is he? I will get right

after him," I said. "Well, he is one of the leading business men of the town." I won't go so far as to mention his name, but he mentioned his name to me, and he is one of the leading business ~~of the~~ men ~~of~~ the town, in the city here. He said, "That man is trying to kill my mother." I said, "Why should he want to kill your mother? What has your mother done?" "Why, she never did anything at all, but then he killed two women before; he killed both his wives, first one, then another, and my mother knows about it, and he wants to kill her so she won't tell about it, you see; and he is trying to kill her." "Well," I said, for pity's sake, that is terrible; how did you know it?" "Well," he said, "because he told her so." "Told your mother he killed his ~~first~~ two wives?" "Yes, he told her so." "Well," I said, "that is certainly terrible. How did he come to tell her? He ought to have known better." "Well, but he did tell her." I said, "You say he is trying to kill her? How?" "He is trying to strangle her; that is the way he killed the other two women--~~he~~ strangled both of them, and he is trying to strangle my mother." I said, "Well, just see that he doesn't get anywhere's near her; that is all, and have her watched." He said, "It doesn't do any good; we can not help it." I said, "Well, how is it? When did he tell your mother all these things? What made your mother see him? What makes her have anything to do with him?" "Well, she never did see him." "She never saw him? How in the world did he tell her, then?" "Why," he said, "he told her by wireless, you know; he told her by telepathy." "Well," I said, "You say he is trying to kill her? How is that?" "Well, he is trying to strangle her by telepathy, you see. Why, in the middle of the night she wakes up there, and she is just choking, he is just choking her to death, and she is scared to death, and we are all scared." That poor boy was nearly scared to death. He believed that a man down town was telegraphing strangulation to his mother in the night. I don't think he ever saw the man

himself, and his mother never saw the man, but knew his name, and there was absolutely no connection at all. She had been reading Christian Science literature, and she had gotten it into her head that there was a means by which people could, telephthically, by absent methods, by looking throughspace, that they could do such things. It is perfectly monstrous, preposterous, and it is a wonder that there could be found in an intelligent country like this, anybody who would support such a cult or professed philosophy; it is more than I can understand; but it is nevertheless true that hundreds, and we might say not only hundreds but thousands, many thousands of people have been ensnared by it; and I think the reason why they are ensnared is because there are some things that are beautiful in it. The fatherhood of God, the universal love and sympathy--that is very attractive, and it is all true, it is all true; but when we come to these other foolish and whimsical things, there is mischief. About healing by suggestion,--well, there is something in that; there is no doubt about that; but there is mischief in it too. People can sometimes be wheedled out of ~~their~~ their symptoms. Suppose here comes a man with a coated tongue, headache, and depression of spirits. You can lay hold of that man and wheedle him out of his depression and get him to feeling better and brighter; but he has got that bad taste in his mouth just the same; you can not wheedle him out of that by any kind of suggestion; and you can not get rid of the coat on his tongue by any sort of suggestion. He has got to get rid of his autointoxication, or he will never stay cured. You may be able to cure him up by suggestion for a few months, or a day or two; but you can not keep him cured, because his morbid state is the result, not of a bad state of mind, but the result of wrong habits of living, wrong eating and drinking, and wrong conditions of life; and the bad state of mind is one of the symptoms, one of the results of those wrong habits of life. Now, we must correct his habits, his habits of eating as well as his habits of thinking. If we cor-

rect his habits of eating it will go a long way toward correcting this morbid state of mind too. I was down to Boston some time ago and I thought I would investigate that Emmanuel movement down there somewhat. I have been looking into it, keeping watch of it since it started, and I went to the church to see what was going on, on Wednesday evening,--stayed over on purpose to visit the place. I found a nice large audience of six hundred people, and one of the two high priests of that movement was there; and I noticed one thing a little peculiar about the audience--there was practically only one section represented there--they were nearly all women. I stood near the door as they went out to take a sort of census of them, and I found there was about one man to twenty women in the audience. I noticed most of these women were going up stairs somewhere, but I didn't see a single man going up. I said, "I am a doctor, and I am a sort of privileged character; I think I will go along to see what those women are going to do up there." So I went along, and I saw two men, only two men up there, and two or three hundred women. This was a social room, I discovered. By and by the two high priests of the movement came out and planted themselves in the room, one about one quarter the distance from one end of the room to the other; and the other one quarter of the distance from the other end of the room; and the moment they planted themselves here, they were completely surrounded by women who looked up into their faces expectantly, getting hold of their hands, seeking some little word, suggestion or comfort or something,--wanted to get into the presence of these people, to get in contact with them. And I began to see what this thing was. This thing is very necessary in Boston. I used to read when I was a boy something that used to puzzle me--a text about nursing fathers and mothers in Israel. I understood about the nursing mothers, but nursing fathers I could not quite understand; but I saw it then, and Boston seemed to be the place where it was necessary. There is

a scarcity of men down there in that vicinity. I don't think it ever originated anywhere but there in Boston. I found a man there who was learning how to do it, and I asked him a few questions. Among other questions I asked him--this is rather ridiculous, but I am going to tell you it because you have asked me a question about this thing. I was there investigating, and I am simply making my report to you. I said to this young man, "You have been here some time, some three or four months?" "Yes," he said. "Well," I said, "what are the results? Are they good?" "Oh, wonderful, Doctor, wonderful." I said, "I would like to ask a question. Suppose you have a man here that is depressed in mind, who can't sleep, has insomnia and has a very badly coated tongue, and his bowels are very inactive--that is the reason why he can't sleep, because of the absorption of poison"--I didn't tell him I was a doctor, and I was very careful for once not to use the word "autointoxication." I'm pretty nearly stumbled three or four times; it almost slipped out, but I kept it back for fear he would suspect I was a doctor. So you can see how humiliated I felt when he said, "Oh, that is a person suffering from autointoxication; of course, it is necessary to have something done for him." I said, "But you can put a man to sleep, can you?" "Yes, oh, yes." "Well, now how do you do it?" He said, "Of course, we could not cure him permanently, but we could put him to sleep." "How would you do it." "Well, we would have him sit down in an easy chair, close his eyes, and say, 'now, you are going to sleep, going to sleep; yes, you are going to sleep; you look sleepy already; yes, your eyes are getting drowsy; let your mind be quiet; now be calm; don't try to think anything--there you go--going off now--there you are, now you are fast asleep, fast asleep; sleep on, pleasant dreams.'" "Now," I said, "will it happen so?" "Oh, yes." "Now, then" I said, "suppose you have got a man right at that stage and he should

open his eyes, and he was not asleep at all; then you have been lying to him. Doesn't that make you uncomfortable? What do you think about it? You don't absolutely know he is going to sleep; yet you tell him he is going, and sometimes he doesn't go to sleep and you have lied to him, and you are a preacher and lying like that. I don't see how you can reconcile that with your profession." "Well," he said, "you know we don't often get caught that way; we kind of know." "How do you know when a man is going to sleep?" "Well, we feel it, don't you know; we know it." "Well," I said, suppose the man has this inactive state of the bowels and that is the reason he can't sleep. Can you cure that by suggestion?" "Oh, yes, oh, yes, we cure that." "Permanently?" "Oh, yes. Why", he said, "Dr. -----" I won't mention his name; it is the high priest, the highest priest of that cult, he said, "The Doctor had a lady come to him one day and her bowels had not moved for years, naturally; and he suggested that her bowels should move three times a day, and her bowels got to moving so much that she had to come back to have it stopped." I said, "Did he stop it?" He said, "Yes, he suggested to her again, and she was all right." Well, you know I would not speak so broadly if this were not strictly a medical audience, and I didn't inquire into the matter any further, but it seems to me that the thing itself, and the way in which it is being carried on is likely to do harm, to do mischief. It is a splendid good thing to <sup>aid</sup> ~~take~~ the sick man, to help him to brush away the clouds, to see the sunshine on the other side, and to help him to trust and have faith and hope and confidence in a great healing power that is open to him, working for him, and going to do everything that can be done for him; it is a splendid thing. But to take a man that has got cancer perhaps eating into his very vitals and tell that man as the Christian Scientists do, "You have nothing the matter with you; you can not have such a thing as cancer"; then let that cancer go on eating, eating, eating, until



