

TALK TO PATIENTS

At the Sanitarium Parlor, Battle Creek, Mich., Saturday, January 20, 1912, at

8:00 P. M.,

By

J. H. Kellogg, M. D.

615.94

Ladies and gentlemen: I am glad to be with you once more. I have traveled ten thousand miles to get here, and I don't know any place in the world that I would more desire to come than to this very place. I met some time ago a doctor who said to me, "I would not like to be in your place. Now, in my place, in my situation, I go to see a patient, and when I get tired of him, I get up and leave and go off, but here you live in the midst of your sick people, and they can nab you any time they want, and you just live right in the midst of a multitude, and you can't get away a moment; I should think you would want to run away once in a while." I tell you, my friends, I never have the slightest disposition to go away. Every moment I have been away I longed to be home again. It was the greatest trial of my life to get up and go away and spend these four months, and I would not have done it if it had not been for you. (This institution is a beehive, and the policy of the management is to have the bees out all the time getting honey. We have some one doctor, sometimes two or three that are abroad, nearly all the time, hunting about to see if there is not some one more thing we can find to help some sick man or woman get well quicker. My ambition, you see, is to cure you up quick and get you away. We can not go off and leave you; ~~xxx~~ we are here; this is our home, and we have to stay here, and the only way to get rid of you is to cure you up and get you off just as quick as possible. The ambition of this institution is to get our patients cured just a little quicker.)

Every month I get a report which tells me the average length of time that patients have stayed--the average length of time that Dr. Riley's patients have been here, and the average number of days that Dr. Dryden's patients have remained; so we know whose patients are getting away, who is getting their

patients well and home quickest; or rather, at least, we know which class of patients are getting away quickest; and you know we find the ladies stay ten days longer than the men do. (The average woman stays in this in this institution 37 days and the average man 27 days.) I suppose the men have business at home, and they are in a hurry to get back to their counters at home; but the ladies do not come till they are sicker, they stay at home to look after the home, and stay as long as they possibly can, so when they get here they are pretty sick, but, as I said, (our ambition is to get our patients well quicker. We would like to get everybody well and started for home inside of fourteen days if it were a possible thing instead of having all these women stay on an average 37 days and the men stay 27 days, if we can get them home in 36 days or in 26 days, we have gained a day, don't you see. If we can cut that down to 35 days for the women, we have gained another day, and the only way in the world we can improve is by bringing to bear more powerful agencies, by finding means that will enable us to find out quicker and more completely what is the matter with the patient, and to check up the progress day by day and see whether he is really gaining or not, and then use means which will enable us to advance him more rapidly along the line.)

This time it was my turn to go abroad, and once in four or five years--this is my sixth visit through Europe--for the last thirty years I have been running over there to see what was new, and I have been going around among the notables of Europe; I have not visited the sanitariums--I have visited a few sanitariums but I don't expect to find much there, because the ~~sanitar-~~ sanitariums of Europe are not on the plan of ours here. Many of them are splendid institutions, but they are more of the nature of health resorts, and they do not undertake to do just the sort of thing we do here. Most of them are located in places which are celebrated for their climate, and more of the nature of the institutions at Hot Springs, Ark., or Virginia, and other establishments of that kind--more of the nature of health resorts.

Now, this institution is not a health resort, it is not a sanatorium. Perhaps it would interest you to know how it came to be called the Battle Creek Sanitarium. I am not going to make a long speech, but I will just tell you a

~~kix~~ word about that perhaps, as we pass along.

Something like 46 years ago

(History: 12 men, one of them J.H.K.'s father. Farmhouse of Judge Graves, bought. The Judge moved up the street where the annex now is. Board sent east for J. H. K. who took charge of the place when 24 years of age, etc. Original establishment a water cure in connection with a spring near by of soft water.)

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It was something more than a water cure; it was a diet cure as well--and a temperance institution--no tobacco, no tea, no coffee, no alcohol; it was a program of protest against prevailing evils of the time, and my, how it was laughed at. (Graham bread was served on the table, and that was a terrible thing--graham bread! Why, that was horse diet;--and oatmeal. That was the most extreme limit of absurdity--eating oatmeal. One man got hold of the idea and when he went home tried it, and after about a year he was asked how he got along, and replied, "Well, it is pretty good, but my wife told me to ask you when I got a chance if it would do any harm to cook it." He had been stirring up the oatmeal with a little water ~~me~~ and taking it as he would feed it to a horse. That was the beginning of this food reform idea, and graham bread and oatmeal was about all there was to it, you know. And how they did laugh at us. They used to point a finger at me when I went downtown along the streets--the boys would point their fingers at me, and call me a most ridiculous name--I hardly feel like mentioning it--it used to disturb me so much and it almost nauseated me to think about it. They used to say, "Look at that boy; he is a gizzardite." That is a new word I am sure you have not heard before. "He is a gizzardite." "Why do you call him a gizzardite?" "Why, he can't eat ordinary food. It must be because he hasn't any gizzard." They evidently had ~~the~~ idea that I ate graham bread and oatmeal because I lacked something in my digestive apparatus and could not digest ordinary food.

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Shortly after I graduated in medicine, the president of the board came to see me in the East where I was living then, and begged me to come and

take charge of the institution. It was a very serious trial for me to think about. I was a boy twenty-four years old, and to take charge of an institution, though it was not a big one, was a tremendous task for me to contemplate, and especially so because I was the most bashful boy you ever saw in your life. I could not positively meet anybody without my heart palpitating most tremendously, and the idea of coming to this institution, boy as I was, even though I had a medical diploma, ~~made~~ me feel exceedingly small--to come here and have to meet sick people and have to see upon the faces of the people a look of disappointment. You know, I saw it on some of your faces when I came in here tonight, but I got used to it so I don't mind it now; but to have to stand up and see a patient looking down at me, a small boy, and see how disappointed he was, I just could not do it. I would have a patient in the office waiting to see me, and I would go to the door--I could not go in, and turn around and slip into a closet down the hall, get on my knees and pray God to help me do that thing. I would have to do that thing sometimes two or three times before I could get through that door and stand up to meet that thing. I remember very well one man who looked at me. "Are you Dr. Kellogg?" He was a prominent lawyer from Detroit, and a professor of law in the University of Michigan. "Yes," I said, "I am Dr. Kellogg. Do you wish to see me?" "I don't know whether I do or not", he said, and turned his back to me and looked out of the window. He looked back at me occasionally two or three times. I was getting a little bit hardened by that time. I said, "I only came in to tell you that I hadn't time to see you sir," and stepped out. About three hours afterwards he sent for me. He wanted to see me because I didn't have time to see him, don't you see. So he was willing to see me. I am glad to say that a couple of weeks afterwards he came to my office and made humble apologies.)

I had another rather hard blow one day. I heard of a man in the office who said he wanted to see the old man, and they brought me in. He had heard the institution had been here some time, and he was not satisfied with the young men that were attending him, and they were good, tall, manly looking fellows, but he said, "I don't want to see you; I want to see the old man." So they brought me in. Well, this man looked at me--he was a gigantic fellow, six feet

and four or five inches tall, and he looked down at me. I began to examine him at once when I came in, and I was thumping his chest here, and he was looking down at me, and he looked around and said, "Are you Dr. Kellogg?" "Yes," I said, "that is my name." "Well," he said, "well. I expected to see a larger man, and an older man." "Oh, no," I said, "I am a very small potato." What do you think he said? He said, "That's a fact."

Now I never have forgotten that, and I want to say to you, my friends, that whenever I step into a room and meet some people that seem glad to see me, whenever I hear a handclap behind me or in front of me anywhere ~~about~~ about, that thing stands right up to my face--"You are a small potato; it is a fact." And I know it is a fact.

Now there has one thing occurred in this institution and I hope some of you have found it out, and we are trying to make it bigger and bigger all the time, and that is, this institution is trying to point the road back to nature. We do not claim to be able to cure anybody; we do not tell anybody we can cure them. We know we can not cure anybody; there is no doctor on earth that ever cured anybody except the great Master himself. We can not cure, do not pretend to cure. But there is a power that can cure. And that is the great hope of the sick man. It takes creative power to heal the sick man. The same power that made man in the first place has to stand right by him all the time and keep him going, and it is the same power that heals a man when he is sick. The greatest thing that any of you can do in this institution is to learn to cease to do evil and learn to do well, learn to do the right thing, learn to get in tune with the Infinite, as one writer has so beautifully said,--get in harmony with the great powers that are working with us, that keep the world revolving, that makes the sun shine, that controls all these great forces of Nature--get into harmony with that Power and let it work for us.

(We have tried to make this place as nearly a heaven for sick people as we possibly could, and I have been out as a honey bee looking for honey to find something more we could add, and I am glad to say I have found a good many things. This place is not perfect. We can improve it all the while. It is not a commercial institution; no dividend is paid out to anybody; every dollar

that is paid by you more than it costs to take care of you is used to make this institution a little better so as to help somebody else who would not otherwise be helped. And I find there has been a good deal of progress since I was abroad four years ago. I have been visiting the great clinicians of Europe, the great specialists, the greatest bacteriologists of Europe, and the greatest internal medicine men, and the greatest surgeons of Europe, and from these men and from their best assistants, I have endeavored to get in touch with all the progress that has been made since I was abroad before; and a whole lot of things that never get into literature, that do not get into medical books or publications--we keep in touch with those, of course, and to compare notes, and I feel that it has been a very profitable time. I have worked very hard; have not been taking any rest, have not been on a vacation; I have worked very hard, worked every day, and every minute that there was to work. I have not stopped work on the cars nor on the train, nor anywhere, not even on the boat; I have worked right straight along, days and nights too.) The last three days before I left London I had hard work to finish up my work, and the last forty-eight hours I did not close my eyes--not one wink of sleep. The last four days I had seven hours' sleep, and worked every minute of the rest of the time. In fact, I didn't even stop to ~~take a meal~~ eat one day, and the other days took only one little, small meal, just a small bite of food; so you see I have been working, and I was glad to find I had the endurance and could do it. I was very glad to see I didn't feel any worse for it. I went aboard ship, took a night's sleep, and felt just as well as I ever did in my life. (And I come back feeling fresher and hardier, and more full of vim and energy and working power and hope than at any time I can remember in my life. I do not remember in my life time to have felt so well and so capable of taking hold of the work I had to do as I do now.)

As I said, I found a good many things, a good many new ideas that have been developed in one corner and another. Here is one man who has spent his whole life to evolve one idea, and I hunt up that one man, and I say, "Tell me what you have found." He says, "Well, I have been working a long time at this thing; I have been working a long time, and I don't know--" meantime, you see, I am looking around, looking for something, and pretty soon begin to find some

sovereigns, and count them out--"What is your price, sir? How much shall I pay you for your time? If you haven't time, have you got an assistant that is trained who will tell me what you have found out? Whatever you want in the way of remuneration is ready for you."

Now, I have spent a good many thousands of dollars. I might say I have spent,--well, tenthousand dollars won't begin to cover the expenses I have incurred in this trip for the purpose of getting hold of every idea, and every method that money would buy, or that by any possible inducement could be secured. I have gone like a Pinkerton detective into every medical center, picking up a little hint from one man that would lead me somewhere else; and it would seem, my friends, when I get up in the morning and asked God to keep me for that day and to lead me to the springs of knowledge that would help my sick people at home that I was out on this errand for,--it has seemed to me as though an angel went before me and led me along. I would start out with one little clue, and I would meet a man, and in talking with him, incidentally he would say, "By the way, do you know such an one?" "No, what can I learn from him?" "Well he is the man who can tell you all about this thing." The very thing I was after and wanted light upon, and perhaps the man I found there was a man who had been delving away for twenty years to find one thing and he had just discovered it, and he knew the one thing but didn't know anything about the practical bearing of it from our standpoint, and I sat down with him and day by day spent what time I could with him, and took notes to find out what he had. And I went home to my hotel and dictated to a stenographer or wrote it down myself. I had my stenographer, Mr. Ashley, meet me at New York because I was loaded up so full I was afraid I would lose some of it overboard before I got home. So he met me, and I began to string off, to unload, and to elaborate my meager notes so that not one single thing should be lost.) (This knowledge is fresh,--knowledge that will help a sick man, that will relieve pain, that will relieve suffering, that will help a mother that has got children dependent upon her to get back to her position of usefulness and responsibility again, and to enable her to carry on the work of training the little ones efficiently--that is precious knowledge, my friends; it is worth more

friends; it is worth more to me than gold or silver or any possible inducement of that sort. I have been on a keen search for everything helpful I could find, and I am glad to tell you I came home this time, I think, with a load of honey five times as big as I ever brought before, and I hope some of you will have the benefit of some of it.)

I am going to see everybody that wants to see me. I can not see you all tomorrow. But if there is a single man or woman here ~~xxxxxxx~~ that is not getting relief, that is not getting rid of your difficulties, I want to know it. Don't you get discouraged and go home without letting me know about it; not that your doctors are not competent, because they are competent. We haven't an incompetent doctor in this place; we would not keep them here. They come here good doctors, and they have had a serious experience before coming here. Every single doctor in the institution here was trained here, every single one. You could not go out into the world anywhere and find a set of men and women who could come into this institution and do what the doctors here are doing. It would be an utter impossibility to find them. Some time ago some wealthy men raised \$500,000 to build a sanitarium to include every advantage of this institution, and about six months ago they wrote to me and said, "Doctor, our institution is done, and now we want you to recommend to us a man that can run it." I said, "Well, my friends, you have begun at the wrong end of your enterprise; you ought to have had that man before you started; you ought to have had him right on the job all the time, and you can not find him; he doesn't exist. If he does exist anywhere--I mean the man that is available--if such a man existed anywhere, he is doing it now; he is somewhere where he can not be spared. But if you will hunt up a man that you think is capable and send him up here and let us have him for five years, we will train him and send him back to you with some hope that he can do what you want to have done." It is a thing that can not be done in the ordinary way. It is a system that requires special training and special skill.

Every doctor on these premises was trained right here. Our doctors all have had all the advantages they can get at any medical school. (We formerly had a medical college here wheremost of our doctors were trained; they have had

all the advantages of that school as well as of the Sanitarium. Some of our doctors have the highest honors that can be gotten in the world, or that any medical man can have. They are quite equal to any other medical men that can be found, but in addition, have all this Sanitarium knowledge, knowledge of these special facilities and their use and a knowledge of everything connected with the Battle Creek Sanitarium system.) (Don't get discouraged and go home. I don't want any of you to go home not radically improved unless I have had a chance to add my little mite in some way, and I want to say to you that the cases are very, very, very rare indeed that can not be helped. Every man that has got indigestion can be cured of that indigestion; every man that has intestinal trouble, inactive bowels, or any trouble of that ~~xxx~~ kind, every single one can be relieved. You need not think because your case is a little obstinate or old that it is hopeless; it is not hopeless; you can certainly be helped. If you have got ~~the~~ nervous dyspepsia, neurasthenia, or anything of that sort, you can smile and be thankful you have not got a cancer or something of that sort that is bad. Cancers are bad, you can not expect to cure them ~~always~~, but even those are curable if they are taken hold of in time.) One of the things I have been after on a keen search is to find new methods, and I find there are some things succeeding. If you have got rheumatism, you may expect to get over it and be cured. (When I was in Austria I heard a tale that seemed to be absolutely beyond belief. I heard there had been a discovery made ~~by~~ that radium would cure rheumatism, regular old fashioned, chronic rheumatism. I said, "That is too much to believe of radium; it is a wizard, but I don't believe it is going to cure rheumatism." But by and by I heard that Dr. Von Noorden had ~~been~~ experimenting for a year and a half, and he had written a paper in which he gave a report of cases that were cured, and he was wonderfully enthusiastic about it, and I went to see him, and, sure enough, there they were. I went there the next day at twelve o'clock, and there was a room full of rheumatics. He said, "You can look at them." Here was a lady who put out her hands, stretched out her fingers, and she was smiling all over she was so tickled. I stepped up to her and had a little talk with her. She said, "Two weeks ago when I came here

my fingers were tightly closed, like that. I have not been able to open and close my hands for a year. I could not do my housework, could not button up my children's clothes, could not do the things I wanted to do at home, I could not knit and could not sew. Now just look at it. Why, I could not dress my little ones, but now I can do everything. Just look at my fingers." And she was just as happy as could be. Then there came along a poor man who had been brought on a stretcher six weeks ago, and he was put to bed to rest for two weeks when he felt a little better, and then for two weeks after that he didn't improve a particle; then he was put under radium treatment, and there he stood, going all about the room, and there was not a joint in his body that was not nimble and limber, and he had not an atom of pain.) Why, I could hardly believe my eyes. So from day to day and from day to day I came in to see these rheumatics, and I said, "I am going to headquarters to see what there is about this and where this radium comes from." I found it came from Joachimstahl, away up in the mountains. I spent a day and a night getting up there, up to where the radium came from, where it was originally discovered. There is more there, I suppose, than anywhere else in the world, that is, so far as is known. I found the government had established an institution, put up a large building and had a skilled physician in charge, a responsible man to superintend it. And a spring came out of the mountain that had gotten charged with radium, and they were taking baths in that water, and they were coming there and getting well. This government physician told me that eighty per cent of all rheumatics that came there were cured, and that the more chronic they were the better. That is just what he said-- 80% of them were cured, and the more chronic they were the better.) Well, I had the privilege of seeing some of them. A man came in there paralyzed, a man who sat at the next table to me at the hotel. He was a German merchant, completely paralyzed from his waist down. He had been there two weeks, and then he walked into the dining room. I saw him myself wheeled around in a wheelchair by his nurse. He came walking into the dining room, sat down, and said, "I am wonderfully better." A little girl who had not walked for three years came there and in ten days she was able to take steps, and in six weeks she walked a thousand

feet and was able to go upstairs and all about the hotel. I saw quite a number of people who know of the case and testified to me of the change.) (So radium has power in it. It is awfully expensive. Fifteen grains costs \$100,000; that is, one quarter of a dram costs ~~xxx~~ \$100,000.) (I did not bring a pocket full home, but I brought some; I brought enough so that it is possible to give here in this institution just as powerful treatment and just as thorough treatment as is given at the original place at Joachimstahl. I took care to do that, so that we can even produce a dose more than twice as strong, if necessary four times as strong as the dose that they ever use in Joachimstahl. I inquired how long they thought it would last, and after a little computation, the government official said, "Well, the quantity you have, as nearly as I can determine, will last two thousand years", so I thought it would answer our purpose. But I said to make sure I would double the dose; so I doubled the quantity, and have now enough to last four thousand years and give good, full doses; so we have got a good supply. Fortunately, it is a very tough and enduring kind of substance. While carrying this radium around in my pocket--it was so precious I didn't like to trust it to the common carriers--it was rather interesting for me to realize that I had in my pocket there a little bottle in which was a substance that really was doing eighty horsepower of work every minute, all the time, day and night--doing the work of an eighty horsepower engine. Of course, you can not make it do ~~it~~ just the same kind of work; but the work that is being done by the radium is the equivalent of eighty horsepower. So practically that is enough to move the stiffest limb of almost any rheumatic we may happen to find.