it destroys his life should not be tolerated. I have seen that a dozen times at least. I began to tell you a little while ago of a woman who came here with an internal cancer who had been treated for months by Christian Scientists, suffered from internal hemorrhages, and she died two or three days after she got here; they were telling her she was going to be well, but it was too late to save her life when she got here; she was too weak to have any kind of an operation; her blood was all gone, and there was nothing to do but simply to carry her home again in a coffin. I remember a lady who went from this town, a lady who had cancer of the breast, a little bit of a lump about as big as the end of your thumb; but she didn't want an operation, and she went down to Chicago to a Christian Scientist, and the Christian Scientist said, "Oh, that is easily cured, oh, yes; just put your mind away from it; just say every little while, 'I am not sick; I can not be sick; there is no such thing as sickness; there can not be; and telleverybody you are well.'" And she went on for three months, and her daughter who was there with her saw that cancer getting bigger, bigger, and bigger, and at the end of three months brought her home, and it was found out that the cancer had already got its roots away down so deep there was nothing in the world to be done for it; and in a few months more she was dead. There is the evil and the mischief in it. The attention is directed from the correction of the habits of living, and the attention is directed away from the cause of sickness, and the patient is led to believe the disease is due to the pernicious influence of the mind, when nine tenths of the time it is the other way; it is the pernicious influence of the body upon the brain, and upon the mind that produces these morbid states. But, as I say, all of the attention is focussed upon the mind, and that is looked upon as the root of all the evil, the cause of all disease; then an enormous amount of mischief will be done when

the Christian Scientist undertakes to cure diphtheria, or undertakes to exorcise the germs of disease; that is a very great mistake.

Q. Are the hulls of green peas, and string beans, and lima beans indigestible?

A. Yes, they are entirely indigestible.

Q. It has been said that one can not stand getting more than one fifth of protein needed in one day from peas. Is this so, and does protein from peas differ from protein from other sources?

A. No, it is not necessarily so. The amount of purin in peas is extremely small, so very small it has no particular relation to health, in my opinion. The trouble with meat, I may say, is not the uric acid in it after all. It is the protein that decays in the intestine, the poisons that are formed in the body that makes the mischief which has been attributed to the uric acid. Dr. Haig is wrong about that, in my opinion, and many others are wrong. The evils arising from the use of meat are not due at all to the uric acid in meat, the principal evils, but the decay which takes place in the intestine of the surplus meat that is eaten, and the poisons which are absorbed into the ~~body~~ body in consequence.

Q. Do not many aurists advise against the use of oil in the ear by the laity?

A. I don't know about that. Be sure the ear is dry, and a little oil put into the ear is perfectly harmless. A nurse or any intelligent person can do it. It is not necessary to go to see a doctor every time you put a little oil in the ear. Generally the ear does not require it.

Q. What does the food company intend doing with the peanut shells that were shipped in here recently?

A. A. Well, I understand one of the papers in the town suggested that these peanut shells were intended to be used by a certain editor in the

town  
to assist him in making brains for editing his paper; but I am not sure of what the purpose is. Our company has nothing to do with them.

Q. Does spinach ~~and alk~~ act like colax and other coarse materials in promoting peristalsis?

A. A. Yes, spinach is very good.

Q. What is indicated by the lengthwise corrugation of all the fingernails continuing and increasing for many years?

A. These lengthwise corrugations--I am not quite certain what it does indicate, but I have thought, as I have noticed that matter, that it might be partly produced by pushing back the skin at the root of the nail that a little injury is done to the matrix of the nail, a very slight one, and that may be the cause of it.

Q. Why is malted nuts an antitoxic food when it contains such a high percentage of protein?

A. Because the protein is vegetable protein, and because it contains a large amount of maltose which is highly antitoxic.

Q. What is the cause, effect, and cure of intestinal autointoxication?

A. That is too lengthy a subject for tonight, and we will pass it along. The cause is putrefaction in the intestine, and the effect is chronic disease partly, and misery indescribable; and the cure is the antitoxic diet, and keeping the bowels active.

Q. Do you think that neuritis or nerve rheumatism can be cured or practically so by strict adherence to Sanitarium principles after leaving the Sanitarium much relieved of the disease?

A. Yes, I think a cure may be effected, but not by diet or by the habits of life, but by the curative power which is in the body, acting under favorable conditions.

Q. Which is of most importance as Christian work, the preacher or the physician?

A. Well, now, I don't need to say anything against the preacher, and <sup>in favor of</sup> I might be prejudiced ~~against~~ the physician. The great Master sent his disciples out to preach the gospel and to heal the sick; to do both things together; and it is a pity that the preacher and the doctor have got divided, split up; the two things ought to go together.

Q. Do you consider a beard sanitary?

A. I do. I don't think it is unsanitary; if it was it wouldn't grow. It is a normal thing; and we must accept such things as we find them as being best.

Q. What is best to be done when there is habitual nausea?

A. The thing to be done is to get rid of this irritation of the stomach. A fomentation followed by a moist abdominal bandage over night is a very excellent remedy, and great care must be taken in masticating the food. Such a condition is usually relieved promptly by very careful attention to the diet, and cured in a reasonable length of time.

Q. What is best to be done when there is cracking and grating of the joints and muscles accompanying neuritis, and will it lessen and finally disappear as the disease abates? Is it among the more serious of the symptoms?

A. This will disappear probably in the course of a year or two.

Q. Does apple-juice cause fermentation with some people?

A. I doubt if there is much fermentation resulting from the use of apple-juice. Some people have gas in the stomach, but not from fermentation at all, but because of the cause which I explained a little while ago.

Q. Are dried figs, prunes and raisins prepared with cane sugar or molasses as well as the ordinary date of commerce?

A. No. The best varieties of dates are not prepared with molasses or sugar. The best varieties of dates contain cane sugar already formed in the date. It is only the cheaper dates that are prepared in this way.

Q. Are the dates used at the Sanitarium seasoned with cane sugar?

A. No.

Q. How long after a massage treatment should one wait before removing the surplus oil with soap and warm water?

A. I don't know any reason why the oil should be removed.

The oil should be left on, especially in cold weather. A coat of oil on the skin is as good as an extra overcoat; at least, a traveler used to say that. Certainly, it is as good as an extra suit of underclothes. It is a protection to the skin and is very wholesome. I believe some people apply water too freely to the skin, especially in cold weather. The cold air bath and the application of oil is perhaps all that is needed except when necessary to have the bath for cleanliness.

Q. Please tell us what will cure sleeplessness, and what will break the habit of waking up at the same hour every night?

A. First, earn the right to sleep. That is what you need to do--earn the right to sleep by honest work, and by making your peace with all the world; make sure there is nothing in your mind to trouble you. And the next thing is to ~~go~~ go without your supper; at any rate, if you eat supper, eat nothing which is hearty, that is, which requires a long time to digest. A supper of stewed fruit with rice, or some simple thing of that kind, will digest easily, but a supper of bread and butter, cake, pie, and things of that sort will take hours and hours for digestion. If you want to have an easy time in your stomach at night, don't eat bread and butter. That is about the most difficult thing the stomach has to deal with. It requires three and a half to four and

a half hours, or five hours to digest bread and butter; whereas boiled rice, or rice flakes will be digested in half an hour to an hour. But you may take fruit, which is already digested and does not require any digestion. So a supper made of stewed fruit with a little rice, if you are going to eat anything at night,--a little malt honey, some simple liquids, broth, or something of that sort will be digested in an hour and not disturb your sleep; while something more hearty might keep your stomach going all night. Then, the next thing is sleep outdoors. A lady said to me the other day, a lady with a baby two or three weeks old, "My baby don't sleep; didn't sleep any yesterday, scarcely a wink all last night, and kept me awake too. What shall I do with this baby?" I said, "Put it outdoors." "Put a baby only three weeks old outdoors?" I said, "Certainly put the baby outdoors." "Well, but," she said, "Why, the poor thing--nobody knows what will happen to it." "Well, get outdoors and take care of it yourself; put yourself outdoors." That was only four or five days ago, and I heard from that mother last evening, and she did just what I told her to--put that baby outdoors and went outdoors herself with it, and has been sleeping outdoors ever since, and the baby sleeps nearly all the time, and is just as happy as it can be. I met a lady on the street the other day, a young mother, and she was pushing along a sled before her with a perfectly healthy looking child fourteen months old, and it looked as though it was nearly two years old--a great, plump baby with rosy cheeks, laughing eyes, and I said, "Well, do you believe in taking the baby outdoors?" She said, "I should think I did. This baby has been outdoors ever since it was three weeks old. I put it out to sleep for two hours and a half every forenoon, and it sleeps outdoors every single night no matter what the weather is, and it has been two winters, last winter and this one, outdoors all night, never slept indoors one single night in its life since

it was three days old. I never saw a healthier baby," she said; "it has never been sick once in its life, and is perfectly well." The cold air has a wonderful influence to produce drowsiness and sound sleep. A great many people here in this house have sleepless nights because their rooms are too warm. When I got through here last night, before I got away, at ten or eleven o'clock, I called up the nightwatch and told him to cool off the house and keep it cool; and I advise every one of you to get your windows open and have your rooms as cold as it is outdoors. I sleep every night with the wind blowing right in upon my face. I often find two inches of snow on my bed in the morning when I wake up. I turn my wife and children outdoors every night, and not one of them sleeps indoors; you could not induce them to sleep inside; and outside they sleep sound and well and wake up in the morning with a keen appetite, and you feel as though you have been out sleighriding all night long and can hear the bells jingling. Why not? You know, when you go out for a sleighride you come back feeling so fine, and saying it did you so much good. You might just as well have that sleighride all night long, eight hours of it instead of half an hour, might just as well as not--nothing else to do. Why not? Why not? In this cold weather, the majority of people in this cold climate, miss the greatest possible opportunity of getting a tremendous lift. Every breath is a nice, cold tonic bath that gives you just a little lift; and you get one thousand of those baths an hour--just think of it--eight thousand lifts in one night, and every night if you want it. It is the greatest mistake in the world to miss this great opportunity. But I must let you go so you can get some of those lifts.

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QUESTION BOX LECTURE

At the Sanitarium Parlor, Battle Creek, Mich., Monday, January 3, 1910, 8 P. M.,

By

J. H. Kellogg, M. D.

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I wonder if we shall find anything new tonight. I almost always do, and almost always find something interesting.

Question: Could the stock of vitality or vigor with which each person is endowed at birth, be in any way increased, and can a person who was not strong and vigorous in childhood ever hope to become so?

Answer: Now this is a very practical and exceedingly interesting question. First of all we shall have to ask what is meant by vitality; what does vitality mean? The stock of vitality--exactly what does that mean? I do not know that I shall be able to define these terms myself. It is not a very easy thing to say what vitality is. But I think we may say that one's stock of vitality, whatever it is, that it is measured only by the greatest possible attainment of that man, under the very best possible conditions in strength, in vigor, in endurance, and efficiency. That would be his stock of vitality--the greatest degree of endurance, efficiency, longevity that it is possible for him to attain. Now it is evident that that can not be increased considered from that standpoint; it would be impossible to increase it because it is measured by the greatest amount that is possibly attainable to him; so it could not be increased. But here is the thing that can be increased very greatly. Here is a man that was born under certain conditions. Now, the condi-



tions under which we are all born are more or less unfavorable. None of us are born under conditions as favorable as they ought to be, as favorable as it is possible for them to be. I think it was the Autocrat of the Breakfast Table who said the greatest of all human felicities is to be well born." And there is no question at all about that. Unfortunately we do not have the opportunity to choose about it; we have to take it as it comes and make the best of it. But the conditions under which we are born, and under which we begin life are never as favorable as they might be. And so by rendering conditions more favorable, by making our environment more favorable, by complying more conscientiously and rationally with the requirements of health, with the requirements of the best possible conditions for our bodies, it is possible to greatly increase our efficiency, and to greatly increase longevity, and greatly increase the comfort and the joy of living; and consequently we may say that our stock of vitality is increased. Now, of course, one can not by any possibility increase the possibilities which he might attain under the most favorable conditions, because that is the maximum; that is the very top; but one may very greatly increase the probabilities, and increase the attainments which he is likely to have by improving his conditions. A person starting in life as an infalid boy or an invalid girl may enormously improve his possibilities in the majority of cases for two reasons: first, because the ordinary invalid, the average infant, I should say, is made more or less of an invalid while he is still in the cradle. The average infant is so terribly abused, subjected to sub maltreatment in various ways that there is a chance to remove an enormous load of handicap from that child by creating favorable conditions. Now, let us look at just a few of them. In the first place, the baby is badly fed. Even under ordinary conditions in which the child is supplied with food from the maternal font, the child is still badly fed. I had a letter the other day from a lady who wanted to know what to

for her baby. She said, "My baby is broken out from head to foot with ~~eczema~~. It is the most terrible breaking out, an awful rash from head to food; what shall I do for this baby?" I wrote her back a few things to do for herself. It is not necessary to do a thing to ~~that~~ baby. It was not necessary to do a thing for that baby except to do a few things to make it comfortable. The thing that needs to be done is to the mother; the mother needs to have something done. The ~~mother~~ is suffering from auto-intoxication and the baby too. It is a case in which the fathers ate some sour grapes, and the children's teeth are set on edge. However, in this case it was the mother that ate the sour grapes--not sour grapes in this case; it was beefsteak probably, or fried chicken and other abominations. The thing that is necessary is for the mother to have treatment, because there is no question at all ~~that~~ this mother is in a state of most profound intestinal auto-intoxication, and the child is being fed upon poisons. Why, the relation between the mother and the child is so extremely intimate it is something marvelous. Here is a mother that gets a fit, gets angry; and the baby gets a fit, a spasm. The baby is thrown into spasms by the mother's becoming angry just for a moment. Why? Why, I think I never heard it quite so forcibly put as by Mr. Wu Ting Fang, the Chinese minister, who has just returned to China, who was giving an address here, right where I stand, a year or two ago, and he was speaking of anger, and he said we can not afford to be angry. He was describing what he thought or believed to be the normal, healthy life, and one of the things he mentioned was that we must be at peace with our neighbors; we must never allow ourselves to be angry. "Why," he said, "anger poisons the blood." Now, I really had never thought of it in just that light before, but it is an actual scientific fact that anger does poison the blood. When the mother gets angry, the baby has a fit because it is poisoned. The fluids of the body are changed

in such a way that they become actually poisonous, and that portion of the blood which passes out into the mother's milk is itself poisoned, contaminated by these poisons, and the baby has a fit. We can see what a direful effect it must have upon the mother herself, then, because if the baby is thrown into spasms by these poisons, these same poisons, acting upon the body of the mother, must injure her also although the injury is not manifested in exactly the same way. The injury is deep unquestionably, it is deep and profound. Now, what is true of the mother is true of the father and true of everybody else that allows himself to become angry. Now, with reference to the baby, the baby is subjected to all these dangers and all these unpleasant influences. The mother's diet is not regulated according to natural laws at all; the mother eats as much as she likes and what she likes. It may be fried ham, or may be flannel cakes covered with burnt grease or some other things; it may be mince pie, or sausage,-- just think of what the ordinary mother eats. And the baby has to take the double distilled extract of all these poisons that the mother gathers from the breakfast table or the dinner table. The baby has to take it second-hand, so the poor little thing doesn't have a very good chance to start with even good, so-called normal conditions. But now if the baby is not nursed by the mother, but eats cow's milk in other words, the cow becomes the wet nurse for the baby, and the same care is not taken in the investigation of that cow that would be taken if it were a wet nurse come to the family. When a wet nurse comes to the family, she must first go see a doctor. The doctor examines her to see whether she is sound and healthy. The doctor takes the temperature, looks at the tongue, examines the teeth, looks to the fingernails to see if she is tidy in her habits,--notices everything about that woman that can possibly have any influence upon that infant. Then if she passes a good examination she is admitted to the family to be the food supply, to furnish the food supply for the baby.