Now, my friends, laying all pleasantries aside, I want to say again to you that I am most delighted to be with you again. Here is the ~~only~~ place where I am happy, and I am not happy in any other place. (When I was a boy sickness and everything pertaining to sickness was so dreadfully distressing to me that I could not endure it. I used to nurse my mother's head when she had headaches, and she had ~~they~~ awfully bad, and she said I was the best nurse she had; so I like^d to do things for people who are sick and suffering; but to see blood, to have to meet a bad odor or a bad looking sore, or anything of that kind, was

positively overwhelming to me. I would have to look at the wall, turn around and take hold of something to steady myself to keep from tipping over; and my poor, sensitive stomach would turn upside down on the very slightest suggestion of anything that was unpleasant; so that was the way in which I approached professional medicine.) (When I was a boy and my mother asked me what I was going to do when I was grown up, I said, "I will do anything but be a doctor, Mother.")

(When I was 24 years old, I found myself in charge of this institution, and I said I would do the best I could with God helping me; and I don't believe there was fifteen minutes all day of my conscious moments that I was not sending up to God a most earnest prayer to help me do something for this sick man; so I went on from hour to hour and day to day pleading with God to help me to do something for these poor, sick people. I didn't know what to do when I saw a poor dyspeptic coming along, because we didn't have any means of knowing what was the matter with him. So I went to Europe to hunt around in the laboratories to see if I could not find some way to find out what was really the matter with the stomach.) (And this was the first place in the United States where this system of examining the stomachs by the test meal, and then examining the products of digestion, was put in operation. That was more than twenty years ago. I don't mean to say that nobody had done it, for there were two or three, or a few killed chemists that had done things of that sort; but this was the first place where it was done methodically, and systematically, and where there was a thorough system organized for carrying on that work in the United States; and it was because we must know the actual facts, and the last word.)

Now, while I have been abroad this time, I have spent ~~xxx~~ thousands of dollars in an apparatus to find out exactly what is the matter with a man's heart. I paid 4000 marks for one little instrument to tell exactly ~~what~~ is the matter with a man's heart. Now we can tell pretty nearly when we listen with the ear, but there are a few things we can not tell; but here is an instrument a man takes hold of with his hands, and this instrument writes down on a piece of smoked paper, or rather a photograph comes out that tells us exactly what that man's heart is doing, what is the matter with it. It is one of the most marvelous products of ingenuity in the application of electrical measuring instruments,

most delicate electrical measurements; and it is based upon the fact that the heart produces an electrical current when it works, and when there is a disturbance of the heart there is a disturbance of those electrical currents, and this simply measures those electrical currents and takes a picture of them, shows the disturbance, and tells us what is the matter. I have been waiting for this a long time. Twenty years ago the discovery was made that led to that. I went straight to London to see Dr. Waller, of St. Mary's Hospital, London, who was the discoverer of it,--I went there to see what was done about ~~it~~ it, but it was impractical. Step by step, I have been watching that develop, and at last I reached Berlin just in time to see the first absolutely thoroughly perfected apparatus for doing it, and I said, "We want that right away", and I secured it, and in a few days it will be here. It is coming through the customs.) Just the same thing is true of other things. We know a good many things about the stomach, we can tell a good many things about it; the X ray has been giving us great help, but there were some things we didn't know. (Now, when Mr. Harriman was sick and went away to Europe, he went to all the greatmen of Europe to find what was the matter with his stomach, and they could not tell him. One man he did not reach, but ~~this man~~ made a motion picture of his stomach. He devised an apparatus by which he could catch the stomach in its work, and he could see the stomach actually going through the various phases of digestion. And that picture was taken, thrown up upon the wall, and just as soon as that picture was seen and could be analyzed and studied, it was apparent what was the matter with Mr. Harriman's stomach, and Mr. Harriman then came home to die, because it was in a hopeless condition. It could not have been found out in any other way. Now that instrument was not quite perfect, but it has been gradually perfected, and some suggestions made by our Roentgenologist, Dr. Case have led to its further perfection, and we will have here in America in a few days now the very first and most perfect machine that has ever been made for accomplishing that thing,--the very first that has ever been in America; so a man can stand up there with a mirror before him, and he can look in it and see his stomach at work; and at the same moment, the motion picture machine here takes a picture of his

stomach and records it, puts it down so that it can be reeled off on a screen, and the whole world can see what his stomach is doing. That is only just a little beginning. I have had so many boxes that I stayed a day in New York hoping to get my boxes through, but I had so many things the customhouse officials had never seen before that they declared they had to spend some time to look it over, and send out and get their experts to come in to help them; so it was impossible to bring it all along; but in a few days they will be here, and I want to say to you I am here at your service. The greatest delight of my life, the one delight of my life, the one thing I live for is to serve my sick friends.) I thank you. (Loud applause).

v-1-22-12.

QUESTION BOX LECTURE

At the Sanitarium Parlor, Battle Creek, Mich., Monday, January 22, 1912, 8 p.m.

by

J. H. Kellogg, M. D.

For thirty-six years I have been standing up to this question box once a week, when I have been at home, and I always find something new and interesting. It is astonishing what capacity the chronic valétudinarian has for asking questions. I always find something new, and I presume we shall find something new tonight. If I find something I can not answer, I will just tell you frankly I don't know; I don't pretend to know it all; and when I find a question here I can't answer, I can not sleep nights until I find the answer to it. That is what I have been off to Europe for. I have been spending four months trying to find answers to some of the questions asked me here that I could not answer, and I have found the answer. The most difficult questions that have been asked me have been concerning digestion, and the bowels; and the marvelous discoveries that have been made within the last ten years I think make it possible now to answer every question, and to answer it right, and to find the way out. And in the course of a few days, or the next few weeks, we will learn a good deal more about it. The first question I discover here is,

Q. How is radium applied?

A. Radium is applied in three ways. My radium just arrived this afternoon, so we are going to get right to business. We will have it going shortly, and some of our rheumatics will begin to limber up. Radium is applied in three different ways. The first method by which it was used was by direct applications to the body, either upon the surface of the skin, or by opening the tissues and putting it down underneath, burying it up for a while in the tissues. That method has been employed. This method is used for malignant disease. This is its least important purpose, least important use, for the reason that radium acts by means of rays that it sends out called a radioactive substance. These rays that are produced by radium, that are sent out by it are exactly the same

as those that are sent out by the X ray. The X ray tube produces the same kind of rays, and it can be produced very much more economically and in much larger quantity and under better control. The only advantage in the use of radium is that it can be applied to some internal parts. It can be put into a little pencil, for instance, and it is powerful in such small quantities and can be put down the throat in the esophagus and so can reach a point that can not be reached with the X ray; but recent improvements in the X ray has made it possible to reach even these parts; changes in the methods of applying the Roentgen rays has made it possible ~~xx~~ to reach even these deeper parts to a very wonderful extent. Large internal tumors are being dissolved now by the application of the X ray applied in powerful doses. The difficulty heretofore has been when the X ray was applied in such powerful doses, it would destroy the skin. We have found out now how to protect the skin, how to make the skin invulnerable against these X rays, so we can apply it to the deep parts. So, as I said, the radium application in this respect is not so important as it formerly was. The other methods of application are by means of water. Well, I should say there are four methods--three other methods. One is by drinking the radium. Radium is the heaviest body known. It has a molecular weight of 226. The molecular weight of platinum, the next heaviest body, is 200, but radium is 226. Now, radium is decomposing. It is a very ancient element and has got to the end of its rope, so to speak, so it is decomposing, breaking up, and when ~~the~~ it breaks up, the molecule of radium changes ~~into~~ into two substances, one of which has a molecular weight of 222 and the other has a molecular weight of 4. Now, this is what is called radium emanation, and this substance is radium B. One is radium A, and this is radium B, and this breaks up again to 217 and a molecule of emanation. And this is radium C; and another breaks up into 214 and Radium emanation D; and we have radium F; and so it goes on down the line, and I was told ~~that~~ by one scientist that they have already identified 22 different radiums in this series each of which throws off an emanation. Now, it is the emanation that is the therapeutic part that is thrown off in the ~~the~~ splitting up of the radium molecule that is useful for treatment. This can be absorbed by water, and can be mixed with the air. It can be made to combine with anything, because it is breaking

up and worn out material; but it is sending off rays continually, and light. A piece of radium shines in the dark just like a sun. It does not absorb light from the sun and then throw it off, as some bodies do; but it has light in itself and is throwing off light continually day and night, and it goes on doing that thing all the time through thousands of years. If this chalk were radium and it was breaking up in that way, it would reduce in its weight one half in two thousand years. If I had here two drams of ~~such~~ radium, in 2000 years I would have only one. So you see it is very durable, lasts a long time; and in another 2000 years I would have half a dram, and in another 2000 years a quarter of a dram; so it goes on losing one half every two thousand years. Now there are some other substances which ~~are~~ allied to radium. Thorium, for example, is a substance allied to radium; but it loses half its value in ^{twenty} ~~fifty~~ years, so that it ~~xxxxxxxxxxxx~~ dissolves and ~~braks~~ breaks up 100 times as rapidly as radium does. It is just as valuable and powerful while it lasts, but one does not want to invest in thorium, because it depreciates one half in twenty years; but radium is pretty safe, because one would not mind what would happen to his radium 2000 years hence, you see. If it lasts 100 years or so, it will do very well. I shall show you some experiments after a little that will interest you. This radium may be dissolved in water, that is, the emanation may be dissolved in water, then by drinking the water we would get this radioactive property at work within the body; but it is absorbed into the blood, goes to the lungs, and is thrown off through the lungs, so that it is lost in that way, and it will take an enormous quantity of radium to supply the body ~~enough~~ and keep it supplied so we have to overcome that difficulty. I have made a study of the statistics of the matter with different scientists, and have gotten hold of one principle which I hope will prove very valuable; and that is this: A negatively charged body has the property of attracting radium, so I propose when my patients drink radium, we will charge them negatively with our big static machine, make them negative so they will hang onto the radium they have got, you see, and it won't get away from them. Then with the radium bath, the radium emanation may be dissolved in water, and we may take a bath in the radium; but the trouble is

when you take it in the ordinary way, the emanation escapes very rapidly from the water into the air of the room; so we shall charge our bath negatively, don't you see, and so hang onto it, which I trust will ~~be~~ prove to be a very valuable improvement. I discussed this with various scientists, and I found they all approve of the idea most heartily, and it has not yet been tried, and of course it has got to be tried to make sure of it; but I think it is just about as certain as anything can be. Another way is by injection, and I think this is one of the effective methods of using it; and I saw it in use in various places in this way, at Von Noorden's clinic, and one or two other physicians I found using it in this way, and this proved to be very valuable. The so-called "trink" preparation of radium--radium in water, has been found to be very valuable in rheumatism. There are certain wells in Europe which have proven during the last three or four years to be of great value in the treatment of rheumatism--natural springs. They have proved to be wonderfully valuable in rheumatism. Perhaps there would be two wells in the same town, and one would cure rheumatism and the other would not; and they have discovered that all these great wells in Europe that cure rheumatism have radium in the water. Most of them have very little radium in the water. One or two have a great deal of radium, and up at Joachimstal in Bohemia there is a spring that pours out a stream of water continuously which has 100 times as much radium emanation in it as any other that is known,--50 to 100 times as much, and the physician in charge of this place, the physician of the Austrian government who is the superintendent of this place told me that 80% of all rheumatics that come there and take the baths in this water are cured. I said, "What, old chronic cases?" "Yes," he said, "the older the better." Now, these baths can be reproduced anywhere if you only have the radium. It is the radium that does it, and the emanations in the air can be produced anywhere by means of proper apparatus and having a supply of radium sufficient for the purpose. We have both the apparatus and the radium, and I spent quite a portion of my time when abroad in studying with scientists and making observations on the spot where radium was employed, so as to become thoroughly familiar with all the peculiarities of this new method, and I think

we can do it and do it just a little better. Now, this has to be said with reference to radium--that it is a palliative; it is not a permanent cure. It is this way. When a person has a serious chronic disease, he is like a man whose house is on fire. It is a case of a house afire. Now the application of radium or any palliative measure of that sort is simply calling the fire department to put out the fire. For the house we have to call in a carpenter afterwards to repair the house, don't you see. The fire department can put out the fire, but we need the carpenter to rebuild the house; so radium, while it will stop rheumatism, does not rebuild the man. Change of habits, proper diet, baths, massage, exercise, electricity--all these other things are essential for the completion of a cure. I have found people who were cured by radium had to come back every year to be cured again, because rheumatism is a thing we get at the dinner table. We do not catch rheumatism from the water or from the climate. We swallow rheumatism, we eat it at the dinner table, and the breakfast table; that is the way we get rheumatism. Now, if we once get rid of rheumatism and want to keep rid of it, we must stop eating it, we must stop swallowing it, and that is the most important thing of all to do. So by a combination of these palliative measures which lift the man that has fallen into a pit out of the pit and put him up on terra firma again, by means of these measures combined with the correction of habits, and the right living that we try to learn about here, and we endeavor to get ourselves accustomed to, getting our feet in the right paths, by a combination of these two things I trust we shall obtain the complete and perfect cure.

Q. Which is the better food for hyperpepsia, bananas or potatoes?

A. They are both good. All good foods are good for a person that has hyperpepsia, and for a person who has hypopepsia, and for a person that has apepsia, and for a person that does not have any of those things whose stomach is in a healthy condition--who has eupepsia. Good food is good for everybody; but there are certain conditions under which it may be certain foods are preferable, and certain foods must be discarded for the time being. Now the person who has hyperpepsia needs to have certain foods, and certain foods he ought to discard

forever. Hyperpepsia is a condition in which the stomach makes too much gastric juice, too much hydrochloric acid. That is what makes the hyperpepsia, or the hyperchlorhydria which is the better name--too much hydrochloric acid, in other words. Now there are certain foods that cause the stomach to make an excessive quantity of hydrochloric acid. Prof. Pawlow, the great St. Petersburg physiologist, in experiments upon dogs, found that there are certain foods which cause the stomach to pour out an enormous amount of hydrochloric acid, and the food par excellence to make hydrochloric acid is beefsteak. Mutton chops, all kinds of meats, and beeftea, bouillon--of all things that exist on the face of the earth there is nothing that will stimulate the stomach to make hydrochloric acid and make acid to such an extent as Armour's extract of beef, for example; or Liebig's extract of beef. Now, these extracts of beef represent simply the poison that is in the beef. There is a reason why this hyperpepsia exists. Meat is full of germs, is a substance that is full of dangerous enemies to human life. Every morsel of meat that you ever put into your mouth, my friends, every morsel you ever swallowed needed disinfecting as bad as ny backyard you ever heard of. Meat is in a process of decay. Why, beefsteak is simply a piece of a dead beast. And it does not make any difference whether that dead cow is lying in a fence corner somewhere or hanging up in a butcher shop--it is the same dead cow; and a piece of a dead cow that is undergoing decomposition does the same harm whether a turkey buzzard finds it in a fence corner, or whether the butcher cuts off its life and sends it to you all done up in a piece of brown paper to be served up to you on the table. It is the same kind of thing, in other words. Now, I am speaking thus frankly and plainly because you can see at once that there is no exaggeration about it--a decomposing animal is a rotting beast, and it is the whole story and the sound fact; but we do not like to call a piece of beefsteak a piece of rotting ox or rotting cow, or a mutton chop a decomposing sheep; so we call it prime beef, don't you know--prime beef. We say that it has a gamey flavor. Yes, well it has a gamey flavor, it is gamey, there is game there, and there are hunters there too. There are some lively germs there that are after you. A piece of beefsteak put under the microscope is seen to be veritably alive with bacteria. I called upon one of the greatest bacter-

iologists in the world, Prof. Distaso, in London, some weeks ago. I heard of him away over in Vienna. I was looking for that man when I started for Europe; I was more desirous of finding this man than anybody else, but I didn't know where to locate him. The man I wanted to see I expected to find in Vienna, but when I got there, I found he had just died a little while before I got there, so I missed him, Prof. Escherich; and I was very, very sorry indeed that I missed the opportunity to get the benefit of his great knowledge. I have what he has written, I have read his books and everything he has written, but I hoped to get some further information that had not yet been formulated into sentences and gotten printed into books; but I didn't learn just what I wanted to know. But I finally heard about Distaso as the man who knows more about anaerobes--the germs which make the trouble in the intestine and the dyestuff that colors the skin--just as like as not there are spots on some of your hands. Look into the glass and see if there are any brown spots under your eyes, and the dingy skin which you try to cover up with cosmetics of various sorts. Now, that is all due to a brown dyestuff which is manufactured in your colon. This is recognized and called Brenz Catechin, which is made down here in the colon by those bacteria, is the product of a poison-making germ known as an anaerobe, because it lives without air; it lives in a part of the body where there is no air; it can not live in the upper part. It is these same anaerobes that cause decay of the teeth. That is why the dentist tells you to keep everything out from between the teeth, because they had hide in those little crevices between the teeth and grow in those places where there is no air, you see. If you keep your teeth perfectly clean, so there is no place for them to hide around there, they won't decay. These are the germs that produce so many different forms of disease, the germs which make the bad odors ~~knax~~ which are formed within the interior of the body--the foul gases, and the terrible poisons, the skatol, indol, pyrrol, and all these horrible poisons that are produced in the alimentary canal are caused by these germs. Well, I heard that Prof. Distaso knew more about anaerobes than any other man in the world, and I got the testimony of Prof. Metchnikoff upon that point--the great Prof. Metchnikoff. This man had been his assistant and right hand man for several years, his first assistant, and gave special attention