But now, instead of a woman coming in to be the wet nurse, it is a cow. Who goes to see that cow, or feels her pulse and looks at her tongue, or makes any investigation about what she eats, or pays any attention at all to her diet? Why, the wet nurse of the family is looked after, she is carried for, she is fed with reference to the baby's welfare; but who looks after the cow? The cow, as a matter of fact, is really the wet nurse for the whole family. We seem to have adopted the cow and made her our wet nurse--the racial wet nurse so to speak, and we use milk that was never intended to be used; for milk was never intended to be food for adults; it is not natural food for adults. Still, the baby begins to take cow's milk, and with the cow's milk comes a perfect Pandora's box; that cow's milk is a veritable Pandora's box of mischiefs for that baby, and brings troubles and trials innumerable. In the first place, cow's milk is a perfect botanical garden of germs,--all kinds of germs there. I had some time ago a collection of Cow's milk germs; I had over forty germs that were gathered from cow's milk, and the most interesting lot they were. There was one germ that was pink, and when it grew in the milk it made the milk pink; and here was another germ that made it red. One germ made it red all through; another germ made it red in spots on top, and another made the milk blue. It wasn't milk that had been skimmed, either; it was milk that was blue before it had been skimmed. It wasn't boardinghouse milk, but milk that was really blue, the blue color produced by germs which produce coloring matter similar to indigo, and color the milk; then there were germs that had various sorts of bouquets about them. One smelled like new mown hay--very delightful; another had the smell of Vermont butter; another smelled of a chicken coop; another had the smell of a pigsty, another the smell of the barnyard--barnyard germs. Each one of these germs produced its own particular flavors. Now, the baby gets all of those and more--germs that produce

putrefaction and fermentation have been carried in along with the milk. And the same thing happens to the milk. Put such milk into a bottle and it will swell up and blow the cork out of the bottle; and it swells up with the baby in the same way. Then there are putrefactive germs that produce a smell of limburger cheese. Limburger cheese is due to the decay of the casein and as a result of the growth of the putrefaction germs that are in the milk. Where do they come from? The stable, the barnyard, the dairyman who milks the cow puts them in, puts them in. You can see--he has the milk pail there between his legs--you have seen him often doing it,--rubbing the cow's teats, rubbing the germs down into the milk pail. And out in India where they do not keep the cattle indoors, where it is hot enough so the cattle live outdoors, they actually gather up some of the excreta of the cow and put it into the pail. A missionary told me that. She wondered why the milk had such a peculiar flavor. It had a very peculiar kind of flavor, and she found the Hindoo has a peculiar prejudice against milk, won't eat milk at all; they never eat it, because they consider the cow a very sacred animal, and they regard the milk as a ~~kind~~ thing that belongs to the calf, so it is robbing the calf; that milk was intended for the calf, belongs to the calf and we have no right to it so it is ~~still~~ stealing from the calf, and they have to perform some religious rite to atone for this theft, for the crime committed; and the ceremony consists in collecting some of the urine of the cow and putting it into the milk. And that is regularly and systematically done. A missionary from India, a very intelligent woman, a doctor, a lady physician who was thoroughly familiar with the facts, told me this personally some years ago, and I have good reason for believing it to be true. In this country perhaps it is not done with exactly so much malice or with any religious intent, or as a part of a ceremony, but it is done just the

same. The worst sort of filth is put into the milk. You can not find a specimen of cow's milk that doesn't have some of these germs in it. It is only when it is collected with scientific precision and care that you can find milk without them. There are so many that it is common to find twelve million germs in one teaspoonful of milk--a common thing. In the State of Michigan, milk is considered good commercial milk, salable milk when it doesn't contain more than 800,000 germs to the teaspoonful; that is to the small teaspoonful, not the large one. Eight hundred thousand germs permissible by the law of Michigan, and the milk is called good milk! Now think of a baby swallowing those germs, taking them into its alimentary canal. They are growing there, putrefying there, and saturating the whole body of the baby, and the baby gets a coated tongue, the stools begin to have a putrid odor, which is entirely unnatural, never ought to be so with any human being. There is no reason in the world why the food remains, the remnants of food which pass from the body should be any more infectious, or any more impure, or any more offensive than the same food when it enters the body. There is no reason why the food should become polluted in passing through the body--not a particle of reason. It is not a natural thing at all. Down in South America there are parrots that live on bananas, and the food remnants, the bowel excreta of these animals, has the odor and the flavor of bananas, and has not the slightest offensive quality about it, not the slightest. It is simply because of the infection of the alimentary canal by these friendly germs. Now the baby has all these things to contend with, so it isn't any wonder babies have the ricketts. It used to be supposed Ricketts was some obscure sort of nutritional disorder; nobody knew what was the case of it. There were a great many peculiar, fantastic theories about it, but now we know it is due to germs. These ~~ricketts~~ diseases, ricketts and scurvy are very

common to children and they are all due to the poisoning of the body with these contaminating substances that we absorb from the intestine, the result of putrefaction. Now, if a child can only be brought up normally, naturally, so it has really a fair chance for its life, we would not find so many invalid babies; but suppose we find one of these invalid babies, supposed to be a very puny child, and we put it under normal conditions and give it wholesome food, and see that the milk it eats is normal, healthy, clean milk; we give the child normal food in every way, give it outdoor air to breathe, and see that the child is properly groomed every day, that its skin is oiled, that it is exposed to the air, and that its bowels are kept in a thoroughly healthy condition,--suppose we bring up the child in that way. The child then would have a far better opportunity for healthy, vigorous life. The most of us barely survived infancy; we just barely managed to live through. There are thousands and thousands of infants who don't live through. Twenty-five per cent of all babies that are born die before they are a year old. Just think of what a sacrifice that is--one quarter of all the babies born die before they are one year old. They are killed off by the mal-treatment they received, as a matter of fact. We are taking better care of babies now than we used to; they are living longer. The infant mortality, the mortality of children under five years of age has diminished thirty-five per cent in the last twenty-five years--35%. That is a wonderful change; it is a wonderful saving. It means that one third more babies live than did. Some of us know something about that from personal experience. Here is a chronic dyspeptic. I was talking with a gentleman the other day, and I said to him, "How long have you had stomach trouble?" He replied, "All my life, Doctor, all my life; I can't remember when I didn't have it. I have always had it." "Well, where did you get it?" "In the cradle." The fact is that most people who have chronic dyspepsia got their dyspepsia before they were a year old;