to anaerobes, so I found him in London, and I went into his laboratory and worked with cultures of bacteria, studying all kinds of things day after day, and I brought him one day a specimen from the intestine of a man that I met in London, and I thought needed an examination, of that sort, and the professor looked at it for a moment--"Bad germs," he said, "bad germs -here is Welch's Bacillus." Do you know what Welch's bacillus is? Prof. Welch, of Johns Hopkins University some years ago discovered a peculiar germ. This same germ had been discovered right here in our laboratories some years before, but the discovery was not made public; but after Prof. Welch made his discovery, I discovered it was the very same germ that we had discovered here. Our bacteriologists did not have the wit to take advantage of the fact and publish that discovery or the honor would have been given to the Battle Creek laboratory instead of to the Johns Hopkins laboratory. Well, Dr. Welch discovered this germ, found it in meat--butcher's meat, in dead flesh, and in every piece of butcher's meat he could ever examine, that was always there. And this germ was a germ that produced most deadly poisons, and produces along with these poisons a horrible gas in enormous quantities. Now, to show you what that will do, I will tell you a little story I saw in the newspaper not so very long ago. A man had a lion he had trained. He sold it to a big circus. And three years after he sold the lion, he happened to be in the town where the same circus was exhibiting, and he stepped up to the cage to see his old friend, and he found the lion was asleep. He put his hand into the cage and touched the lion's paw. The lion awakened suddenly, and seized his arm before he discovered who it was, and he crushed his arm in ~~in~~ his jaw so the flesh was entirely crushed, and when he was torn away from the lion's grasp, his arm was terribly mangled. He was taken to the hospital, and in three days he was dead. His body was completely bloated up so it was beyond all recognition. Everywhere in his body was found Welch's bacillus. That was the thing that killed him; it was not the lion's bite that killed him; it was the Welch's bacillus that the lion's teeth had gotten from the meat which the lion had eaten and it had vaccinated him with those germs and they had grown throughout his body and the poisons had killed him. So you see that it is a very real thing. "Well," he said, "I find here Welch's bacillus." "Well," I said,

"what should that man do to get rid of the Welch's Bacillus?" "Oh," he said, "he must stop eating meat." "Why should he stop eating meat?" "Because meat has got them in." "Well," I said, "then everybody that eats meat has got Welch's Bacillus?" "Of course they have, of course they have." "Well," I said, "do you eat meat?" "No, indeed, I don't eat meat--no indeed!" That is what the greatest bacteriologist in the world said to me. I don't think he ever heard of a vegetarian. He is an Italian, speaks but little English, and I don't know that he ever heard of vegetarian societies or movements, or anything of that kind, but he made up his mind from his examinations and study of meat that he didn't want any Welch's Bacillus in his intestine making poisons. "Well," he said, "tell that man to stop eating meat and in a few days those bacteria will disappear." So I told him about it, and I don't think he will eat any more. I said to Prof. Distaso, "Well, doesn't your wife eat meat?" "Oh, no," he said, "we don't eat meat at our house. Oh, these English people are all poisoned; they think they have got to eat so much meat. Why, you see them about here--young ladies, just young ladies, young women thirty years old, and with great brown patches on their hands and big brown patches on their faces. They are all poisoned, terribly poisoned." Now, I had never said a word to him about what I had observed in my observations here at Battle Creek, but simply went there as a student, and I didn't tell him anything, because I wanted him to be absolutely unbiased and give me all the original information I could get from him, get the facts that he himself had worked out from his study and experience, and I am telling you just what he said to me. I said to him, "Do you know Prof. Tissier?" "Oh, yes," he said, "Prof. Tissier is my friend", and he gave me his address. "We worked together in the Pasteur Institute for years." Prof. Tissier was his predecessor as the assistant to Prof. Metchnikoff. "Well," I said, "doesn't he eat meat?" "Oh, no," he said, "oh, no, he never eats meat." "Well," I said, "does Prof. Metchnikoff eat meat?" "Yes, he eats meat, but I tell you what Prof. Tissier said one day. Prof. Metchnikoff eats a pound of beefsteak and lets it rot in his colon, and then he drinks a pint of sour milk to disinfect it. I am not such a fool. I don't eat the beefsteak." Well, now,

I know that what I am saying will sound very curious, peculiar and rude to some of you. It seems perfectly ridiculous to stand up and combat such a conventional practice as eating beefsteak. Why, beefsteak is supposed to be the very quintessence of good food, strong food. Why, of course, if you want to be strong you must eat a strong animal, you see. The ox is strong, hence if one wants to be strong, he must eat a strong beast. An elephant would be the proper thing, wouldn't it? That is a cannibalistic idea, my friends, you see. We had a grandson of a cannibal here once as a student. He is now the ~~gx~~ medical director of the Maoris in New Zealand. He was a Maori. His father was a Maori and his grandfather was a great Maori chief. He had eaten missionaries too. And I said to Pomare one day, "Pomare, tell me why your grandfather could eat missionaries. Did you ever ask him anything about it?" "Why," he said, "Yes. I said to him one day, 'Grandfather, why did you eat those missionaries?' 'Well,' he said, 'I wanted to be good like the missionaries.' He says, 'You know when I killed a chief I ate him so I would be brave like him, so I would be strong, so I would have courage; and by eating him I would get his qualities, don't you see?'" And he got more too by eating him. Once there was a suit in Honolulu where they had the same customs, the same traditions. A man claimed a certain piece of property, and another man said it was his, and they had a suit at law about it. It was finally given to a man on his own testimony. The man gave various reasons why he owned this property, and the final, convincing reason that the Judge thought was quite sufficient was this: "I ate the former owner." When he ate the former owner he got everything that belonged to him, don't you see, and on the same principle we eat the ox, don't you see,--we want to be like the ox--oxified, as Prof. Bronson Alcott used to say. Well, that is something of a diversion. Prof. Distaso I found did not want any beefsteak because of the Welch's bacillus that was in it, and so it is a good thing for us to know that when we eat beefsteak the stomach makes a large quantity of hydrochloric acid. What for? To disinfect that beefsteak. That is what it is for--to disinfect the beefsteak, and that is the reason why there are some people who like their meat very high, like it to have a haut gout; it stimulates their stomach. The

more rotten it is, the more stimulating to the stomach it is. That is the fact about it. The more highlyxx stimulating it is, the more advanced it is in decay. The professors of dietetics have been telling us for a long time that meat must have time to become tender, that it must be matured, must be ripened, and this ripening process, like the ripening of cheese, is simply a process of the multiplicationxxxx of germs, and a process of putrefaction--nothing else in the world. Why, when an animal is killed, when death stiffening occurs, when rigor mortis occurs, the flesh becomes tough; it becomes tough, and from that moment that flesh is never tender again until it rots. Now, the flesh of a living animal is very tender. A surgeon when he is working cutting the flesh has to be very careful. He puts a pair of forceps on it, crushes it; if he is careless with his fingers he will crush those tender muscles which are almost like jelly sometimes, but when that flesh dies and rigor mortis occurs, then it becomes tough and is like leather, and is never tender again until it rots, and that is the reason why you like your beefsteak to stand awhile--so as to get tender; and it is the custom in some places to hang a turkey outside the door by its head and let it hang there till it drops off before it is ready to eat. You have heard of that. Why does it drop off? Why, because it is so far advanced in decay. It has simply rotted. Well, now, the stomach makes an enormous quantity of hydrochloric acid when a person eats meat for the purpose of disinfecting that meat. It is a preventive process. Now, if a person has too much hydrochloric acid already, why, it would be just as well not to eat beefsteak, wouldn't it? But you say, "I feel better when I eat beefsteak." So you do, because the beefsteak combines with the hydrochloric acid just as soda would, and neutralizes it temporarily. It causes the stomach to make too much hydrochloric acid, but at the same time it neutralizes it. "Well, what is the harm then?" you say. The harm is your stomach is being stimulated more and more and more, and by and by the glands being so overworked will be worn out, will undergo degeneration, then you have gastric catarrh first thing; next comes ulcer, for the hydrochloric acid may cause ulcer; and next comes cancer; and that is the way it happens that one third of all cancers are in the stomach and intestine as a result of this overwork and decay and degeneracy of the tissues. Now there is another food

that has an opposite effect. Fats, particularly vegetable fats have the effect to cause the stomach to make less gastric juice. Olive oil taken into the stomach, for instance, when the stomach is empty will cause the stomach to produce no gastric juice at all; and if olive oil is taken and then other food is taken, the olive oil lessens very greatly the amount of hydrochloric acid produced. So with reference to bananas and potatoes, they are all right for a person whose stomach has been educated properly. If a person's stomach has been educated to make too much gastric juice and you eat ~~much~~ ^{bananas} and potatoes, you are very likely to have sour stomach. That sour stomach is not due to the fermentation of the bananas and potatoes, but to the fact that the stomach has got more acid than is needed by the ~~much~~ bananas and potatoes, so ~~there~~ there is acid there free and in combination, and you feel the effect of it in your stomach, and you say, "Oh, my stomach has soured." It has not soured. There is no fermentation at all. There is simply more hydrochloric acid than you need, and all you have to do is to add a little more fat; take rich cream with the potatoes, or some butter. It is not well to fry it into the potatoes, or to melt it into the potatoes, but take the butter at the same meal along with the potatoes and that difficulty will be overcome.

Q. Which is the more completely digested, animal or vegetable food?

A. Now, it is not a question of digestion. It is a question of what happens outside of the stomach, not what happens in the stomach. For many people meat is easily digested; it is one of the most easily digestible of all foods; there is a very good reason why meat is easily digestible; it has been digested once already. Here is an ear of corn; the pig swallows it, digests it, rolls it around in the mud for six months, then you eat it in the shape of a spare rib and you are simply taking into your stomach what the pig has had in his stomach before. It is second-hand food, in other words. There is no doubt about it. You can see that ~~is~~ a perfectly plain proposition and having been digested once before, it is naturally easy of digestion. But that is not the question. We do not find fault with beef because it is hard to digest; the fault is of

another character. The great fault that comes with flesh eating is this, the ~~the~~ flesh is not all digested; there are some portions left behind that are not digested and those portions of meat which are eaten and are not digested, lying in the colon in the intestine, undergo putrefaction, like a dead rat in the closet, and the effects are exactly the same thing, whether it is a piece of meat lying around in some nook or corner of your lot, or whether it is a dead rat lying in the pantry somewhere; the rotting is just the same; the effects are just the same; the same foul poisons, the same obnoxious stench, the same ~~trav~~ horrible effluvias. They are all produced there just the same and are sent right into your blood and poured out through your mouth and lungs. No wonder you have got a bad breath. They are poured out through the perspiration. No wonder your body has an odor so you have to carry perfume along with you to cover it up. It is because you have a bad bouquet and that bouquet is a dead rat bouquet.

Well, now, I happened to say that just then because I remember an experience that I had. I was telling you how bad the breath smelled, and that recalled a picture to my mind, a man who called at my office to see me and I went into the office and there was such an awful odor I had to open the window at once, and as he approached me and I got his breath in my face, it was beyond description. I had use for my handkerchief right away. I began to talk with this man about diet and other things. He said "Oh, you cannot tell me beefsteak is not good. Why, I live mostly on meats. I cannot get along without meat." I said, "Look here, my friend, do you know what your breath smells like?" I thought I might just as well get it out. He said, "Why, there is no odor to my breath, is there?" I said, "Your breath smells just like a dead rat." He said "You don't say so." I said, "You cannot smell it but you ask your wife about it. She will know and I dare say she will agree with me exactly, and I do not a particle. We

do not appreciate what we are doing with ourselves when we allow putrefaction to exist within our interiors. We take such pains to have our skins clean. None of us would want to go around with dirty things on the surface of our bodies, and yet we allow the inside of our bodies to be corrupt beyond description. Consider for a moment some of these horrible things that are discharged from the bowels, the horrible masses that are discharged from the bowels; consider for a moment what would happen to you if they were put back into your body again. They were there just a moment ago and perhaps you have been lugging them around for a week or two. Why, those horrible materials— I want to make this thing look bad to you, I want you to appreciate it because we do not half appreciate it and this is a fundamental thing, my friends; it is a very fundamental thing in chronic diseases. We have got to make up our minds to be clean, clean inside as well as outside. If you are going to get well and keep well, if you are going to have a clear, bright skin, it has got to be a clean skin and it is not sufficient to clean the surface. This dirt that makes a dingy skin is more than skin deep. It is in your brain and it is no wonder you have dark thoughts when you have a dingy brain; it is no wonder you have neuralgia and wretched skin, depression, when your blood is saturated with these horrible poisons, the poisons in the dung heap, the poisons in the slaughter house, the poisons in the establishment, those horrible stenches that come from putrefaction of matter. Every man and woman who is a meat eater and particularly those whose bowels are somewhat inactive and do not move with great frequency is in exactly that condition. His body is saturated. Why? I look around this room and I see faces that indicate this very thing— chronic auto intoxication. Every bad

that
 complexion means ~~that~~ thing; every bad breath means that thing. Bad
 breath does not often come from noses or from teeth; it more often
 comes from farther down in the interior. It is not necessarily belched
 up from the stomach, but foul material absorbed from the intestine
 and poured out from the lungs and the skin. I want to inspire every-
 body I come in contact with to be clean— not only externally clean,
 but internally clean. I surprised a lady the other day. She showed
 me her tongue. It was awful. I wanted to make her think. If I
 simply said she had a coated tongue, she would not think anything about
 it. She would have said "Why? of course. I have had that for years."
 A lady told me that the other day, when I said she had a coated tongue.
 "Why, I have had that for twenty years; that is nothing." I looked at
 her tongue, and I said " I am surprised you have got such a dirty face!"
 She said, " Is not my face clean?" I said, "Oh, it is the backside of
 your face that is dirty. The front side is all right, but you have
 neglected the back side of it." The back side of your face is more
 important than the front side, a great deal. You have got some of
 this filthy dirt on the inside, that stinking dirt. That is the pro-
 duct of the activity of germs, all these foul germs that grow in the
 very worst and most unwholesome objects that are going back to dust
 again. They decay in our bodies and when our bodies are satura-
 ted with such things as that, how can we be well? The wonder is we
 were not all killed off long ago; the wonder is that any of us are
 alive. The living cells of our bodies must have a defence, a te-
 nacity of life that is beyond description. If you have a little
 aquarium and a dozen gold fish in it, how careful you are to keep
 that water clean. As Claude Bernard said ~~some~~ years and years ago,
 "All life is under water". You never thought of that, did you? All
 life is under water. The cells of the blood that fight against the
 germs that invade our bodies are floating in water. You just

puncture yourself somewhere and the water spurts out -red water- so the water is under pressure. Our bodies are simply sacks full of water and we live in water. All the work of the body is done under water. ~~All~~ life is under water. The living cells of our body are like fishes in the water, like polyps and the various other curious creatures we find in the sea. They are working in our bodies, doing things for us. We are living under water. Now, there are the gold fish in the water of your aquarium. The water is clear and the fish are healthy. Suppose you ~~pollute~~ pollute the water. What would happen to the gold fish? They would get sick. We are living under water, and if it is dirty water, we are living depressed lives. Our lives are not up to the level that belongs to health. That is the main thing, my friends. That is why we give you such a careful diet here. For instance, we do not set any rotting beef-steaks up into the dining room. You cannot get them there for love nor money. You cannot get any kind of dead beasts up there. Why? Not because it is expensive food. It is not so expensive as some other things. The cheapest things they serve at hotels are old bones and things they make the soups out of, and the odds and ends and fragments of things. The odds and ends are converted into soup, beef tea and bouillon and all that sort of thing and these preparations are awfully cheap. Fruits cost a good deal more than such things as that and ^{that} ~~there~~ is the reason. It is not because of any fad about it; it is not because of any but simply because such sorts of foods are foul; because they are unclean and defile the body and because they antagonize the other things we are trying to do for our sick people, for the great things we try to accomplish for ^{is} the man that is chronically sick, who comes here to get his

body clean, to get his blood clean and to get his skin clear. There ^{saying} is ~~an~~ among the English trainers that ^{when} ~~was~~ a man is ready to fight a battle with his fists, when he is in what they call the "pink of condition", his skin is as clear as a woman's- he has a skin as clear as a child's skin and when an athlete is ready for a fight that is the sort of skin he has got and it has to be that way so his brain will be clear and his nerves quick and his muscles enduring, in order that he may win his conflict. Now, my friends, in the conflict of life, do not we need to have clean skins? We have to have clean ~~light~~ skins, clean brains to think. clear thoughts, in fighting the battles of life; we have got to be as well equipped with nerves, muscles and brain cells that are nourished by clean blood, as we can be. Well, I must hurry on. I have not had a chance to talk for so long, you see, I am afraid I will be sort of like a volcano that has opened up and has to explode.