The baby eats unwholesome, indigestible food; the food ferments; the stomach swells up, over-stretches, and the ~~wax~~ baby gets a dilated stomach and goes through life with it. Suppose you had a finger put out of joint when you were a baby, you would carry that dislocated joint with you throughout your whole life. So if a baby's stomach gets prolapsed because of its bad treatment, because it was over-fed, and because of the fermentation of food in its stomach, the stomach becomes dilated and prolapsed, the baby carries that stomach with it all the rest of its life. If the baby's bowels have been neglected, and the little, thin walls of the intestine, so very thin, so very fragile, are very easily overstretched by the fermenting and accumulating putrefying materials which are there in the bowel. The baby's bowels are constipated, and the bowel becomes enormously over-stretched, and it is damaged, it is crippled for the whole baby's life. It is a most remarkable thing that we are alive, when we look back and see what we went through. I had the misfortune to be a puny baby myself. My folks never thought I was going to live till I was five years old, and they knew I wouldn't live until I was ten. When I was ten, everybody was certain I would not live till I was fifteen. When I was fifteen, they were making preparations for my funeral. I was expecting to die of consumption for a whole year, in my sixteenth year. I had a terrible cough, and it was the general prediction I would not live till I was twenty. I was so thoroughly inoculated with the idea that I myself never expected to live. I thought when I was twenty certainly I would not live till I was thirty; and here I find myself almost fifty-eight years old, and it seems to me now there is no reason why I should ever die (applause). But we all know that time is a great destroyer; none of us can ~~resist~~ resist him; but certainly if I had known then what I know now, I think I would have had a better chance for living to 150 years. If I had known it when a boy,



if my parents had known what I know and given me the sort of chance I have tried to give my boys and girls, I don't see any reason why I could not live 150 years just as well as not. I believe the average man is born with vitality and vigor enough to carry him through 150 years if he gave himself a fair chance. Stop to think of it a minute. Here is a horse, for instance. You know what the normal conditions of the horse's life are. He must have grass to eat; he must have an outdoor life; he must have exercise every day, almost every day at any rate--frequent exercise,--must have as much fresh air as possible. Some twenty-five years ago I visited a great horse farm in Kentucky, or Tennessee,--just over the line I think in one state or the other, on General Jackson's farm, where some of the most famous race horses in the country have been produced, and I was very much interested in looking at his barn. I will just make a little diagram of his barn. Here is the entrance to it, and here were the stables all around this court, and they were all open at the back side. It was divided up into stalls all around here. Each horse had its stall, and they were all open on the back side, absolutely no inclosure at all. There was a good window here for fresh air, and the back side was entirely open. Summer and winter these horses were never indoors. They had a shelter over them so they were kept dry, and being in a hollow square of course they were somewhat protected from the winds, but the inside of this square was absolutely open, and there was no partition at all here--just simply a little grating or a little railing and that was all. It was Col. Harding's farm. General Jackson was his son-in-law,--the General said, "We believe that our horses have great endurance, and that they have the strength and vigor which they possess because we keep them always outdoors and we see that they have an abundant supply of fresh air." You see these horses were given their normal condition of life. What man would imagine that the best horse he could get anywhere, the best horse he could buy anywhere, the

strongest, fleetest, best animal he could find,--that that horse would preserve its integrity and all its strength and vigor and fleetness and ability if he would shut him up in a stall and keep him there? Suppose a business man should get a fine horse and treat that horse just as he treats himself,--shut him up, give him no exercise, feed him all sorts of things, just feed him anything and everything that every animal on the face of the earth ever eats--give that to the horse, and if the horse won't eat it, take it straight, cover it up, disguise it; get some French chef to fix it up in some shape so he will think it is all the food he needs even if he doesn't want it. If he should treat the animal that way, how long would it live? Why, it wouldn't take six months to ruin him. But that is just the way the average business man treats himself. That is the way most of us have been brought up--to live in the most unnatural sort of way; and the marvel is that we are alive any of us; that we have any life at all left. We haven't very much, and we are losing what we have. One disease has doubled its mortality in the last twelve years. Twice as many people die today of diabetes as died of that disease twelve years ago. Cancer has doubled its mortality--the number of victims it carries off yearly, and it has been doubling every forty years. Just think of it, my friends! What will happen a century from now if we keep on at the present rate? Chronic disease is multiplying at a fearful rate.

Q. Please tell us how very slow motility may be overcome.

A. Now, the thing that is needed by the stomach that is slow is to be born again. It has got to be reconstructed, to be made over new. It is the situation of the bad man Paul tells us about--he needs to be born again. He must put off the old man and put on the new. Now it is exactly so with health. The chronic invalid must be made over new, he must be reconstructed on a new plan and that is what this whole scheme is for here at the Sanitarium. That is why we

ask you to live so high, to live on the top shelf here, on the sixth story.

And that is why we ask you to eat only the most wholesome food, because the food is the material out of which the new body is to be made. Then we send you down here to the bathroom to have sweating baths, and flagellations of various sorts,-- electric light baths, and all sorts of baths. What are they for? Simply to wear out the old man, to scare him off, to dissolve him, drive him away, get rid of him, of the old man. That is what all these treatments are for. And the diet is for building up the new man, and we ask you to rest and sleep a reasonable amount of time for it is only during sleep that the new man is rebuilt. You are invited upstairs to the dining room three times a day to get a dose of new man. That is what you get from the table up there--it is the new man. The food you eat today is walking around and talking tomorrow; it has been promoted, transfigured into new, active, living being and on a new plane, a new man, a better man. The old man, as I said, has been driven off, gotten rid of down here in the bathroom, in the various treatment rooms, and that is the only way we can ever have a better stomach,--is to get a new stomach. And what is true of the stomach is just as true of the liver, just as true of the brain, just as true of the muscles, and true of these old rheumatic joints. You have got to get new ones; and the beautiful thing about it is that it is possible. It is ~~the~~ possible; that is the wonderful thing. Over in Germany some time ago a German physiologist made a very cruel experiment with a rabbit. He opened up a rabbit's body, got hold of its liver and cut off half of it. He closed up the body, and the rabbit got well. Three months afterwards, he opened up that rabbit's body again, and that liver had completely restored itself. The half of the liver that he had cut off had grown on again. Then he cut off the other half. And three months later he opened up the body of the Rabbit again, and there was the other half grown on again, and so the rabbit had a whole brand new

liver. (Applause). Now, my friends that is exactly what the most of you are looking for; that is what you want, and you can have it; you can have it. A man can reconstruct his liver just as well as a rabbit can, and that is what makes it possible for him to get well. That is the only reason why it is possible. Now, many of you went off to mineral springs somewhere and imagined you were going to get well by hocus pocus, and you didn't get well that way. You imagined there was a genius or spirit of healing resided there in that spring, and somehow you were going to swallow part of it and it was going to do miracles inside of you, that it was going to reconstruct you; but the thing didn't happen that way. You felt a little better after while, because the purgative effects of the water cast out some of the germs down there making mischief for a little while, and you felt better, but pretty soon you were worse than ever, went back to the old ways. What is true of the mineral spring is true of every drug that is known. Strychnia makes you feel stronger when you are not stronger. Morphia makes you feel comfortable when you are not comfortable. Bromid of potash makes you feel sleepy when you are not sleepy. These are factitious things, nerve foolers, deceivers that make us think we are better when we are not better. They are just exactly like alcohol in that respect. Alcohol makes a man feel warm when he is not warm, when he is really colder; it makes him feel rich when he is actually poorer; it makes a man feel comfortable and at peace with all the world when he is really in the most wretched and miserable state possible. So it is with every drug: it is a deceiver. Drugs are all deceivers. I do not mean to say that drugs are not sometime useful. Sometimes we want a man to be deceived. When we are going to cut a man's leg off we want him to be deceived so he won't know what is going on; but the real work of cure must be accomplished in some other and entirely different way. Drugs do not cure; they are not curatives; they are palliatives but they are not curatives, and what is true of drugs

is just as true of baths. Baths are not curatives; baths are only a means of temporary relief but they are less harmful than drugs; they work in natural ways, so they are superior to drugs when they are available. The real cure must come from the operation of the powers within the body. How important it is that we should get that conception clearly in our minds--that the real healing power is within us, is within us--is a marvelous intelligence dwelling within us that has been with us always. It is the same power that made the world, my friends,--the same power that made the first man, that made the first tree, that made the first flower,--that same power is living in us and working in us, and that is why we live; without it we could not live a second; and this power is the power that can recreate us and reconstruct us and make new beings of us. The important thing is to work in harmony with it, work in the right way, and keep on doing it. I met a man today who told me he made a mis-step; he was traveling in Europe and kind of forgot himself, and he ate table d'hote dinners for six weeks, then had an awful attack of appendicitis and nearly lost his life, and has not got quite over it yet, and that is why he is here. Now, you see, it was a mistake. He recognized that he made a mistake. He forgot himself, as he said,--eating table d'hote dinners. Now, the table d'hote dinner is an assault upon the stomach. It is rank assault and battery. The ordinary table d'hote dinner is a splendid recipe for making a man sick. It is a beastly sort of a repast. We can hardly find a thing on it except things that are dead, things which ought to have been buried some time before, but they are put there upon the bill of fare to be buried in stomachs. Now, if we want to live well, if we want to enjoy life and have the use of our bodies and our brains and our minds and accomplish the most we possibly can in the world, and enjoy the world as much as we can, it is only by keeping ourselves in harmony with the great laws of our being.

Q. Please explain how to drink water properly, both with and between meals.

A. Now, the way to drink water properly is to drink it whenever you are thirsty. It is just as wrong for one to neglect to drink when he is thirsty as it is to neglect to breathe when he feels the need of air. Thirst is an instinct, it is a voice speaking to us and asking us to reach out for water, to reach out our hands and take of the water of life freely. The water that falls, that is made for us, that comes down from heaven, is a life-giving element, and when you are thirsty that is a divine voice within speaking to us and telling us we need to take of this water; that our health and happiness require it; so that we should not neglect to do it. Now, here is where we make a mistake. When we experience this call for water, we sometimes give ourselves a deluge, so to speak. Now, a call for water does not mean a deluge. It doesn't mean we should call out the whole fire department because we need to have the front yard sprinkled; it is not necessary. The call for water means just so much as we really need. Now, I have seen people step up to the fountain, to the faucet and take a glass of water, and down it goes; take another one, and down it goes; and another one, and down it goes. You have seen people drink that way, and it seems to me as though there must be a big, open tube in there and it simply flowed right down. That is not the way to drink. We should fletcherize when we drink. It is just as necessary for us to chew water as it is to chew anything else,--not because it has to be broken up into bits, but because it needs to be taken slowly. I have seen people actually choke and have a cough, actually get into a habit of coughing because they tried to swallow water so fast. Why should we be in such a hurry about it? We swallow water so fast we don't know when we get enough. When one drinks slowly, then there is opportunity for the

reflex motions by which we find out what is going on in our bodies, by which one part knows what the other part is doing; there is opportunity for the operation of these reflex activities; but when you pour water down in a flood, like a great tidal wave rolling in upon us, it does not give the instinctive powers of the body an opportunity to report what is coming down, or what is being done. One should always drink slowly, first one little sip, then another little sip, then another little sip. In that way you relieve thirst by a very much smaller quantity of water. It doesn't take anything like as much water to relieve thirst ~~far~~ if one drinks in that way. I met a man a while ago and he said, "Doctor, why is it I can't get relief from thirst sometimes? After drinking four or five or six glasses of water sometimes, I still feel thirsty; I sometimes have to drink two or three pints, actually two or three pints of water before I get relief from thirst." This man was in a very peculiar situation. This was the unfortunate state of that man. He had a pocket in his stomach here so when he drank he had to fill his stomach, or had to fill this pocket up; then he had to fill his stomach up, clear up to here before he began to get relief, because water is not absorbed from the stomach. The stomach does not absorb liquids. That is a very interesting fact that has been discovered within the last few years, ~~as~~ ~~is~~ that water is not absorbed from the stomach; it is absorbed from the intestine; so ~~instead of taking~~ <sup>when you</sup> water into the stomach, it must pass out of the stomach before we get any use of it. Now, then, when this man drank water very rapidly, you see, he did not get any relief; as I was saying before, he did not get any relief until his stomach was full, and when it got brimful and running over, then his thirst was very quickly relieved. So, then, ordinarily in drinking if we take a small amount and wait a little while this small amount we take will pass out into the intestine, in the course of five or ten minutes, and will be absorbed and we will have relief; but

if we pour down glassful after glassful we overstretch the stomach and get perhaps no benefit. In that way we may take four times as much water as is needed, or as would have been needed if we had taken it slowly and given it time so that it would after while be absorbed and we would be satisfied; but taking it in so much haste, we take four times as much as we need before we find it out. So one should always drink in moderate quantities, and never drink a large amount at a time. Many people get a prolapsed stomach, or a dilated stomach by overloading the stomach with liquids in just that way. But drink whenever you are thirsty. If you are thirsty at meal-time, drink. It is refreshing to the mouth, to the sense of taste very often to take just a little sip of water. There is no harm in drinking ice water at meal time if that is the only water you find available, if you drink it only in very small doses, just a very little sip of water and hold it in your mouth until it gets warm, and then swallow it. It is not in the mouth where the ice water does the harm at all; it is in the stomach where the mischief is done; but if you put down the whole tumblerful of ice water, that paralyzes the whole process of digestion for an hour and a halfer even more. Dr. Beaumont, who had a man with a window in his stomach, Alexis St. Martin, noticed that the stomach was paralyzed for more than two hours after taking two thirds of a glassful of ice water. He put a thermometer in the stomach and found the stomach was still cold, and the temperature was not yet raised sufficiently to allow the process of digestion to go forward-- a whole hour and a half after a glassful of cold water had been swallowed. So we should not swallow cold water in any considerable quantities at a meal.

Q. In the schools connected with the Sanitarium is there a teacher of elocution who instructs intelligent young men and women here how to express their ideas in a manner to impress their hearers?

A. The teaching of education is important. Our custom has been here



to employ men at stated intervals to come here and give instruction of this sort. We haven't the good fortune to have a professor of elocution just at the present moment, but we will have him in due season.

Q. When the mucous membrane is so exceedingly thin and tender that cutting winds cause bleeding of the nostrils and even ears, would it not be best to seek a milder winter climate?

A. Now, I don't think it is because the wind is so cutting, because the wind is not cutting in the sense in which a knife is cutting; it is because it is so dry; that is probably the reason for this difficulty, and it would probably be entirely overcome by simply taking pains to inject a little oil into the nose with an atomizer two or three times a day so as to lubricate the mucous membrane, and to put a little oil into the ears once or twice a day, and you will find the difficulty will be entirely overcome. I should not be frightened away from this beautiful Michigan climate by such trouble as that. A little oil will cure the whole trouble.

Q. What food would you advise for extreme cases of neurasthenia and a bad catarrhal condition of the stomach and intestines?

A. I should say that person ought to adopt an antitoxic diet and leave meat out. In the first place, he must discard meats of all kinds, and he need not be afraid to do it. I was in Boston day before yesterday. I went down to attend the meeting of the American Association for the Advancement of Science--the American scientific association which corresponds to the British Association. There is a similar society in Great Britain. I have had the pleasure to be a member of this society for more than thirty years, but I have not been able to attend always; but this year I made up my mind I would run away for a day or two and meet some of my old friends in Boston, and I had the pleasure of listening to a very interesting address by a very interesting man, Dr. Folin. Dr. Folin is

a Scandinavian who has been in this country about twenty years, I guess, and he has worked his way from a medical student as a self-supporting young man up to the professorship of physiology in the great university of Harvard, and he has acquired a worldwide reputation by his original, ingenious and remarkably exact scientific investigations. Dr. Felin in his address made this remark: "We have studied the subject of the low protein ration, and have investigated this subject to this point, that we are able to say to the doctor, 'in making your prescriptions for your patients, you do not need to pay any attention whatever to the question of protein except to be careful not to give too much.' The doctor doesn't ever have to consider the question of protein at all, only to be careful not to give too much." Why? Why because it has been found out that protein is the least--while it is important that there should be a little in the food, that in a general way it may be said it is the least important of all the food elements. Now, the protein is the material out of which the body is built; but when the body has been once built, it doesn't wear out very fast. I was talking a day or two ago with an inventor and a manufacturer of printing presses, and he said they were putting out new presses and taking back the old ones. "Well," I said, "What use can you make of those old presses?" "Oh," he said, "they are not much worn. Why," he said, "you know a printing press does not work much; it works about an hour a day and that is all. It doesn't do more than two or three days' work in a whole month. As a matter of fact the ordinary newspaper press, though it is ten years old is still almost a new press, for it doesn't work very much; it is almost as good as new." Now, it is exactly so with the body. The body does not work all the time you see, it doesn't work every minute; it has several hours at night in which to repair itself. And so the active part of the body, the muscles and the nerves and the bones and those parts, don't