Q. Can a prolapsed colon be cured?

A. Yes, it can be cured, but ^{it is} ~~i is~~ not always worth while to cure it. It is best sometimes to learn how to tolerate it. We can cure a prolapsed colon by making an incision in the abdomen, lifting the colon up and sewing it fast there so it will stay, but it is not always worth while to do that. It is not everybody who enjoys that kind of treatment, so it is better to do another thing. That prolapsed colon is not doing any particular harm providing you put the right things into it. The only reason why you have any harm from that prolapsed colon is because you eat some things that rot and they get down into the blood and rot and you absorb the poisons. Now then, if you confine your diet to things that will not rot or decay and you keep the blood clean, it does not make a particle of difference where it is,

upside down, right side, left side, or anywhere else. You simply keep it clean. So the prolapsed colon is not a thing that need worry anyone, providing he can so manage to take care of that colon that there is no accumulation of putrefied material and the very best thing of all is to put nothing in it that will putrefy. Mr. S.S. McClure, the proprietor and editor of McClure's Magazine, and one of the leaders among the magazine publishers said right here in this room, standing here before a large audience, larger than this- he said "I eat nothing that rots." He said again in the gymnasium before a still larger audience "I would just as soon think of getting down on my hands and knees out here in the middle of the street and licking up dirt in the middle of the street as to eat a piece of beefsteak or mutton chop, of anything of the kind" so you see Mr. McClure is pretty nearly convinced of the truth of the things I have been telling you. He knows from his own experience. He ate rotting beefsteaks and they kept right on rotting until they pretty nearly ruined him financially and every other way. Just a few years ago he was nearly at the end of his rope. When an advertising man would come along here a few years ago to talk about advertising, and anything was said and anything was said about Mr. McClure, they would say "Oh, Mr. McClure is all right. He will be down pretty soon and you won't hear of him any more." But Mr. McClure came over here three years ago and got a new lease on life, and if you happen to run across him anywhere, you will see that he is like a steam engine and he says the only trouble he has is to stop long enough to sleep and he thinks he has ^{added} ~~had~~ twenty-five years to his life. Now, I would not dare to speak of Mr. McClure in this way if he had not himself said what I am saying to you, and a great deal more, before an audience of several thousand people. Whenever

~~Mr. McClure's name~~

he comes ~~here~~, he gets up here and tells our people what I have been telling you. He is proud of it because it has done so much for him. He wants to tell everybody about it. There is, at the present time, a lady here in this institution to get acquainted with the whole things and write it up for McClure's Magazine, because he wants the world to know ~~the proposition~~ of these principles. He and his wife, and the other members of his family have adopted these principles and live up to them religiously everywhere they go. There is no meat on the McClure's breakfast table, or dinner table, either. They want clean food so they can have clean bodies and in that way develop the highest possible efficiency in the human machine. I had a letter from Mr. Horace Fletcher the other day just as he was leaving London. He is in Copenhagen and he said "For fifty ^{days} ~~years~~ I have not eaten a thing but potatoes and a little fat to make out the proper number of calories." He eats two to three pounds of potatoes every day and he said "I was never in finer condition in my life. My strength has kept up perfectly and my tongue is clean and my head is clear and I feel fine. I feel as though my body had been thoroughly washed by the valuable the potato contains which have neutralized the uric acids and all the other unwholesome things."

Q. How soon may we expect a modern and comfortable vehicle to carry us up to the Sanatarium from the depot?

A. I am going to ask the mayor of the city about that right off the first time I see him, and I think if he does not give us a satisfactory answer, we will find some other way.

Q. Would it be possible to have a spring board?

A. Yes, certainly. We want to get enough of that into our bodies so when we get up in the morning we will feel like jumping ten feet high the first thing we do. You go out into the country once in a while, go by a pasture and see a colt out there jumping, spring-

ing and gamboling about because of the joy of life he feels. He cannot keep still and you see sometimes a little boy or girl who feels the same way. You have lost all of that. You have left it away along down the road somewhere and I want to tell you you can get it back. You can get it back if you live for it. If you are willing to cultivate health, instead of cultivating diseases, willing to live in a natural way. If you will do this, you can get a whole lot of that spring that has gone away, back again. There are very, very few people who come here that cannot get a large share of the old lost vitality back if they ~~are~~ will just work for it. The trouble is, we cannot get people to work at it long enough. A man comes here who has been looking right straight down into a hole. He expects to get in there pretty soon and he is getting nearer and nearer to it every day and it begins to look awfully uncomfortable down there. He does not like the idea of it ~~at~~ at all. He comes here to the Sanatorium and we get him turned around. He begins to look the other way and in a week or ten days he forgets all about that hole, and he wants to go right back, right back home and pretty soon he will get right back to the same place again, lloking right down into the same hole. That is the trouble with them. We cannot keep people here long enough. Just think of it- the ladies stay here on an average of 37 days and the men, 27 days, to get rid of some diseases that they have been cultivating for 27 years and 37 years, perhaps. This thing cannot be done by magic, but it has got to be cultivated, just as we sow a crop of corn- we have to get the seed, sow it in the ground and cultivate it and then, by and bye the harvest comes. It takes just as long to grow a crop of health -sometimes longer- than it takes to grow a crop of corn. We cannot do the thing so fast as that. We have got to wait for it. We have got to plant the seed and then wait for it to sprout and grow.

Q. What is the cause and cure of mucus in the colon?

A. Germs; putrified germs; beefsteak germs. Colitis is a beefsteak disease. I do not say that on my own authority. Prof. Tissier, the great bacteriologist of Paris, the associate of Metchnikoff for many years in the Pasteur Institute says it most emphatically. There should never be such a thing as colitis if it were not for putrefaction of animal protein. Some of these germs feed best on meat, some on eggs and some on the casien of milk, but cut out all these animal proteins and the colitis disappears. I said to Prof. Von Noorden's assistant, Prof. Falta, one of the greatest physicians in Europe, a man whose name is known all over the civilized world— I said "What does Prof. VonNoorden give to his patients who have colitis?" What do you think he said? If I had asked him five years ago, he would have said "scraped beef", but now he said "vegetables". I said "What, course vegetables, like lettuce?" He said "Yes, yes. Potatoes, yes. Beefsteak, no. Well, perhaps just enough to keep up the patient's appetite." I said, "but perhaps the patient's appetite is satisfied without beefsteak." He said, "of course, that is a great deal better." Now, that was my conversation with him. That is what is going on in Vienna, the greatest medical centre in the world, in the hospitals. If a man is a rich man, he gets his beefsteak. You see, it is the poor people I am talking about, and what Prof. Von Noorden prescribes for the people in the hospital there. They want to get them well just as quickly as possible, and get them out for they are crowded. The patient says "you are not going to cut off my beefsteaks, are you?" The doctor says "Oh no, oh no, you may have beefsteak if you want it." He knows he has got him for a patient as long as he gives him beefsteaks, but that is not the reason. I am not going to say that at all, but if he says to them

"You must cut off your beefsteak right away; you cannot have any more", nine out of ten of them will go and hunt up another doctor, and an eminent physician in Detroit thirty years ago said to me "Dr. Kellogg, you are right up there at Battle Creek. You are perfectly right. I believe exactly as you do about these things. Nature is the power that cures. Medicines do not cure, but when a man comes to me, if I do not give him some medicine, he goes to the man across the street. If I tell him, "You stop ~~smoking~~ smoking and stop eating beefsteak, and you will get well all right; you do not need any medicines," he just runs right straight across the street to that doctor there, and I lose him, don't you see, and I have to give him some medicine and I have to let him do about as he wants to do. You cannot make people do what they ought to do. Now, my friends, the purpose of this institution is to teach the right way and to teach it as thoroughly, as clearly and lucidly as we possibly can so that every man and woman who comes here will find out the road and then the responsibility is ^{on} ~~with~~ him.

Q. Is it best for those who have had goiter always to be careful about diet?

A. A person who has had goiter must be careful about diet. Now, when a man has had ~~much~~ say a fortune left him by his father of \$10,000,000 we will say, and he has expended all that money, thrown it all away except a little entailed property, perhaps "10,000, or so, and he has the income on it to live on after he has gotten bankrupt, has gone to the end of his rope and his checks are not cashed any more, he has always got to be careful about spending money, you see. He has not got it to spend, and the man who has had goiter, or a woman who has had goiter, has lost the power to deal with poisons. The thyroid has

been destroyed by overwork. One of the functions of the thyroid is to destroy poisons that are introduced through beefsteak. How do I know that? I do not tell you a thing here that I do not absolutely know and can absolutely prove. Not a single thing will I ever utter here that I cannot substantiate to any scientific man. This is how I know that. A doctor in Germany sometime ago was trying to find out what was the use of the thyroid gland. He took some dogs, removed their thyroid glands, then watched those dogs and the dogs got along all right for a few days, but bye and bye they began to have spasms and they got worse and worse and after awhile they went into coma and they died, so he published that fact. Another man got some rabbits, removing their thyroid glands and none of them died. They all got along all right. Then another man took some dogs, removed their thyroid glands and he fed them on bread and milk and they got along first-rate and none of them died, so it was discovered that the function of the thyroid gland is to destroy poisons that are produced when a man eats meat, that are produced in his colon. Now, when those poisons are introduced into the body in great excess, the thyroid gland is overworked, and then there is an exophthalmic goiter- Grave's disease, it is called, and then after awhile the gland gets worn out and then comes myxedema, which is a degeneration of the thyroid gland. I met two cases of it this very day. I met a lady and I found symptoms that indicated inefficient thyroid. Her skin was dry. I said to her "Your skin is dry, is it not?" She said "Yes. It is often branny." The skin of the whole surface of her body is dry and branny" and she said "My hair is dry, too, and it is getting thin." I examined the thyroid gland and could not find that she had any at all. It is entirely gone. It has degenerated. This is the cause of those brown spots on your hands. You cannot have those brown spots as long as your thyroid gland is doing

its duty, and when you have got them, it is a sign that your thyroid gland is being exhausted, worn out. That is right. Look at your hands. You have got some of them coming if you haven't got them now. I saw several of you looking for them. If I ever see any brown spots coming on my hands, I shall certainly be tempted to wear gloves. I do not want any one to see them. I should be ashamed of them, because I have no right to have them. I know better than to have any brown spots on my hands, which means degeneration. Now, I am only endeavoring to show you the practical applications of scientific facts that are well known and admitted by all physiologists and which they all thoroughly understand. Now, I met a gentleman who had the very same symptoms, dry hair and dry skin. He said "I put some oil on my hair and it is not so dry as it usually is, but it is falling out." He had a dry skin, too- degeneration of his thyroid gland. Now, that man must always be careful in diet; never should he eat meat. I should advise him not to eat eggs either. We do not eat either meat or eggs. They are a second-hand diet. If you are going to eat any part of the egg, eat the yolk of the egg; the white part is intended to be a chicken; the yolk of the egg is the little lunch put up for the chicken to help it along the road until it gets out of the shell, don't you see. That part is food, and it is more digestible and more nourishing. There is twice as much nourishment in the yolk as in the white of the egg. The white of the egg only one-half as much nourishment as the yolk has and the yolk is easily and quickly digested, whereas the white, unless it is taken raw and whipped up- if it is cooked in any form it is very hard to digest.

Q. Can radium be successfully used in treating goiter?

A. No~~w~~, it is not found of any service in goiter, but all these goiter cases can be successfully treated, everyone of them. There is no necessity for anybody to die of exophthalmic goiter. It is always curable.

Q. Can prolapse of the colon be cured?

A. Just as far as necessary, it can be cured. The trouble comes not so much from the colon being out of place as from the relaxed condition of the abdominal muscles. Everybody who has a prolapsed colon, or bowels, or liver, or kidneys, or whose abdomen is pendant, needs an abdominal support to hold it up until the muscles are made strong enough to accomplish this; not to hold these organs in place, but for the reason that the thing that causes this prolapse is relaxed abdominal walls and diminished abdominal pressure, and it is necessary that this pressure should be applied. I met a man today who said "When I stand up, I am giddy." "Well, I said, "Don't stand up, Sit down; lie down; put your heels up on the wall and you will be all right." He did that and he was relieved at once. The trouble was this man's abdominal wall was so weak and relaxed that when he stood up, the blood all ran down in there and he ~~at once~~ had not blood enough to keep his head going, you see, but as soon as he laid down, the blood ran back. There are a lot of you who are nervous and depressed and feel weak just because you have not got enough blood in your head, and have too much blood down here where you do not want it. The abdominal support helps to keep it up where it belongs. Most persons suffering from arteriosclerosis ought to have this kind of support. In fact, more than half of the people ~~xxx~~ that have chronic diseases need just that sort of support. I met one of the most distinguished surgeons of London, one ~~day~~ whose name is perhaps known more widely than almost any other in London. I was chatting with him one day, talking with him on this question and he said "I have got one on, myself." and he rapped his side ^{here} and it sounded as though he ~~was rapping~~ ^{striking} on board. He said "I have got a regular harness on to hold me up. I can hardly get along without it." He can stand up to the operating table and work hard all day because he keeps the pressure on here.

That keeps the blood out in the muscles where he wants to use it and in his brain, instead of allowing it to accumulate here in a stagnant pool in his abdomen. I will tell you more about that at another time.

Q. Should ~~up~~ ulcers in the bowels or colon be treated, or operated upon?

A. Now, they can be cured up. It is very rarely an operation is needed, but operations are sometimes needed.

Q. Why cannot we have some new scales in the ladies' bath room?

A. Well, I guess we can. We have got somebody here so heavy the scales do not weigh them correctly, I suppose. We will see that the scales are renewed. I am glad you are interested in scales. Use the scales. If you are too thin, and are not gaining, we want to know it. If there is anybody here that is thin and not gaining flesh, don't you go away from this place until you accomplish what you came for. A lady came in here last year and she said "Doctor, I would give anything if I could only be plump. I would just give anything". Now, I said "How much will you give?" "Oh, she said, I will give \$500.00 if you will only just fat me up 15 pounds". She was on the shade side of thirty and she said 15 pounds would be worth \$500.00 or more to her, all right. I said "It is a bargain. I will agree." So she commenced to gain and as soon as she had gained 13 pounds, she packed her trunk and went off home. You see, she was afraid she would reach the 15 pounds.

Q. Does _____ always indicate the presence of germs?

A. Practically, yes. Sometimes, the germs are dead, however.

Q. Why can't we have baked sweet potatoes?

A. There is no law against it. I will see about that right away.

Q. Will radium be good for back ache?

A. Yes, it is good for back ache if it is neuralgic ~~of~~ back

ache or rheumatic back ache. If it is back ache that is due to an cold, the radium is not so good and something else ought to be done. I want to tell you it is amazing what is going on down in the alimentary canals of some people. I met a patient the other day as soon as I got home. He and I begun talking over this question, about the bowels moving regularly. The patient said his bowels moved regularly. "Well, how often?" "Well, once a week." Now, you see once a week will hardly do. That is ~~a~~ rather too seldom. That means that a large part of the putrefying material that is present is absorbed and has to be carried off through the skin and the kidneys, and these organs are enormously overworked. It is like the gutter being turned into your front parlor, and kept there. Why, ^{you} my friends, we ought to be clean inside. We want the plates to be clean and the spoons to be clean; we want the table cloth to be clean and we want our food to be clean and then just think of putting that clean food down into our bodies and allowing it to be polluted there so that it stinks, so that it is horrible, loathsome. Why should clean food be so affected by contact with our interiors? Because our interiors dirty and filthy and they need to be cleared out. A homespun doctor said to a patient "What you need is to clean up, clean out and keep clean." Now, that is really the truth. That is the most important thing that chronic invalids need. The average chronic invalids need nothing more than just that thing- to get cleaned up, cleaned out and to be kept clean. That is why the mineral springs flush forth so the people go around once a year and get a housecleaning and then they are pretty comfortable for awhile, and it really does them good, but now we want to learn how to keep clean, don't you see? And this artificial method is better than nothing- a great deal better than nothing. Out in the west they have salt licks. The cattle get into the same condition sometimes, then they go out on the mountains where they do not get the proper kind of food. They have

to live on willows sometimes, and the bowels get inactive. I met on the ship coming over a man who is a stock raiser, a great stock man out in the west, and he said years and years ago he raised about 500 heifers one year and he noticed their bowels were very inactive when they were living on the willows. The snow got so deep they could not get at the grass and they found the willows and they ate them ^{as} ~~and~~ that was all they could get and their bowels became very inactive and they got hollow-eyed and thin. Their hair had become bristly, but now he said I gave them some nice green alfalfa and in three weeks they were entirely changed and those symptoms had disappeared. He said that auto intoxication does a heifer just as much harm as it does a man and that man, by his ^{shrewd} observations had learned how to cure his cattle by taking care of their interiors. This subject cannot be emphasized too much. I began telling you about that patient. I asked him if his bowels moved regularly. He said "Yes, they move well", but he came to my office and I found that there was the necessity for something more to be done so I sent him to the bath room and it required eleven large enemas before that overstocked colon was thoroughly evacuated. Now, just think of that thing. That poor man had been going around with that horrible material being just absorbed into his blood and it was not ~~no~~ any wonder he had a bad complexion and pimples on his face. The wonder was he had not died. That is the way people get Bright's disease— by overworking their kidneys, or by bringing such an enormous amount of work upon them that they were never intended to do at all. We have got to take good care of our vital machinery if we expect it to reach through 100 years.

Q. Can anything check the progress of hardening of the arteries?

A. Yes. The thing that will check it is to stop eating beefsteak.

I want to say to you there is not a scientific physician on the face of the earth today who would not say that same thing to you. Ask Dr. VonNoorden

or Dr. Heis, or any other intelligent physician and he will say "Stop your beefsteak first of all." A man came here awhile who stopped to see Dr. Billings on his way here. Dr. Billings gave him a prescription, and I actually could not make any improvement in it. His prescription said- no beefsteak, no tobacco, no tea, no coffee, a large quantity of fruit and fresh vegetables. Take pains to chew your food and to keep the bowels active. Why, he told the whole story. What that man needed now was to be shown how to do it, and to be trained how to do the thing so that he could make a practical success of it, so that he could carry it on, not for a week^{or two weeks} or a month, but for three months, six months, a year and the balance of his life. That is what you have got to do, everyone of you, my friends, if you are going to live as long as you are entitled to live. You have got to learn to live right and to stick right to it when you go away from this place. I met a gentleman walking down the hall yesterday. He said "Doctor, do you remember twelve years ago ~~when~~ I was here?" When he came here, he was almost dead, but that man is now the head engineer of the Puget Sound Navigation Company, has got sixteen great steamships under his care, and is thoroughly well, just as well as can be, brim full of ~~life~~ health and energy. He is capable and efficient and he said the remarkable thing about it is that he sticks right to this thing. He does exactly what we told him to do all the time and he has never varied from it since he was here. That is the secret of the thing. This thing is cumulative and is like compound interest- if you begin living right and you live right for a time until you have received a good uplift, then from that standpoint you can get a bigger uplift next year and the next year a still bigger one. I am proud to say that this very minute I have got the best health I have ever had in my life. I was such a puny boy I was not thought worth raising. My father admitted that to me when I was grown up. Thirty years ago my father said to me "John,

if ~~you~~ I had thought you were going to amount to anything, I would have taken more pains with you", and it was a matter of fact that he did not think it was worth while. I was so puny he thought it was a dangerous thing to send me to school so he did not do it. I was too puny and liked books too much and I was often forbidden to look at a book for months at a time. I won't say that I didn't. I did some night work in those days when the rest of the folks were asleep. Well now, I was given up to die of consumption when I was sixteen years old and I kept on living a puny sort of life, but after awhile adopted these principles, as I had learned them and made a practical application of them. I practice what I preach, my friends, no matter where I am. You will never find me doing anything else but practicing just what I preach. When I tell you beefsteak is rotten, and is not fit to eat, you may be sure I never eat it. I never soil my interior with those putrefying things, under any circumstances. I would get very hungry and go for a long time before I ~~w~~ could be induced to do it. It is too horrible for me to think of, even. Well, I found myself improving and those who predicted I would not live until I was twenty-one, I found dying off while I was still living. I found myself alive at thirty and I was surprised, and I was sure I would not live to be forty, but when I was forty and I was better than I was at thirty and now I am sixty years old and I have the finest health I have ever had in my life, and any of my friends will tell you if you ask them that they never knew me to be so well, so by the time I am seventy or eighty years old, I hope to be still enjoying splendid health (applause). I consider myself in pretty good health now, but as I said before this thing is cumulative. You provide these principles of right living, of natural living or simple living and you get compound interest on it and a large percentage, too, but

you must keep right on, just keep right on- Christmas and Thanksgiving days and New Years and all those old days, as well as working days, but I must hurry on.

Q. Do you consider chronic bronchitis incurable?

A. No, indeed, it is one of the most curable of diseases.

It originates in the colon; it is a colon disease. It means simply the lungs are pouring out these awful poisons just the same as the skin is. The mucous membrane is only a lining skin and when persons who are subject to skin diseases or who have irritable skins, exema, and things of that kind, they have bronchitis, too. It simply means the interior is in the same condition as the surface, you see. Now, the same thing that cures the surface will cure the interior, also. Get rid of the condition indicated and the bronchitis gets well. I have seen it hundreds of times, and plenty of doctors are finding it out now. We are not the only ones, by any means.

Q. Is being emotional due to a weakened condition of the nervous system, or caused by indigestion?

A. Well, it is all the same thing. The indigestion weakens the nervous system and disturbs the equilibrium. A person may be emotional in various ways. I remember one lady came into my office one time who was very emotional, because of indigestion, inactivity of the bowels and a general state of ^{weakened} condition indicated. She came in and pretty soon she began to cry and she sobbed and sobbed, tried to tell me something but could not, but by and by she managed to say to me "Doctor, I am cross. I scold my husband, I scold my children, I scold my neighbors, I ~~scold~~ scold when there is not any ^{sense in} ~~reason for~~ it" and she said "Doctor, do tell me, am I sick or am I wicked?" Now, this lady was a nice little woman,

and a good christian woman and I knew from friends of hers she was a woman of splendid character and I was surprised when she told me she was such a scold, and I said "Let me look at your tongue." I was a sight. It looked as though it needed the city scavenger to come and clean it off. It was simply terrible and her breath was awfully bad and I said "I am very glad to be able to say to you, madam, that your case is a case of total indigestion, and not of total depravity." This thing breaks out in various ~~different~~ ways. I heard the great Methodist, Bishop Vincent say some people thought they had experienced religion when they had only had a billious attack. I think that may be so.

Q. Does exposure of the feet to cold cause catarrhal conditions?

A. Yes, sometimes, ~~but~~ by upsetting the circulation it may produce catarrh.

Q. Is supersensitiveness of the nerves due to imagination, or is the pain real?

A. It is really no matter whether it is imagination or real. The pain is in the brain and it does not make any difference how it is produced; whether it is from sticking a needle into a finger or whether it is a trouble, sorrow, or a figment of the imagination, the pain is there. It is all the same thing. I have seen scores of people who had imaginary pains. I met a lady sometime ago who dreamed of burglars every night and she woke up in the morning in a perspiration and exhausted from the fight she had had with those burglars? She was just as exhausted as though she had actually had the fight, but did not have any broken bones, of course, but her nerves were exhausted by the ~~troubled~~ terrible conflict she had when she was asleep. These general troubles are not manufactured in the brain. They are the result of morbid reflection; they are caused by auto intoxication, irritations, and various disturbances in the body that come from ~~long~~

wrong habits of life. We must correct these physical ~~conditions~~ causes. That is why Christian Science, the Emanuel Movement and all the other things of that kind fall down. That is where they fail. They deal with the effects and not with the causes, you see. We must remove the causes and then the effects will disappear. Some of this psychological treatment is good but it is not any better than the good old fashioned religion, after all. Good old fashioned christian faith, belief in a great beneficent power that is willing to do for us and help us, to save us and heal us- that is better than all the ~~and all the suggestion and all the Christian Science you can find anywhere.~~ That is the real thing. These other things are substitutes.

Q. Can hemorrhoids be cured without operation?

A. Yes. They can be cured without operation, but it is a longer way. There is a Brooklyn surgeon who wrote in one of his books "If a patient comes to you with a certain rectal trouble and says 'Doctor, can you cure me?' Find out how much money he has got. If he is a rich man, tell him 'Yes'. If he is a poor man, tell him 'No' because he can never afford to pay you for his treatment. If he is rich, then you will get more money than for an operation. If he insists on being cured without the operation and has the money to pay for it and wants you to do it, all right. It will take months to cure him and you will get \$200 or \$300 out of him." That is simply giving the man what he is willing to pay for.

Q. What causes unconsciousness in fainting?

A. The blood recedes from the brain.

Q. When red cells are deficient and white cells are excessive in the blood, what is necessary to be done to restore ^{the} ~~to~~ normal proportion?

A. Improve the nutrition. Get rid of the auto intoxication.

The poverty of the blood is not due to lack of blood making, but it is due to excessive destruction of blood. 8,000,000 blood cells are destroyed every ~~minute/~~ second of our lives, but when these putrefactive processes are going

on in the intestines, one Welch's bacillus is growing there- that bacillus I was telling you about a little while ago that makes certain poisons which, when they get into the blood, destroy the blood. That is what makes the anaemia. I said to Prof. Falta, Doctor Van Noorden's assistant, "What do you do for pernicious anaemia?" He did not say -rare beefsteak- he said "vegetables!" I said "with no meat at all?" He replied "Not a bit- no meat at all." Now, that is a new doctrine, isn't it? But it is not new in Vienna. It has been known there four or five years, and in Berlin, it known for the last four years. It is new in America, but in less than ten years, every doctor in America will say the first time the patient comes to him with a very grave case of anaemia "Stop your beefsteaks". It takes twelve generations for an idea to get over the earth, but when one starts in those great centers and the great leaders of medical science get it, by and by it filters out and gets down by and by to the remotest country doctor, so it is coming and we are doing what we can to send the doctrine along. We have been curing pernicious anaemia in that way for the last twenty-five years because we had moved in the truth that lead us in that direction which other doctors had not been able to get.

Q. What is systolic and diastolic blood pressure?

A. When the heart beats, it throws a jet into the arteries and that is the systolic pressure. The ~~systolic~~ diastolic pressure is the pressure between the beats, the interval between while the heart is filling and the systolic is while the heart is beating, so the systolic pressure is the highest pressure the blood reaches during the heart beat and the diastolic is the lowest pressure it reaches between the beats.

Q. What is the cause and cure of catarrh of the stomach?

A. Jeremiah gives the cause and cure. He says "Cease to do evil and learn to do well; stop eating things that make catarrh of the stomach and it will get well of itself. The body does not have to be cured. The body

cures itself. The cure that heals is within the body. It is not rubbed on, nor swallowed. It is in the body. It is the power that made us and the same power is at work healing us all the time. If it was not, we would all have been dead long ago. The healing process is continually going on, repairing the damage done to us all the while by our wrong acts. Sometimes we do ourselves so much harm that the harm accumulates and we find ourselves sick. All we need to do is to stop accumulating the harm, to stop heaping injury upon the body, then the power within the body, itself, brings back health. We can help a lot by our works of supererogation. That means being extra good, you know, and in that way ~~when~~ one gets some credits on the other side, as our ~~Catholics~~ Catholic friends say, to off-set some of the bad things he has done, so we undertake to do things of supererogation here. We do not have to take a bath every day for health, but it is a good thing to do. We do not have to do it, but sometimes we take extra baths two or three times a day. This is a sort of penal institute, too, where people are punished for their sins by various sorts of flagellations and

Q. What is sciatica?

A. Well, it is a pain in the sciatic nerve, caused by various things. The most common cause is a diseased condition of the colon. That is one of the most common causes. Sometimes it is rheumatic.

Q. What should be done in cases of fainting? or accident?

A. If you are feeling faint when you are standing up, somebody perhaps says "Lie right down on the floor" but it is not convenient to do that sometimes, and it is rather embarrassing. If you are out in the street and it is muddy you would not like to lie down with your best suit on, in the mud, and it is not necessary. There is something a great deal better to do, and that is to bend forward without lying down— just simply bend forward and that will get the blood into the head quicker than it would to lie down, because when you bend over you compress the abdomen and the reason you were fainting

is because the blood has run away into the abdomen. Now then, just draw in the abdomen, pull it in, bend down so, ^{hang} ~~hands~~ with head down and you will get up in a second. If you are sitting in a chair, it is very handy, because all you have to do is to clasp your hands across in front of you and compress your abdomen and to bend forward, so. I remember a case in which I utilized that principle to save a woman's life, after a terrible operation in which I removed an enormous tumor in the groin, where great blood vessels and nerves were involved. At the end of the operation the patient was pretty weak, but I ~~we~~ managed to get through with the operation. The patient was taken into the next room and I suddenly heard a shout from the assistant to come quickly. I hurried in and the patient was dead. Her face was gray. There was no pulse. I listened to the heart and there was no heart beat. That patient was dead if I ever saw anybody that was dead. Well, I recalled what I was just saying to you. I said it is a condition of shock and collapse because the blood has run away into the abdomen so I immediately put both my hands on the abdomen and pressed with all my force/ and weight upon the abdomen and the blood came back to the face and the pulse began to beat and the patient was ^{alive} ~~excuse~~ again, beginning to take breath. Then I called for a bandage and put a bandage around the body, then put a rubber ~~pack~~ ^{bag} ~~instead of~~ bandage over the abdomen. I could not stand there holding it all the time so I put the rubber ^{bag} ~~pack~~ in and blew it up and when I blew up the rubber bag, it compressed the abdomen every where and so forced the blood out. I made sure I was right about that- I wanted to be certain about that, so as to know the cause of that trouble for fear it might come again. I just let the air out of the bag to make sure it was right, and in ten seconds, the face was gray and the pulse had stopped and the patient certainly would have been dead if I had left her in that condition. I blew it up again and right away the blood came back and I kept it there for three hours, and the patient was saved, so you see it is the real thing. I do not tell you anything here, ~~as~~ as I said before, ~~that I~~

that I have not an absolutely sound foundation for. If you feel yourself fainting sitting in church somewhere when the sermon is long and rather dry, just bend over this way, and perhaps the preacher will take courage, thinking you are getting great help from his sermon.

Q. Is common sugar harmful?

A. I do not eat it. Malt sugar is the thing you want. It is the natural sugar. If you get accustomed to it, you will like it quite as well. It abounds in all kinds of fruit. Certainly you can use all the malt sugar you want to. It is the most easily assimilable form of carbohydrates. If you are thin and want to get some fat and plump out your cheeks, a little malt sugar a natural thing to do it with. Malt sugar aids the digestion of other food. Cane sugar is a cattle sugar and is ~~eaten~~ intended for cows. It is the sugar found in grass, plants and in trees. We do not find cane sugar naturally in human foods. It is fruit sugar that is found in natural human foods and the malt sugar is produced by the action of salive upon starch. It is natural sugar for human beings and so is purely harmless and can be eaten in any quantity desired. Children can eat it and babies can eat it. That is the reason why Mellin's Food saves the lives of a great many babies; it is simply malt sugar.

Q. What is the attitude of the Battle Creek Sanatarium toward homeopathy?

A. It has not any attitude at all. It is not necessary. I will tell you a little story. A doctor came here some years ago and brought a patient. When he was just about to go away, he said to me "Now, doctor, I want to say something to you. I am a homeopath and this patient has always been treated on the homeopathic plan, and I want you to treat this patient homeopathically. I brought her here because I thought you were a liberal minded man and I thought also you would be willing to do that for me. I promised her I would make

arrangements with you that she should be treated homeopathically." I said " I have no at all, if you will tell me how we are going to use water for this patient. We shall give her baths. Tell me how to do it homeopathically. How shall I dilute the water, or how shall I attenuate it?" He said "That is all right. You know how to give water. That is all right." "Well, I said, we are going to use electricity for her and how do we do that homeopathically?" He said "That is all right, doctor. I think you can do that all right." Well, we are going to give her some exercises. How shall we do that homeopathically?" He said "That is all right"and I said "We are going to feed her something . How shall we do that homeopathically?" He said "Oh, doctor, I guess you understand the business. I guess it is all right." So do you not see that homeopathy is a thing that relates just to drugs. Homeopathy and alopathy are unscientific terms which relate to drugs, but have nothing at all to do with rational treatment, with physiologic and scientific treatment. They are simply terms which apply to doctors who believe in drugs and the curing of people with drugs. We have nothing to do with that. We are outside of it.

Q. Are auto intoxication and catarrh of the stomach or intestine the same thing?

A. They are not the same thing. One is one result and the other is a secondary result. Catarrh of the intestines is due to the accumulation of these germs that are found in meat, putrefactive germs. The baby is perfectly well as long as it nurses its mother, and does not get infected, but when the baby begins to crawl around the floor and puts its finger and thumb into its mouth, ~~it~~ scrapes up the dirt, the powdered manure and filth which somebody brought in from the streets and puts it in its mouth, then the baby gets inoculated and when the baby takes cow's milk that has got chunks of stable litter in it so you have to filter it out and strain it out with a suction, there are millions of bacillus in every spoonful of it, and when a child begins to take

that cow's milk, it gets infected, too, gets sick and the germs get a foot-hold and grow and develop. It is these germs that cause ~~th~~/ all Bowel troubles with babies. The stools become putrid, and give the baby a bad odor, and the putri-
fective germs ⁱⁿ ~~and~~ the intestine become then mucus is formed, and some of those horrible germs remain there and follow you right along through life, go along with you and when your health gets a little broken down, you get fatigued or exhausted, nervously or physically, or you get a hard cold, perhaps, or something of the sort, then they spread in enormous rapidity. When you eat beefsteak that has a little more haut gout, as the French say, than usual, then they grow with great rapidity here, and they begin to infect you more and more, and then you get colitis. That is what colitis is. It is simply due to the growth of these putrefactive organisms. The mucus membrane is the filterer that filters the poisons out, but when you have colitis, the mucus membrane becomes diseased, becomes then the poisons must stay in. It is like opening the gate and letting the pigs get into the garden or just leaving the a front door open and letting the cattle get into the parlor. That is exactly what it is, so we must cure up this colitis in order to get rid of the auto-intoxication. Auto intixocatio~~n~~ never can be cured as long as colitis is present. The first thing ^{is} ~~taxic~~ to cure colitis, then the auto intoxication will disappear. One makes the other worse.

Q. What is the cause of deforming arthrit~~is~~?

A. It is one of these auto intoxications, or one of the products of auto intoxication. Dr. Herter of New York, by careful experiences in which he studied twenty people who had this osteo arthrit~~is~~, or deforming rheumatism, found Welch's bacillus in enormous quantities, manufacturing poisons which disturbed the matabolism of the body and caused the deforming process- changed the joints, but I fear I have wearied you out. I wish you all "Good Night" and happy dreams.

Constipation	15	meat eating & table	23	Page 15 con
Headache	19.	Tooth ache	26	" 19
Time for meals	21	Oysters	26	Lecture 43
		Tuberculosis diet	29	21
				23
				26
				29

QUESTION BOX LECTURE

at the Sanitarium Parlor, Battle Creek Mich., Monday January 29, 1912 at 8 P M.

by

Dr. J. H. Kellogg.

A patient said to me tonight, "Doctor, how long before I will be better?" I said, "tomorrow sure", and I think I told the truth. I hope you are all expecting to be better tomorrow. There is not any reason in the world why anybody in this room should not be better tomorrow than today, but here is the first question.

Question. Doesn't recent medical research show that the mind exercises a strong influence upon the digestion and assimilation, affecting the quantity and even the quality of the gastric juice?

Answer. Yes that is true.

Question. Are not the functions of the organs of digestion likely to be disturbed by concentration of thought upon them which results from the interesting new knowledge about their internal economy imparted to the patients of the Sanitarium by its distinguished lecturers.