change but very, very little. Here is a big locomotive pulling a freight train down the track. Now, when the locomotive is moving, the fireman is hard at work pushing coal into the furnace. He puts it in as fast as he can, shuts the door as quick as he can so he won't lose any heat from the furnace. And at every station, perhaps, the engine takes on more coal; but you do not see this fireman stopping at every station and rushing around to find a blacksmith shop, or a hardware store or somewhere else where he can get some brass, or bolts, or iron nuts, or sheets of metal, of some other sort to put onto the engine. Once in every 200 or 300 miles the engine goes into the repair shop, the round house, and is there looked over and gets a few little repairs. Now, the metal repairs you see, are very small; the coal and material used for fuel is the thing required in large amount. Protein is to the body what metal repairs are to the locomotive. The locomotive needs very little metal repairs and the body needs very little protein repairs. Now, Dr. Folin made this remark,--that we do not need to pay any attention to the matter of protein at all except not to get too much, because all foods have protein enough. Even rice, which has so little protein, is considered almost a farinaceous food, is a highly farinaceous food, has protein enough, and the potato has protein enough. One could live well if he never had any more protein than what the rice or potato contains--get along all right. I was chatting with Prof. Folin about some of his experiments, and he told me he had lived two whole weeks and worked hard all the time and did not take any protein at all. Now, protein is the food element represented in the white of egg, and in the lean flesh of meat, and in lean meat. Prof. Folin told me he had worked hard all the time during two whole weeks and didn't take one particle of protein, lived entirely on fats, starches, salts,--foods with the protein all taken ~~aw~~ out, and he didn't <sup>lose</sup> lose an ounce of weight, and not a particle of strength; and he worked two weeks without any protein at all.

So the experiments of Chittenden and of numerous other investigators have shown beyond any possibility of doubt that this idea that we must have meat, flesh of some sort is the greatest delusion possible. We can keep it all out of the bill of fare, take what is left, and there is plenty there if we only take pains to chew it well and to eat a proper amount of ~~it~~.fat.

Q. When the stomach test shows that starch digestion is bad, how is it going to be improved?

A. We don't have to pay any attention to starch digestion at all. It will just take care of itself if you take pains to chew. The reason why starch digestion is bad in the stomach is because there is too much hydrochloric acid there; that is the reason, and the hydrochloric acid hinders the action of the saliva. If you get rid of that extra hydrochloric acid, there will be no trouble about the starch digestion. But now I will tell you something else which I think will interest you very much. Within the last year a new thing has been discovered about digestion, and that is that the starch digestion is only suspended in the stomach; that the saliva, if you only swallow enough of it, if it doesn't get a chance to act in the stomach, if it is interfered with by the gastric juice, passes along down into the intestine, and that saliva gets in its work, just gets busy down there, gets after that starch ~~it~~ and digests it just the same as though it had been taken into the stomach, so you don't need to worry about it at all. One does not suffer particularly because of the indigestion of starch. That is an old delusion, that has passed away, has been entirely dissipated by the new light which Pawlow and other investigators have shown us upon this subject of digestion--that there is no trouble about that; that anybody who suffers from inability to digest starch in the stomach,--the gas, or fermentation does not come from fermentation at all; the acids that are formed are not from the fermentation or souring of that starch; that is all

a delusion; it is all a mistake; the acid there is too much gastric juice; that is what makes the stomach smart, makes it burn; that is what makes the eructations is the mouth of hot, irritating fluid; it is too much gastric juice and the gas that comes up from the stomach is not formed from fermentation of starch at all, but ~~this gas~~ it is gas that is naturally in the stomach, and the reason why it comes up is because the pylorus is shut up so tight it can not go down. It comes up from the intestine and is imprisoned in the stomach, and there is so much acid there that there is a spasm of the pylorus so that it shuts up so tight that the food can not move down as it ought to, and the stomach is trying to force the movement of the food somewhere, so the movement is up instead of down. So you see it is wonderful light we are getting in these recent years. Things are made plain to us that formerly were obscure, that we did not understand, and we have to lop off a lot of old so-called facts, supposed facts, as being absolutely worthless.

Q. Who is the author of the word autointoxication?

A. Prof. Bouchard I think originated that word; I didn't. Somebody asked me if I discovered autointoxication or if I made it. It was Prof. Bouchard of Paris.

Q. What word was formerly used to express the same complaint or condition of the patient?

A. Biliousness. Biliousness is the old fashioned word. When a man has a bilious attack, he simply has an attack of autointoxication. That is all it is--nothing else in the world. We say autointoxication now, where we used to say bilious. The patient used to go to the doctor and say, "Doctor, my liver is out of order; give me something for my liver. I have got a bad taste in my mouth, and I see specks before my eyes; my skin is getting dingy and I want something to clear out my system", and the doctor used to give you

*Autointoxication*

some purgative medicine and you felt better. He would give you a dose of calomel, perhaps, and you felt better. Why? The doctor said it would act upon your liver. It doesn't act upon your liver at all. Dr. Bennett, of Edinburgh, more than one hundred years ago, made some experiments upon a dog so that the bile was all discharged out of doors, and he collected the bile; he then gave the dog some mercury, blue mass, blue pill, mercury in various forms, and the dog made less bile every time. And that fact has been known to the medical profession all these years. Dr. Rutherford, of England, renewed these experiments upon animals and upon men. He had a man with a diseased condition of the gall-bladder with whom he had opportunity to make careful research upon, and he found this was true; so he went on and experimented with all the other cholagogues, that is with all the other liver stimulants, and he found there was not a single one of them ever made the liver make any more bile, but the liver made less bile all the time. These so-called cholagogues all diminished the work of the liver. It had to be so because all these other so-called cholagogues were poisons, every one of them, and when they were taken into the blood, they had to be passed through the liver, and the liver had to ~~push~~ busy itself about them, and it could ~~hadn't~~ spend so much time in making bile because it had other work to do which it ought not to have had to do. But, as I said, in these old days, you went to the doctor to give you something for your liver, and the doctor gave you something supposing it was for your liver. But it was not for your liver at all; it was for your bowels. What it did was to carry off that mass of poison, that putrefying mass down there in your colon was simply discharged from the body and the body was relieved of the necessity of absorbing it and carrying it off through the liver and kidneys, and the liver was relieved because the liver has to work over these poisons; so there wasn't so much poison for the liver to deal

with and the liver had a chance to catch up with its work, the ordinary work which it had to do.

Q. What is the cause of neuralgia?

A. Poisoning of the nerves.

Q. In what way does neuralgia differ from rheumatism?

A. Rheumatism is a disease which infects the hard tissues of the body, the cartilages, the ligaments around the joints, the fascia, the sheathes, the muscles; while neuralgia is a disease which affects the nerves. Really the same poisons that make rheumatism may also make neuralgia or neuritis.

Q. Don't you think physicians and preachers ought to work together as in the olden time?

A. Yes, but I am afraid you will never make them. The millennium will come, I guess, before doctors and preachers will ever pull together in the same harness. The doctors don't have any faith in the preachers, and the preachers don't have any faith in doctors. I am not speaking of myself because I have more faith in preachers, and I believe some preachers have some faith in some doctors.

Q. What is the cause of pain and a drawn feeling in the shoulders and neck, especially when eating?

A. Now, this pain and pressure in the back of the head, and a rapid beating in the head all comes from over-stimulation, from an excited state of the sympathetic nerves. The great abdominal spine is irritated down here behind the stomach; the great brain that rules the heart and the whole circulation of the blood through the body is all controlled here by this great sympathetic brain, the abdominal brain, and it is excited during the act of digestion, and when it is over-excited these symptoms occur.