Answer. I do not know about that. It looks to me as though some lawyer was getting me into trouble here. You have not a thing to do the whole week long but just hatch up hard questions for me to answer and you expect me to answer them off-hand impromptu.

Question. Are not doctors often bad patients?

Answer. Yes very bad, very bad, indeed. However, I must say the doctors we have here as patients are very good patients. We are always glad to have a doctor as a patient because he is such a good and obedient patient and because he appreciates so much the things that are being done for him.

I just came from examining the wife of a prominent druggist not more than 5,000 miles from here. He brought his wife here yesterday for treatment. I said to him, "Doctor, it seems you do not patronize your own institution?" "Oh, no", he said, "Oh, no, I do not take my own medicine. I sell medicine. I do not take it and my wife has not had very much of my medicine either." I thought he was a very good druggist. He appreciated the fact that his medicines are two-edged swords.

Well now, the Doctor who comes here to the Sanitarium comes here because he has faith. He knows a whole lot about the institution. He did before he came, or he would not come. He has had a whole lot of patients that have been coming here generally and going back showing how well they were, so he finally ventures to come himself. A doctor would not do such a thing as to get up, go off and leave his practice as long as he had no hope of getting any better.

That reminds me of an experience I had some years ago with a Doctor in this city. He has been dead some years now, old Dr. Tomlinson, Perhaps some of you knew him. His wife came here to see me. She said "the Doctor is very sick and wants you to come down and see him." This was more than thirty years ago. It was almost thirty-five years ago. She said "the Doctor has had a fever for several weeks and is getting worse all the time. He cannot sleep, he suffers so much pain, has a great deal of distress in his side and he is so miserable and he has taken every medicine he had in his medicine case." He had a large medicine case and the lady said he had taken every medicine he had. Of course, I took that as something of an exaggeration. She said, "He wants you to come down and see him and I think he ought to have a wet sheet pack because, you know, once I was up here at the Sanitarium and felt terribly bad and I got a wet sheet pack and felt so much better that I believe it will do him good. I want you to come down and give him a wet sheet pack." So I said I would go down and see him and see whether he is suitable to have a wet sheet pack and if he is,

we will give him one. So I went down and just got him into a pack and in came our good old friend Dr. Cox who has been dead a number of years now also—a fine old gentleman-- and he saw him in a wet sheet pack. It was rather an unusual thing to see a doctor in a wet sheet pack, and Dr. Cox was a good deal disturbed about it. 'Don't you think we better give him a stimulant of some kind,' he said. "Do you think he will live thorough it?" I said, "Wet sheet packs are very stimulating, doctor. If you ever took one I am sure you will know it was. He will be all right in a short time. We will go outside, pull down all the blinds and shut the door, and he will be asleep in a few moments," and sure enough he was, and it was the first time in several days. At the end of an hour he waked and felt very much better. He had a wet sheet pack the next day and he had also a fomentation applied over the pain in his side. He had really a sort of an acute gastritis, and he felt much better--he slept again, began to get an appetite after two or three days and after three days he was very, very much better. His wife said to him as I came in to see him. "Doctor, it is too good to keep. I can't keep it any longer. I have got to tell you about it. She said, "You know neighbor so-and-so had a fine colt about three weeks old and the colt got sick and its trouble was so much like the Doctor's that they used to come in every day to see what the Doctor had taken, then they went back and gave the same thing to the colt and the colt got worse and kept getting worse, as the Doctor did, and when you came and gave the Doctor a wet sheet pack, the next morning the folks were over and found the Doctor was better and they said, 'What have you done' and I said that he had had a wet sheet pack and told them all about how to give it, and you know they went home and gave that colt a wet sheet pack and one of the girls set down and held its head in her lap and a wet towel on his head, and the colt went to sleep, and the next day they came around to see what was being done, and they found the Doctor had had a fomentation over his liver, so they went home and hunted up that colt's liver and put a fomentation on it, then they

gave it a wet sheet pack again and the colt has been getting better right along with the Doctor, and now the colt and the Doctor are both better, and it was so funny I thought you ought to know about it." Well now the Doctor and the colt were both benefited in that case and the result was the Doctor was very much converted.) His wife had been converted before, but he was thoroughly converted to the value of these physiologic remedies.

Dr. Stephen Smith of New York was telling me of an interesting case just yesterday. It was a case of a lady that had cataract. He, himself, has remarkably fine sight. Although he is almost ninety years of age he wears glasses that a man of forty-five would be expected to wear, and he can read ordinary coarse print without any glasses at all. I was surprised to find he had such fine eyesight. He said, "I will tell you the secret of it. Twenty years ago I went to a Doctor and he said, 'You have got cataracts'--and I have cataracts on my eyes--'and it wont be very long before you will be blind, then you will have to have an operation.' I said I would not have an operation if I could help it, and about that time I read in a foreign periodical of a German Doctor somewhere who had discovered that the application to the eyes of hot water several times a day would prevent the development of cataract." Dr. Smith said, "I thought I would try it, and I did try it and my cataracts have not developed a particle since. My eyesight is fully as good as it was then." And I found a lady some years ago whose eyes had become so bad she could not see people across the road. She had been able to see people on a certain dock half a mile away--could see men walking there, but now she could not see men walking across the road. She had been to a Doctor who examined her eyes and told her she would soon have to have an operation or she would be blind, and I told her about the application to the eyes of hot water several times every day, and she began, and a year and a half afterward I found her and she could see people walking on the dock. She went to see the Doctor and the Doctor would not believe she was the same woman. He inquired again and a-

gain if she was really Mrs. E. C. Miller of such a town. He said, 'Why I examined your eyes and they do not agree at all with the record I have here. What have you been doing?' Well, she said, 'I have been bathing my eyes with hot water.' 'Hot water, I never heard of such a thing as that. I never heard of that before!' **But** I will guarantee he has been using hot water since that time. You see we are all the time getting surprises respecting the marvelous power, ~~of~~ the wonderful power there is in simple things.

This radium we were talking about the other day is a wonderfully simple thing, a simple mineral from the earth, yet it seems to have more curative power than any other substance ever discovered before. It is really wonderful what it is doing. So, as I said, we are always glad to have some doctors here because they are good patients. They do not come unless they have faith. Faith has a good deal to do with people getting well.

But now to come down to this question. Doctors are bad patients when they have to take their own medicine, you know. A Doctor feels discouraged about that for he is all the time thinking, -this is not going to do me any good. This is not going to do me a bit of good. Once in a while it goes rather bad with a **Doctor** when he ~~was~~ is compelled to take his own medicine.

In Southern Spain some years ago there was an outbreak of colera you remember, and one of the Doctors who had had a lot of these patients lost his life, but not from the colera. The people got it into their heads, poor fanatical superstitious people, that the doctors were poisoning the people. That the doctors had poisoned wells in order to make the people sick so they would have plenty of business, don't you see. But doctors never do such things as that. So the next time the doctor came to ~~visit~~ visit that community where this cholera had developed, the people all crowded in, people who had lost friends suffering from colera, and they took the medicine which the doctor had given to his patients and they compelled ~~him~~ the Doctor to take all of that medicine. Each one made

him take the same medicine that Doctor had given to his friend that died, and the Doctor died. He got an over-dose at any rate.

When a doctor has to depend upon the drugs that he has from his own experience learned to be very uncertain in their results, he has not very much hope, or very much faith; but a doctor is a good patient when he has a good foundation for his faith, and I think the same thing is true of every intelligent person. It is true when people concentrate their minds too much upon their internal functions, then there is an interference.

I remember very well a man who came around to see me after breakfast one morning and he said, "Doctor, my breakfast lies just like a stone in my stomach" Three hours afterward he was around again, and it had moved a couple of inches. He felt it over here. In two or three hours more it had gotten over to the other side two or three inches. He actually followed that breakfast from morning to night through all the twists and turnings of the small intestine. He never let it get out of his sight a minute and the ~~poor~~ poor stomach was in a state of stage fright. It was no wonder he had indigestion. I told him if he didn't stop thinking about his breakfast he would never get well. He seemed to be so bent upon talking about his stomach and thinking about his stomach that we couldn't do very much for him. It is wonderful what thinking of these internal organs will do.

I remember a lady who had a very bad stomach. She lived down in Adrian and she was with us only a few days. We did not do very much for her. She heard of Christian Science and thought she would try it. There was a great Christian Scientist down in Chicago that treated people by the absent method, so she went to him and engaged him to treat her. The duty of the Christian Scientist for the money paid him was to sit down in a chair at three o'clock every afternoon and think of this woman's stomach, and her stomach was to be healed by this process. At the end of three or four weeks she wrote me that she was wonderfully better and she said, "I know it is helping me because I sit down in the chair at home at the same time he does at 3 o'clock every afternoon, and just within a minute

or two I can always feel something flop in my stomach so I know the thing is working." Now the interesting thing about it was that that man did not begin to think until twenty minutes after she did, or thirty minutes after, for the time in Chicago is slower, don't you see. They had forgotten to make the proper arrangement for the difference in time, so the treatment really did not begin until about twenty or thirty minutes after her stomach flopped, so that had nothing at all to do with it. It was her own thinking and not the thinking of the Christian Scientist.

Well now to be serious and come down to this question. I suppose what it means is this. (Is it possible that giving people so much information about the condition of their internal functions is a detriment to them? That it causes them to think more about these internal functions than they ought to do and to their own injury? Now I am going to put a question to you. Most people who have something wrong with their stomachs know it. They know it. As long as your stomach is all right, you do not know you have a stomach. You do not feel anything there. You really are not conscious of any internal organ as long as they are all in health, but when one becomes conscious of some internal part, then he knows he has got a stomach. When he knows that he has a heart, or knows that he has a lung, it is because there is a diseased condition there. Now perhaps you had something of that sort. You knew you had some trouble with your liver and stomach, ^{Before} then you came here and you went to your doctor and ~~talked~~ asked him what the trouble was and he made a guess at it, and you went to another doctor and he made another guess. You went to another doctor and he guessed something else, and another doctor and he guessed something else. You went to a clairvoyant and got some other notion about it. You went, perhaps, to an X-ray man and he saw something else, so you finally came here and you were all mixed up about it and were very much worried about it.

I remember very well a man who came from Kansas City some years ago

and he was expecting to die any minute because he had seen a doctor who told him he had cancer of the stomach and he was in a terrible state of mind. He had made his will. He had seen a preacher. He had made all arrangements to die when he came here. I am telling you the story as he told it to me--and he came here to be made comfortable. To see if, perhaps there might something be done and he was a most anxious man. Now when we examined this man's stomach we found he had no cancer at all and we were able to say to him; "You are just as certain to get well as the sun shines if some accident does not befall you", and it changed his whole state of mind entirely. His face brightened up, the corners of his mouth that had been hanging away down, come up towards his ears and he began to look like another creature altogether. Now I think it did that man no harm to find out the real thing that was the matter with him. Suspense is a great deal worse than the knowledge of the facts, even though the facts may be bad. I remember reading some little time ago of a man in prison who was on trial for his life. He had committed a crime and if he was convicted he would be hanged. This man was in a terrible state of unrest. He could not sleep. He could not eat. He was in a terrible state until after the sentence was pronounced. On the first day of the following month, about two weeks later, he was to be hanged by the neck until dead, and he became happy right away; had a good night's sleep and slept soundly every night from that time until the day of his execution. On the day of ~~his~~ the execution he ate a good breakfast, walked up to the scaffold without flinching at all. The awful suspense was the thing that distressed him. When the worst was known, he simply prepared his mind for it and had no further disturbance about it. His mind was settled. Unrest is the thing that keeps us on tenterhooks, ~~isn't~~ isn't it? It is the uncertainty of things.

Now I became satisfied with this many years ago. I made up my mind I would have nothing to do with the old philosophy and the old theory that it was necessary to keep the sick man in ignorance about his condition. Keeping

him in ignorance does not relieve his mind. It does not keep his mind off his case any by keeping him in ignorance. The thing that keeps the sick man worrying is the uncertainty, the influence of wondering continually as to what is the matter. Whether the doctor knows what the matter is, whether he is doing the right thing or not. Now I became thoroughly satisfied, as I said, that the best thing to do for the sick man was to find out exactly what was the matter with him and to tell him all about it. Make him intelligent about it so that his mind might be at rest, so that he might be thoroughly convinced that there was a way out, that there was a road to health. So that we could hold up before him the Pisgah's top, the mountain top of health that he could climb step by step and by and by find himself at the top. And so that we might have his co-operation in the effort to help him.

Now I remember some years ago when I was climbing Vesuvius I had quite a lesson in co-operation. There was a big fat man behind me that had four men tugging him up. There were two pulling in front and two pushing behind, and it seems to me he was holding back all the while. Well it was an awful hot day and he was perspiring very freely. He and those four Italians were having an awful time in getting up that ~~ash~~ ash covered hill. You sink in about six inches at every step and slide back sometimes more than you get ahead. A young fellow came along and offered me a strap with a handle on the end of it, and he wanted to help me up and he insisted on my getting hold of it. I did not like the idea very well, but just for ^{the} sport of it, I said, "We will try it for a little while and we will see who can climb the fastest". So we climbed along up hill at a pretty lively rate. We had co-operation in that case. The boy was tickled when he got his small fee and a little something besides. He thought he had rather a nice time of it. I said to myself, Sometimes our patients at home are just like that. They are like that big fat man hanging back, just have to be lifted and carried and toted as they say down South, all the way, and some are just like another man that will co-operate. They will do all they

can to help themselves, and I find that is true of the intelligent man if he only knows what to do.)

I have looked around here since I have been home for a melancholy face and I have not seen one. I was told by somebody when I was in England that they thought these Sanitariums were not very good places for sick people because they get together and they talk about their diseases and they created a terribly melancholy atmosphere. I have not discovered that. I took a man up into the dining-room sometime ago who wanted to see the sick folks, and I said, "All right, I am going to the dining-room, come along." We went to the dining-room and looked about and we came away, and he said, "Doctor, where are the sick people?" I said, "We have just been to see them, at any rate the dining-room is full of them." He said, "You don't mean to say those are sick folks, do you?" "Certainly those are our patients. They are sick people." He said, "Well I don't think they eat like sick people." "Well they are getting better, don't you see. This is a process of reconstruction. Our patients come here to be reconstructed, renovated, renewed, and, of course, they have to put off the old man of disease and put on the new man of health, and they are putting on the new man up there. They go down into the bath-room and put the old man off. We scour him off, flagellate him, stew him. We adopt every possible means for getting rid of the old man, then we take him up into the dining-room and put on the new man, don't you see, and, of course, they are having an interesting time and a pleasant time because there is a sort of vacuum created that is calling for something to fill it."

Now I am going to ask a question of you. How many of you find the Sanitarium atmosphere is depressing to you? How many of you find ~~that~~ in coming here in contact with other sick people, that are getting well fast--how many of you find it is a depressing atmosphere. Is there anybody here who finds it so? Is there anybody here ~~whom~~ who has had that experience? Here is one man who

started to put his hand up, but he didn't understand just what I said because he comes here every year regularly to be cheered up, and I am sure he would not vote that way. You did not mean to say you find this a depressing, melancholy ~~atmosphere~~ atmosphere? No indeed, of course not. Is there anybody here who wants to vote on that side of the question. I do not see anybody. Now I would like to know how many find this an optimistic, cheerful atmosphere? Hands up, I would like to see. Now that looks as though it was anything but a melancholy place, doesn't it? Well now that is what a Sanitarium ought to be, but it isn't always so. (I was in a Sanitarium not so very long ago and I really thought it was rather a melancholy place, and there was a good reason for it. The patients didn't have a thing to do all day but just sit around a grunt and complain and find fault about themselves. They didn't have any treatment, no gymnastics, no baths. There was not a thing there but diet, just diet. The diet was rather odd and peculiar and at the table the patients were all scrapping as to what was the right kind of diet, and so it really was anything but a wholesome place for a sick person in my opinion. The aim of this institution is to keep everybody so busy getting well, to have a program so full of healthful activities, that there won't be any chance for melancholy feelings, and no chance to cultivate the blues.) (I remember a man in Chicago sometime ago who had been here three weeks. He came to the office and said, "Doctor, look here, I came here to rest. I have been overworked. I felt I needed to rest, and I came up here to rest, but here you have been putting me to work, and I have done more work in the last three weeks than I have done in the last ten years before." I said, "In my experience very few people suffer from overwork. It is not overwork, except overwork at the dinner table, that sort of work does harm a great many people. It is not ~~exercise~~ overwork. It is neglect of something. It is perhaps too long a time at an office. Perhaps not too many hours in the office if the time outside the office had been properly spent, but it is neglect of physical development, it is abuse of the body. Why there

is many a man who expends more energy digesting enormous great beefsteaks than he does in his business, a great deal more. There are thousands and hundred of thousands of men who are spending every day more energy in eliminating the nicotine from black cigars and some old pipe than they are on business. Nobody appreciates until they have investigated the matter what an enormous amount of waste energy occurs through the demands for the elimination of these poisons. Why many a man has been fairly renovated and made young again by persuading him to drop his old pipe and cigar. He did not know he had so much energy in him. Many a man has felt himself immediately young again by simply dropping his beefsteaks and ~~leaving~~ living on natural food.) Some of you were here a year ago when Mr. S. S. McClure was here, the editor of McClure's magazine, and Col. McClure ^{stood} ~~said~~ right here in this place, right where I am standing now, and he said that ~~dropping~~ adopting the Battle Creek Sanitarium diet had made him twenty-five years younger, giving up meat and all those unwholesome things, living naturally and simply, had made him twenty-five years younger, and his activities I am sure justified the statement, for instead of being a broken down man as he had been before, ~~he~~ had come to be a man who could outwork all his compeers in his editorial department and was just brim full of life and energy all the time. So for myself, I think I must say that (I think the principal thing for the intelligent man is to know just as much as possible about his case. Suppose you call a man in to take an inventory of your business, an expert to come in and take an inventory, an auditor to come and audit your books, to take an inventory of all your assets and present you a statement, and when he got through suppose he should say to you, "Well I do not know whether it is best for you to know about this or not. I think I ^{would} better not tell you anything about this but leave you in the dark." You would not feel like paying him for that, would you? You have asked him to take an inventory of your business, so you can know what is the state of your business. Now isn't it far more important

for a man to know the results of an inventory of his body. Is not an inventory of our vital assets a matter of far ~~a~~ greater importance than an inventory of our material assets. This body is the best thing we have.

I remember meeting some years ago away down in old Mexico--I was making a visit down there to a little mission I had helped to start, and I found when I got into the courtyard of the mission, the patio, I found waiting for me there a native Mexican who had come all the way from the border of Yucatan to see me. He had brought his wife and his three grownup sons and servants along. They had had to ride on horseback for three days, then they rode in a stage for two or three days, then they came up in a little coasting steamer along the shore and finally get to the port where they got a larger steamer which took them up to Tampico, and then they came ~~up~~ by rail to Guadalajara. This man was standing on the opposite side of the patio about 200 feet away and he was pointed out to me as I was being taken over to be introduced to him and he walked toward me as I ~~at~~ walked toward him. He was a tall, stately splendid looking man, a ~~dark~~ brown Mexican skin, and when I got close to him he suddenly threw out his arms and embraced me, gave me a tremendous hug. He said, "I am so glad to meet you, my brother." Well I was interested to know why he called me brother. I said, "I am very glad to see you, indeed, Sir, but why do you call me brother?" I wanted to ~~see~~ know his particular reason for addressing me ~~in~~ in that way. He said, "You are my brother because I believe just as you do. You think it is bad to take tea and coffee, so do I. You think it is bad to use tobacco, so do I. You think it is bad to drink whiskey, so do I. You think it is bad to eat pepper and irritating things of that kind and so do I. You and I are brothers," and he threw his arms about me again and gave me another ^{embrace} address. Now that man somehow found out away down in Yucatan that I believed just as he did. I said, "You must have had a very good mother to teach you such things as that. How did you find out it was bad to drink whiskey, bad to smoke tobacco and to do things of that sort, away out there in the wilderness where you live?"

He said, "My mother never taught me. I found it out myself. When I was a boy I said to myself, this body of mine is the best thing I have got. and I must take just as good care of it as I possibly can, and I must not eat anything to hurt it in any way because it is the best thing I have got and I must take good care of it. So he said; I noticed people who ate red pepper got sick, got something the matter with their stomachs, so I never eat pepper. I noticed that people who used whiskey got drunk, so I never drink any whiskey." He said, "I have a very large estate and several hundred men in my employ and whenever I find a man who drinks whiskey I always do my best to help him to get rid of it." So we had a very interesting conversation. This man from his own observation had found these things were harmful, so he put his foot down that he would have nothing to do with them. See what splendid character that showed. I said to myself, what Peter said long centuries ago is veritably true, that God has made of one blood all the various nations of mankind. This man had the same thoughts I have, although he had not the same opportunities I have had. Away down here in this wilderness of Mexico, he has arrived at the very same conclusion--that his body is worth taking care of. I wonder how many of us maintain that same attitude toward ourselves, that we should do nothing to harm our splendid bodies, do nothing to injure these splendid vital assets.

So when you ask a man to come and take an inventory of your assets,-- for that is what you ask of your doctor, your vital assets, don't you want to get a report of it? And is the intelligent man going to be injured by the report of it? On the other hand would not you feel that you were damaged and abused if there was anything suppressed. Of course there are two or three per cent of people perhaps, that are in such a state of mind that their cases cannot be discussed with them at all. That is true of certain people. Such people generally take no interest in it anyway. They have to be gotten a little better first, and yet even such patients I find it is better to give them some explanation of

their cases in order to get their co-operation. But I must hasten on; I see we have a lot of interesting questions here.

Question. What causes the heart to skip beats in connection with slow digestion?

Answer. The stomach and the heart are both supplied by the same nerve, the great **vagus** nerve, one branch of it goes to the heart and another branch goes to the stomach. Now when there is trouble in the stomach, this nerve is irritated and **disturbed** so that the heart may be disturbed by reflex action, by sympathy. Some of these heart irregularities are very serious. They are due to some chronic trouble with the heart. It is a condition known as heart throb, which is a very serious matter indeed. The diagnosis of these conditions, however, cannot be made by the ordinary methods of examination, and one of my errands to Europe this time was to visit Berlin to become familiar with the use of an apparatus which has been devised, an extremely intricate and ~~in-~~
~~genious~~ ingenious apparatus, by which the examination of the heart is made by simply ~~ing~~ taking hold of a couple of knobs, putting your hands into two vessels of water and the current that is generated by the heart is carried through an instrument, an extremely delicate current, and recorded. Makes marks on a piece of paper and the photograph is taken and this photograph is brought out all fixed, washed and ^{all} ready to be mounted, and you see there the doings of your heart. If the diagnosis has not been made before, this method shows a way to an **acurate** diagnosis of the condition of the heart.

Question. Why does boiled milk cause an inactive state of the bowels?

Answer. Boiled milk is completely digested, it leaves no residue behind. Now it is necessary that there should be a residue. Some animals do not seem to require such residue, but the human alimentary canal requires a residue just as does the alimentary canal of a **horse** or a cow or a sheep. If horses or cows are fed entirely upon grain or food stuff which is almost completely

digested with very little residue left behind, they would die--the bowels would become inactive and they would die of autointoxication or perhaps of acute inflammation--they require a large bulk. Now the human alimentary canal is constructed very much like the alimentary canal of these vegetable eating animals--it is like the alimentary canal of the monkey. The monkey eats a great deal of bulky food, leaves and tender sprouts, etc., so considerable bulk is needed. Now this bulk is to be found in vegetable food. It requires 300 grains of cellulose every day in order to give the bowels the proper bulk to work upon. Many people do not eat enough bulk. They eat food that is too easily digested, that is too completely digested. We want food which is easily digested, but food that leaves a residue behind. That will not be digested at all; that does not trouble the digestive organs any. What troubles the digestive organs is to take an article of food which is ordinarily one easily digestible and make it indigestible because the digestive organs will struggle with that thing a long, long time. That is what you do when you fry a bit of potato or when you fry meat. The potato requires saliva to digest it, and the meat requires gastric juice to digest it, but fat is digested down in the intestine by the pancreatic juice and the bile, so while the potato and the meat are both digested in the stomach by the saliva and the gastric juice, the fat is not digested in the stomach at all, but lower down. Now if the potato is fried, or if the meat is fried, if grease is cooked into anything, as we have for example cake and pastries of various kinds, there you have a combination of fat with starch in the form of flour. Now some combinations are extremely indigestible because they are made up of indigestible food, but at the same time food which is so combined with it that it cannot be properly digested, cannot be quickly digested. The fat interferes with the secretion of gastric juice and with the action of the saliva. Now if instead of that we have the starch mixed with bran for example. Take ordinary wheat flour, the bran and the starch mixed

together, the cellulose is not digestible at all, and this in the stomach will undergo prompt digestion because the indigestible parts will not be regarded by the digestive organs at all, but will be simply passed along and no attempt will be made to digest it; so it is very important that we should have a certain amount of bulk and the amount we require is about 300 grains, or two-thirds of an ounce of indigestible material to give the alimentary canal and the intestines the proper bulk to work upon. Even this is not sufficient in certain cases. This indigestible material especially in meat eaters, people who have been accustomed to a meat diet, is often a cellulose that is acted upon by germs; while it is not acted upon by any of the digestive juices, it is acted upon by certain germs in the intestine, and these germs convert this cellulose into ordinary illuminating gas, gas that will burn, and that is the cause of the development of so much gas in the intestine in persons who have been accustomed to a meat diet and who take with it a large amount of vegetable food. It is due to the action of these germs upon the cellulose. Now these germs are sometimes so numerous and so active that they eat up almost all the cellulose so there is no residue left. Cases have been observed in which only 5% of all the cellulose eaten was left behind because the germs had eaten up all the rest of it. As a rule they eat up about half of it. Germs destroy about half the cellulose, so it takes a very considerable amount of cellulose to give the intestine the residue required. The person needs, as I said before, at least two-thirds of an ounce, but there are some cases in which in spite of any amount of cellulose eaten the residue is not increased very much and the bulk is still too small. In such cases it is necessary to ~~give~~ to take a peculiar form of cellulose, some form of cellulose that these germs are not used to. Sometimes bran will be found more effective than cellulose found in turnips and in carrots and in beets and in other coarse vegetables, but there are cases in which even bran is digested, and in those cases the form of cellulose which is found in the Japanese seaweed known as hemi-

cellulose, is found to be most effective, and that is why Colax is effective because it is a cellulose in that harmless form which can be taken without any very great inconvenience and in a form which is not eaten up and destroyed by these bacteria which consume other kinds of cellulose. In ~~the presence of~~ persons who suffer from excessive cellulose digestion, in whom cellulose disappears in this manner--such persons are said to have a greedy colon, the colon eats up more cellulose than it ought to, so something must be done to counteract this. The use of Para-lax, of the preparation of refined extract from petroleum--a kind of petroleum found in Russia--is found to be very useful in these cases in ~~sating~~ ^{adding} bulk, also oil, so as to overcome this difficulty.

Question. Why can't we have better ventilation in the parlor?

Answer. Now just look around the windows here and you will see that we have plenty of ventilation. There is a regular wind blowing in here from under these windows. Under each window there is an opening three feet wide and we have a great fan down in the basement blowing a breeze that comes into the room under each one of those windows, and you see it is coming in with such force that it causes the leaves of the palm to wave. Now notice these large doors open at the end. ~~of the~~ Half the side of the room is open, and here is a large ventilator here in this great shaft. I do not know where you can find a room so well ventilated as this unless you go out doors. Three-hundred thousand cubic feet of air are put into this room every hour when it is occupied. Three-hundred thousand cubic feet of air are blown into this room during the hour we are here. Sometimes it gets a little bit warm, but it is not because the air is bad. Our man needs a little more training about that--he gets a little too much heat into the air so it is warmer but it is not impure,--Why it cannot be with such an amount of air constantly in circulation. I am glad to have this opportunity to make this little explanation so that you may know that if it seems a little unpleasant it is because it is too warm and not because the air is bad.

Question. What causes my head to ache?

Answer. That is a very interesting question. I examined a patient here today who came here sometime ago suffering from terrible headaches. Had a headache every week, and awful headache. What was the cause of it? I was convinced from a very few moments conversation that this was a case of toxic headache and nearly all headaches are toxic. Ninety-nine out of one-hundred are toxic headaches. A patient who has a headache is intoxicated,-- there are poisons in his blood that ~~ix~~ irritate the coverings of the brain, for that is where the ache is. These membranes are very sensitive and the nerves are very sensitive, and that is where the pain really is, or it may be in the nerves of the skin in some cases, it may be a neuralgic headache. Now, where do these poisons come from? They come from the colon, that is the source of the poisons. It is a regular Pandora's box of poisons. There are sixty-one different kinds of germs growing there in the colon, and every one making its particular kind of poison, and some of them making three or four or half a dozen different kinds of poisons. So you see there is plenty of cause for headaches. Now this lady said, "I am sure it is not my bowels. Why, my bowels move regularly every day." I made an investigation in my office this very day and I found that the lower half of the colon was in the condition of a sausage, it was just completely packed with hard tough materials. It was a miracle this woman was alive, and yet she said she was not conscious that there was anything the matter at all. Thousands of people are suffering in just this way. The bowels may move regularly every day, but they are two or three days behind time, don't you see. They are behind time all the while and it is necessary to do something to catch up. This lady will be caught up in two or three days and things will be going along all right, and I will guarantee these headaches will disappear. Thousands and thousands of patients have been here suffering from headaches of just this sort. There is not a day that we do not have twenty-five or thirty people under treatment here for headaches and ~~the~~

headaches disappear. A natural diet, a right diet, clean blood, a clean alimentary canal and there is not any chance for headaches.

Question: Is radium a good remedy for Arthritis Deformans.

Answer: I am sorry to say it is not. Arthritis Deformans is a disease in which the bones are corroded and diseased, and there is no hope in radium for this condition. The important thing in these cases is to get the alimentary canal clean and get rid of certain bacteria. Dr. Herter of New York ~~has~~ proved that persons suffering from Arthritis Deformans, or rheumatic gout at any rate, always have present in their intestine a dreadful germ known as Welch's bacillus, a germ discovered by Prof. Welch of John Hopkin's University, which is one of the most deadly germs known, and it is ^{the} dominant germ in these cases, and it is poisons produced by it which are the cause of this disease, in my opinion.

Question. Is it better for a professional man doing office work only to take the heartiest meal of the day at noon or in the evening?

Answer. Now it is very hard to say how a man should eat hygienically when he does not work hygienically. A man who is doing office work only, not doing any other kind of work at all, is not prepared to ~~eat~~ eat at any time and digest well, because muscular activity, physical work, is an absolute necessity for a healthy life. One cannot possibly live a healthy life without using his muscles. The Lord told Adam he must earn his bread by the sweat of his brow, and if a man refuses to work, he pretty soon finds he cannot digest; he cannot sleep. If you do not sweat to earn your bread, you have got to sweat for some other reason. There seems to be a great antipathy to sweating. The average man is looking for a job of some kind in which he can get a living without sweating. A man seems to be willing to sweat his brain a great deal more than to sweat his muscles or his skin. We need more skin activity. We find people with brown spots on their hands, brown circles around their eyes, and their skin is getting dingy, and simply because they do not sweat enough.

If you want to find the people with the very finest complexions in the world, seek out the people of North Africa, or go up in Scotland, or in the Northern part of Sweden, and you will see people with the very finest complexions you ever looked upon. I was surprised when I was in Russia four years ago to note the fine complexions of the people there. I soon discovered the secret of it. These people sweat, in the summer time; it is hot enough so they can sweat naturally, but in the winter time they habitually, constantly, everybody, whole families go together into the Sweating House. St. Petersburg is full of sweating houses; at almost any corner you can find a sweat house. You go in there and you will find a room, and in the room is a big porcelain stove in the corner and a place for a fire and a little way above that there is a door where you put in stones, and a lot of stones are put in there and heated by the fire. And along side the room there are shelves, and the people stretch themselves on these shelves, then they throw water on these hot stones and the steam comes rushing out, a great abundance of it, and fills the room, and the people on the top shelves, of course, get the hottest steam so they gradually move up from below until they get up to the top then they change places. And after sweating there for half an hour or so, then they have cold shower baths and shampoos, and they have apartments and sweat rooms with shampoo rooms. You can go into these establishments where there will be forty of these rooms in one great establishment, and sometimes all occupied. Go a little farther North and there every house has a little sweat house behind it. Before an Eskimo young man gets married he builds a sweat house, then they move into the sweat house and live there for a while. They must have a sweat house anyway, then when they get able they build a house in front of it to live in, but they can go into the sweat house, heat stones red hot and pour water on the hot stones, they stay there as long as they can stand it, then they run out and roll into the snow and then back into the sweat house again, and as I said, they have ^{the} ~~the~~ finest complexions of any people you can find in the world because they make their skins work; they keep them active.

Now about this eating. The best way for that professional man to eat is to eat a little breakfast about 10 o'clock and then take his dinner about 4 o'clock in the afternoon. He should stop work at 4 or 5 o'clock in the afternoon, then eat his dinner and then do some out-door work the rest of the time, and give himself a chance to live naturally for a while.

Question. If meat is unfit for use as food, how do you explain the fact that God permitted its use, as per the Mosaic law, and the fact that Christ also approved its use?

Answer. Now I am not a theologian--I cannot explain everything in the bible, and I do not believe anybody can for that matter. There are some things that cannot be explained by anybody unless you take them on faith, but as regards the Lord permitting the ancient Israelites to use meat, I think that is a clear proposition. He told them why it was they were permitted to do a whole lot of things. For instance Solomon had a thousand wives and concubines; David had four or five wives, as good a man as he was; Abraham had two wives and two concubines---it got him into trouble too, so he had to tell a "Whopper" to get out of it, and Jacob, as good a man as he was, had to do the same thing. They did a lot of things that were not right in those days, but these men were permitted to live and were certainly blessed abundantly, and Abraham was the father of the faithful, and yet he was far from being a perfect man. He was permitted to do a lot of things that we would not consider proper things to do, and there is somewhere in one of the books of Moses--I cannot give the text at this moment--but the explanation is given: "Because of the hardness of your hearts". Now if we want to know what the right way was, we must go away back to the beginning; if we want to know the perfect way for man, so far as the Bible is able to give us any information about it, you will find it in the first chapters of Genesis in the 29th verse, where God said to Adam: "Behold every fruit tree yielding fruit and every herb bearing seed, to you it shall be for meat." So, the meat that was given to the human race was the meat

which was borne on the fruit tree—"Every herb-bearing seed and every fruit tree bearing fruit, to you it shall be for meat." Adam received one wife, and that is the example for the whole race, so there is no excuse for polygamy. The argument in behalf of polygamy is just as good exactly as the argument in behalf of meat eating if based upon the Bible.

Question. What do you recommend for sleeplessness?

Answer. I would recommend just to sleep, and it is not so hard either. I sometimes get myself worked up to a pitch where it is hard to stop work. It seems as though the machinery would insist on going, but what I do is to get into a tub of water and to just go right to sleep there. I have slept in a bath-tub many a time, and I found this remarkable thing about it, that an hour's sleep in a bath-tub is worth two hours sleep out of it. One can sleep a great deal faster in a bath-tub than out of it. I suggested that to a friend of mine the other day. He had a great deal of trouble, and I said, "You do just what I do. I get into a bath-tub for half an hour nearly every night before I go to bed. I don't get a chance to sweat as much as I want to in my profession, so I give myself a sweat in that way, then turn on the cold water and make the bath neutral and lie there until I get sleepy and then I get out of the bath-tub, ^{dry off} as quietly as possible, roll into bed, go off to sleep and sleep like a log. When I wake in the morning, what I dream about I could not possibly tell you because I do not dream." I am certain that this neutral bath is the best one single prescription we can possibly give to a man with reference to sleep, as a means of producing sleep. There is not any drug that compares with it.)