Q. What is the speediest way to recovery from slow motility of the stomach?

A. Get a new stomach.

Q. What is the best food for one who has a very weak stomach to prevent the formation of gas?

A. That patient is suffering from hyperpepsia, hyperacidity, and the proper thing is to make the bowels move three or four times a day so as to carry off the food remnants so fast they will not have time to undergo putrefaction; and there should be a sufficient amount of fat taken to prevent the stomach from forming too much gastric juice, for fat is an inhibiting food element which prevents the stomach from making too much gastric acid.

Q. Is it proper to use cream with fruit sauces?

A. It is no harm at all. Fruit juices and cream agree together all right provided the cream agrees with you and the fruit. Some people can not eat cow's milk. Cow's milk seems to be almost poison to them.

Q. How much time should elapse between the meal and the bath?

A. It depends upon the bath. If it is a hot water bag over the stomach or a fomentation over the stomach, or a moist girdle, it may be made immediately after the meal, or even a few minutes before the meal, or at any time during the meal; but if it is a general hot or cold bath, there should be two hours between the bath and the meal.

Q. One of the best physicians in Chicago says that mercury used in filling the teeth is injurious to health. Is this likely to be so?

A. I have met people who thought they had been insalivated by mercury in the teeth, but I have very serious doubts about it. Possibly there is a little harm from it, but I think it is so very small it would be pretty difficult to prove it.



Q. What is the matter with a child five years old who has never been able to walk and can get around only by sliding over the floor in a sitting position?

A. It has probably undeveloped lower extremities. In the development of the human being the lower extremities develop last. You notice the newborn babe has very little legs, very short legs compared with the rest of the body. The legs naturally develop rapidly after birth, and in this child there seems to have been or may have been an arrest of development. But there is another thing that may happen. The child may have had, when it was very, very young, before it was old enough to walk or to begin to move about at all,-- it may have had inflammation of the spinal cord, a peculiar form of disease that causes paralysis of one leg or even of both legs. The child should be examined carefully by a good physician.

Q. Would hydrochloric acid taken long enough produce acid enough in the system of a person with apepsia?

A. No, there is no cure for apepsia by using hydrochloric acid. The cure must come from getting a new stomach and getting the stomach glands developed so that they make their own hydrochloric acid.

Q. Would it be advisable to take a cold bath every morning after leaving the institution?

A. I would advise in cold weather a cold air bath, not a cold water bath but a cold air bath. Expose the body to just the coldest air you can find and give the skin a vigorous rubbing at the same time so as to avoid getting chilly, and you will find it is much better than a cold water bath. Cold water often produces chapping of the skin and irritation, and a little smarting and tingling and pricking, sometimes, in cold weather, because of the extreme dryness of the air. The cold air is better because you can always get it by open-

ing your window, and it doesn't require any paraphernalia to take it, and it is very good to supplement the bath with a dry towel rub. Take a dry towel and ~~seesaw~~ it across the shoulders and about the body. Go all over the body with a dry towel, giving the skin a vigorous rubbing at the same time/

Q. Please tell us if malt honey is injurious to persons with a peptic and gastritis.

A. No, it can be taken in moderate quantity with benefit.

Q. Are there any certain kinds of foods to be avoided here by one who has a large quantity of gas in the intestine?

A. The important thing to avoid is allowing food remnants to remain in the intestine. See that the intestines are kept moving,--that there is constant movement of food remains, and that they find their exit from the body three or four times a day. The bowels ought to move after every meal. It is an extremely abnormal thing to have gotten into such a state that the bowels move only once a day, or once in two or three days, or once a week, or when it is convenient or handy, or you happen to think of it,--it is absolutely outrageous and more disease comes from this interruption of the natural rhythm of Nature in which when some new material is taken into the stomach, the old used-up material is discharged at the other extremity of the alimentary canal. That is the normal process, and it is regularly observed in lower animals and in infants. The baby's bowels always move after the baby eats, and that is the proper thing. It is the only way in which the alimentary canal can get free from putrefying materials; and it is important that this habit should be cultivated if possible. The diet should be so regulated that this will occur. If it does not occur, then the ordinary food may be supplemented by means of bran, the use of bran; by the use of a bran cracker, or a cake of Colax, as we call it here, made from agar-agar--call it Colax for convenience, for short; or if necessary by some little

stimulant, as a small amount of cascara sagrada or some other simple thing. It is far better to use something of that kind, even if you have to use it habitually, than to allow these accumulations in the bowels with only an occasional housecleaning by means of the enema--it is far better. Thousands and thousands of people are perfect martyrs to headaches and loss of appetite, to drowsiness, obtuseness, nervousness, irritability, insomnia because of the absorption into the blood of these poisons which are generated in the intestine. It is an unpleasant thing and a bad thing to have to be taking a medicine, but it is far better to take the medicine than it is to take these poisons. The poisons are ten times as bad as any medicine you are likely to take. Be assured I don't recommend medicine only in cases of emergency. Don't allow the bowels to be neglected. If necessary, get some mineral water or almost anything to make the bowels move. Many people in traveling upon the cars are troubled in this way. The important thing, however, is to have such active habits of life, such active exercise, especially of the trunk muscles that the bowels should be normally stimulated to activity two or three times a day. Ask a healthy boy how many times a day his bowels move and he will tell you three or four times,--every time he eats. A good, healthy, vigorous boy who plays outdoors and eats normal food is pretty nearly as healthy as a squirrel or a rabbit or a deer, or a colt in a pasture. He has a chance. Girls don't have so a good a chance for health. Grown-up human beings are harnessed into an office and go to work to wear themselves out just as fast as they possibly can, change health for dollars and pile up dollars for somebody else to spend.

Q. Do man's teeth and other organs indicate that he is omnivorous?

A. They indicate the very opposite. The teeth of man are almost identical with the teeth of the gorilla, the chimpanzee and the orang-outang. These animals still live in a normal condition; they haven't wandered so far

from the path of rectitude as human beings have, and still may be looked up to as examples of how one ought to behave toward his body. They take far better care of themselves than human beings do. A monkey in a cage makes work for himself. He rushes all over that cage, exercises, hangs by one hand or by his tail, swings about; he is hard at work, exercises and keeps his muscles in fine condition; and if you watch him eating, you will see that he fletcherizes too. I had a monkey live with me some years ago on purpose to study his habits. Some twenty-five years ago I sent to my friend, Dr. Hornaday, who is superintendent of the zoological garden of New York, and asked him to send me a monkey. So he sent me a monkey, and I studied that monkey with very great interest, and we became very good friends, and I observed he was a splendid example of fletcherizing. I didn't know Mr. Fletcher then. In fact, the monkey found out about fletcherizing before Mr. Fletcher did, and I found this monkey took the greatest pains in masticating its food. I thought I caught him one day, though, and I was very much shocked. I gave him some cherries, and he began to seize those cherries with both hands and tuck them into his mouth, and the cherries disappeared just as fast as he could tuck them in. I said to myself, "He will choke himself to death", but he didn't choke, and I was really very much surprised. I expected he would have an attack of colic in the middle of the night or something, and I would have to be ~~tax~~ up looking after him; but I looked around at him a little while later, and I observed something I had not noted before--enormously enlarged lymphatic glands. "Why," I said, "the poor monkey is getting tuberculosis." And I wondered I had not noticed it before,--enormous great lumps on each side of his face here; but I saw he was chewing his cherries very daintily here, took out the pits, then spit out every little bit of skin of the cherry, separated all the unwholesome, and indigestible parts with the greatest

care; and pretty soon I noticed he would make a quick movement, put one finger up to his cheek, and I saw one of those lumps disappear, and pretty soon another one went away; and I discovered he had stored up all those cherries in the monkey's great cheek pouches, and I found that that was what they were for--to accumulate food in. He simply stored them up there, and now, one by one, he was fletcherizing them at his leisure; so it was really a sort of substitute device for that by which the cow is able to ruminate. We can not do that. We must chew when we eat our food, for it is the only chance we have to chew.

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