Question. Is not sleep as essential to health as a correct diet?

Answer. Certainly it is.

Question. Do you advise wearing a nightcap?

Answer. Yes if the wind blows in on you, because the cold air on your head, at least if your hair is getting a little thin, will keep you awake,

so you better have a nightcap.

There is another condition under which you should wear a nightcap. I think I will have to tell you a little story about that so you won't forget it. A man came into my office one day and said, "Doctor, I have got my trunk packed. I am going home." I said, "Why you have not been here long enough to get well and you need treatment." "Well, Doctor", he said, "I cannot sleep; I cannot sleep." I said, "Well, I am surprised. What is the trouble? Do you want to be moved to some other part of the hall?" "No I don't want to be moved, but I cannot sleep, and I am going home." "Tell me what is the trouble". "Well, Doctor, if you won't tell anyone I will tell you. You know, Doctor, there is an old maid room next door to me and she snores, and she snores so loud that I cannot sleep." "Oh well!" I said, "I can stop that, I can stop anything that keeps you awake, there is no trouble about that at all. We will stop it." "Oh," he says, "You cannot say anything about it." "Yes, I can," I said. He said, "Well you could not stop her without telling her, then she would be an enemy of mine forever and she won't like it because I ^{told} tell you." I said, "I can manage it, trust it to me." He said, "How will you do it." "Well", I said, "I will call in to see her, don't you know, and while I am talking with her I will discover that she breathes through her mouth too much, then I will examine her throat and as soon as I look down her throat I can see that she snores, don't you see." "Well!" he said, "all right if you can do it, but I am afraid it won't do any good. But what are you going to have her do? How are you going to stop her?" "Why!" I said, "I am going to have her have a nightcap made and a chin-cap attachment to it, and tie this chin-cap up so tight that she cannot open her mouth, and then she cannot snore, because she cannot snore unless her mouth comes open, you know." He said, "All right, Doctor, I will try it one night." So I went to see the lady, and after talking with her a while I told her I discovered she snored and she was very much alarmed because this mouth breathing is a terrible thing that changes people's countenances, don't you know,

and makes the upper jaw project, and it causes the nose to spread out and it makes the features become very much distorted in time, so it is an awful thing. Well she became fully impressed that it was a dreadful thing and must be attended to right away, and she said, "How can I stop it?" So I explained to her about how to make this head-cap with a chin-cap attachment. So she went for cloth and needle and thread and she was working at it very rapidly, and I thought the thing was beautifully arranged, but next morning I found this gentleman had his trunk packed again and that he was going. He said, "Doctor, it is no use, it is no use. It is just as bad as ever." He said, "By the way, Doctor, perhaps I ought to tell you that I spoke to that lady and apologized to her for making her so much trouble." It was not long afterwards before I **saw** that lady with a very angry look coming down toward my office, and I slipped out the window, but she caught me not very long after and she said, "Outrageous! outrageous! Just think of all the trouble you put me to just for a man. It was outrageous for you to put me to that trouble just for a man."

Now then a nightcap may be worn under ~~similar~~^{some} circumstances with very great advantage, don't you see, and a chin-cap with it to stop snoring, if necessary, but ordinarily it is not needed.

Question. Should we eat the peeling of the apple?

Answer. You can if you like. I don't like apple peeling, but if you want to you can eat it--it won't do any particular harm.

Question. Is chewing gum injurious?

Answer. A man asked me that question on the steamer coming over from Europe. He asked me what I thought about it. "Well", I said, "If a man has forgotten to chew his dinner, I don't suppose it would do any harm if he should retire to some secluded corner and chew gum for half an hour for penance". Well he went off and didn't say anything more about it. But sometime ago I did admit, inadvertently, on one occasion that chewing gum might be advantageous, and

I never have forgiven myself for that mistake. It was not two weeks before I had a letter from a man away down in Vermont, who said, "I hear you use a great deal of spruce gum at the Battle Creek Sanitarium, and I have a couple of tons of it that I would like to sell you. How much will you pay for it?" So I have not been recommending chewing gum since.

Question. How can a toothache be cured?

Answer. I recommend a dentist. Well now if you want a temporary relief, I may say that the hot foot bath is one of the very best things in the cure of a toothache. There is wonderful power in heat to kill pain. A hot fomentation or a hot bag is also beneficial, but the hot foot bath is better than a hot bag on the face alone. If you are going to put the hot bag on, it must be above the jaw and not below it. You must have it above the level of the jaw only and not underneath. Put an ice-bag below and a hot bag above and you will have the very best kind of local application for a toothache. The reason for that is that the arteries that supply blood come up from below and if you apply hot at the lower part of the neck, it will enlarge the arteries and increase the supply, but if you put an ice-bag here, it will lessen the size of the arteries, decrease the flow of blood and so inhibit pain.

Question. Does your objection to meat eating extend to oysters?

Answer. It depends upon whether the oyster is an animal or not. Some people imagine oysters are vegetables and are not animals. They are really the very lowest of the animal creation. Some years ago I was making a little cruise in the Gulf of Mexico and studying through a water telescope the corals and vegetation deep down in the water. I spied a Portuguese man-of-war; reached down and got him and brought him ashore, and got my hand well stung for my wrong doing. I was enjoying the examination of the beautiful creature very much until I noticed a terrible odor and pretty soon I noticed that one of his long arms was wrapped tightly around a decomposing fish, and further investigation of the matter gave me a new biological fact that I had not known of before. That fish

had died; turned over on its back and floated on top of the water, its body being distended with decomposing gases in the interior. This Portuguese Man-of-war while sailing around on the tropical waters is simply looking for dead fish, and he gnaws away at that dead fish and eats what he can, but some pieces fall down. He eats at the first table and down below there are various other creatures of various sorts that catch some of the fragments as they come down. But away down in the bottom with his back sticking in the slime and ooze of the ocean bottom is an oyster with his mouth wide open ready to receive the last fragments that fall--they are the last of all the tables, eat after all the other diners are full. The oyster is the scavenger of scavengers--his duty is to clean the ocean bottom. If you find an oyster busy at its work in the ocean, you will see his shell is opened and the beard of the oyster, as it is called, is twined upon a slimy stem of seaweed and it is licking the slime off the stem. That is what the oyster lives on. Oysters are very fond of typhoid fever germs--that is one of the particular dainties of the oyster, and the oysters that are sold in New York city, and most others of our cities, that are gathered in the oyster beds near the mouths of rivers into which the sewer of so many large cities empty near the seashore--these oysters are almost always found to contain typhoid germs. Many an epidemic of typhoid has been traced to the use of oysters. Sometime ago there was an outbreak of typhoid fever in England traced directly to oysters, and when the fact was published in the newspapers of London, the oyster trade immediately went to pieces. The oyster men had a quantity of oysters on their hands and did not know what to do with them, and there was great consternation, and one of the remedies proposed was that Parliament should appoint oyster inspectors to inspect these oysters to see whether they had typhoid fever or not, but on further consideration this recommendation was abandoned because it was found it would be impossible for the British government to provide inspectors enough to feel the pulse and look at the tongue and take the temperature of every oyster on sale in the British markets,

so typhoid fever oysters are still on the market. The oyster is absolutely unfit for food. I entirely sympathize with that anonymous poet who said that, "Man must have had a palate covered o'er with brass or steel who on the rocky shore first broke the oozy oyster's pearly coat and risked the slimy morsel down his throat."

Question. Do you consider a Western or Southern climate more beneficial in chronic bronchitis than the climate of the Northern states?

Answer. Bronchitis is not a matter of weather or climate at all. It is not a matter of meteorological things at all. It is a disease which depends upon the climate of the colon and not upon the weather climate. It is due to poisons absorbed from the intestine. Correct this condition, improve the general nutrition, keep the colon thoroughly emptied and get rid of the poisons that come into the body through this source and the bronchitis quickly disappears. I found this was the prevalent idea in Europe in the great clinics where I have been. The idea of a change of climate being of so great benefit to patients suffering in this way is being rapidly abandoned.

Question. Is arteriosclerosis caused by Bright's disease?

Answer. No, but it is a cause of Bright's disease, is almost always associated with it.

Question. What does pain in the back of the neck indicate?

Answer. It is a common symptom of neurasthenia. It indicates a state of neurasthenia which generally means poisoning.

Question. The questioner and others to his knowledge find a change to a vegetable diet is accompanied with much gas formation causing discomfort, loss of sleep and digestive disturbances. May this be obviated, or must it be endured?

Answer. This formation of gas in the intestine on making a change of diet is due to the fact that the germs which are present in the meat finding no meat present fall upon the cellulose and act upon it and convert it into gas.

Now it is simply an inconvenience that is present while the flora is being changed. During this period of two or three weeks while the germs that grow there are being changed this gas condition will prevail, but it will pass off and disappear. The only thing to do is to persevere. To go back to meat eating is simply to introduce more gas forming germs. The germ which produces most of this gas is Welch's bacillus. It produces prodigious quantities of gas. A man was infected with Welch's bacillus by being bitten by a lion which got it by eating meat, so he himself was inoculated with it, and he was killed in three days by this germ. He was swollen up like a bladder. That is the germ that makes the gas in the intestine. You get them from meat. You want to get rid of those germs. That is the principal source from which they come.)

Question. What diet do you recommend for tuberculous patients?

Answer. Plenty of carbohydrates; plenty of fat, no meats.

Question. Are onions good food? They disagree with me.

Answer. They do with most people on account of the acrid irritating essential oil which they contain. Onions form a wholesome food, provided you get rid of the essential oil by long cooking or cooking with milk or cream. In this way the essential oil is extracted because it combines with the fat in the cream. Another good way is to roast the onion. The best method of all is to **roast** the onion in ashes. The very high temperature to which they are exposed volatilizes the oil and drives it out, and you have left a vegetable which is entirely wholesome.

Question. What are the important symptoms of Bright's Disease?

Answer. The most important symptoms are not usually recognized at all; they are the symptoms which occur before the appearance of albumin and casts, which are the commonly observed symptoms. A rise of blood pressure, attacks of headache, vertigo, sometimes a pallor of the skin and the occurrence of little bags under the eyes, brown spots on the skin, a brown dingy appearance of the skin; these are the symptoms which precede pronounced Bright's

Disease. The little symptoms of Bright's Disease, the French call these symptoms, and they are of great importance because the disease is still in a curable form. When a person is found to have pronounced Bright's Disease, when albumin and casts are present, that is the same thing as though we find a house with a fire in the basement which has worked its way up all the way through the house until it comes out through the roof and somebody shouts, "The house is on fire!" It has been on fire a long time, the inside is all burned out, it is gutted and the only thing to be done is to put out the fire and save the shell--if you can put the fire out. Now that is the condition in Bright's Disease. When a man comes with albumin and casts, that man cannot be cured. His kidneys are almost destroyed. The only thing that can be done is to prolong his life. The important thing is to find out the presence of Bright's Disease, the on-coming of it, before it has reached this serious stage, and that is why we examine so carefully every patient who comes here; that is why we make tests, not only for albumin and for casts, but it is why we take ^{the} blood pressure and why we test the renal efficiency. If I were a sick man or a patient, one of the first things I should certainly ask to have done would be a test of my renal efficiency. Fortunately we have methods of doing that now so that it is possible for a person to know the condition of his kidneys. I had a letter the other day from a man whose name is known to everyone of you. He is a man who is well known through^{out} the world for that matter, and he said, "I am not feeling very well, and I wish you would send on someone to get a specimen from my stomach, give me a test meal and find out what is the matter." So I sent a well-trained nurse with instructions to get, not only a test meal, but to get every other specimen from the man that he could possibly get. Take his blood pressure, bring a specimen of blood and every specimen he could possibly get, and he came back with half a dozen kinds of data, and after two or three days I was able to write the man a letter and when I came to write him I had to tell him, among other things, that his kidneys were doing only 47% of the work they ought to do. Now for a man of 65

years of age that is a very serious matter. His kidneys ought to be doing 100% of work, but they are only doing 62 1/2 % of work they ought to do, less than two-thirds. Now that means that man's chances for living twenty-five years are not very good because his kidneys are going to keep right on losing. His kidneys have reached the time when their surplus of energy is already used up, you see, because the kidneys will keep up to 100% of work just as long as they have got any surplus left, but when the margin of safety is all consumed, and it has got down to 62 1/2% and they are using all the ~~energy~~ energy they have, that means the kidneys cannot meet any emergency, and if that man should take a severe cold, the next thing would be an attack of Bright's disease. If he should ^{go} out and eat a big turkey dinner, or something of that sort, he would have an attack of acute inflammation of the kidneys; that is what scores of people have. ~~The~~ Next would come heart failure, then hardening of the arteries and apoplexy if he did not die of Bright's disease first. The thing to do is to nip these things in the bud, so we try to give everybody who comes here a chance to live if he wants to live; to learn the right way to live on for twenty-five years, or forty, or fifty years as the case may be, as the opportunities and the conditions may make it possible. But not everybody improves these opportunities. As I said, everybody ought to have every test they can possibly get to know what their real vital conditions are so that they may know how to fight the dangers that are before them.

Question. What can be done for catarrh of the stomach?

Answer. It can be cured.

Question. How do you justify your irregular hours of sleep?

Answer. I do not attempt to justify them. I belong to the fire department. I have to go when the bell rings. Suppose a fireman, when the alarm came in, said, "Well I am lacking a couple of hours of sleep. I think I will finish my nap first." What would you think of such a fireman as that. You

wouldn't have him. Nobody ever asks a Doctor when they send for him whether he has had any sleep or not. It would be better for them if they did sometime[^] because sometime[^] a sleepy doctor does not give as good advice as if he had had a little more.

Question. Will radium cure cancer?

Answer. Some forms of cancer it will.

Question. In ~~the~~ case of chronic bronchitis, what treatment would you advise?

Answer. Right diet and getting the colon in a healthy condition.

Question. Is a cough caused by exertion due to bronchitis?

Answer. No it means congestion of the lungs. It may be due to pleurisy, ~~bx~~ or bronchitis, or weak heart, or to small lungs, or a rigid chest, and I have known it to be due to the fact that the clothes were too tight, ~~the~~ corsets or something of that kind.

Question. Can goitre be cured by medicine?

Answer. No.

Question. Is an operation necessary

Answer. Seldom.

Question. What is the cause of hair changing back and forth from gray to dark.

Answer. The condition of the hair is an index to the vital condition of the body. If you pull out a hair and subject it to microscopical examination, you will find it varies. I have pulled out a hair here and I am trying to find a place here where I was forty-eight hours without any sleep. If I should examine it with sufficient care, I should find that place where I was forty-eight hours without any sleep and with very little food, for the hair would be thin there. There it is, I believe I have found it. It is about a quarter of an inch from the root of the hair. Now if you look at your nails you will see some little furrows and impressions there. Those are an index

of different events in your life, and the history of your life is written on every hair of your head, the varying tides of nutrition influence the hair.

Question. How much water should a person drink?

Answer. Two or three quarts a day.

Question. If the various water treatments used here produce itching of the skin, what would you advise?

Answer. Now let me tell you about that. If you have itching of the skin, it is not the water treatment, it is the dry air, the dryness of the air is the cause ~~of~~, and if you take pains to see that your skin is well covered with oil after every bath, that will obviate that difficulty. If you have any further trouble, report ~~to~~ it and some other thing will be done for ~~your relief~~ you to relieve it. Bathing with a little very hot water will usually relieve that sort of irritation entirely.

Question. How Long does it take to get rid of autointoxication?

Answer. That depends on how ~~conscientious~~ you are in doing the things you ought to do in fighting it.

Question. Please state what causes prickling of the kidneys in catarrh of the intestine.

Answer. The mucous membrane of the intestine is a filter and the putrefaction going on in the intestine does not do the body so much harm as it would do if it were not for the fact that the membrane lining the intestine is a good filter, a very excellent filter, but when one has catarrh of the intestine the mucous membrane becomes raw in places and where the mucous membrane is raw there is no filtration and the poisons pass through very readily and in great quantities, so a person who has colitis is likely to have Bright's Disease next---so his body is flooded with poisons and the kidneys are enormously overworked.

Question. Should any special care be taken of the scalp?

Answer. Just give it plenty of fresh air and sunshine and wash it

two or three times a week and it will take care of itself.

Question. What causes unconsciousness under ether?

Answer. That is an interesting story, but I think, perhaps, I can explain it in a word. In the back part of the brain are the cells which store energy, and they send out fingers; and in the front part of the brain are cells in which reside the consciousness, and they also send out fingers, and these fingers come very near together, but they do not quite touch. When we are asleep they are a little ~~ways~~ way apart, and when we are awake, they come in contact and that is consciousness. Ether causes a shrinking away of these fingers, so that they no longer touch, that is what ether does, and certain diseases, such as insanity in certain forms, causes a contact which cannot be broken up, and that produces fixed ideas. A person gets his mind on anything, and cannot get it off because he has made a contact there and cannot break it. The button of the door-bell sticks sometime and the bell keeps ringing all the time. We cannot get to sleep unless we can break this contact, but **break** the contact and we go right off to sleep at once. As long as the contact exists, we continue awake. Now tea has the effect to stimulate these cells and to cause the fingers to touch and to keep in contact, **that** is why tea keeps one awake, while ether has the opposite effect which causes them to be broken and lose consciousness.

Question. You say the Battle Creek Sanitarium is outside homeopathy, allopathy and old school medicine, etc., etc., but do you not give quinine ~~and~~ other drugs?

Answer. Yes if a person has malarial fever, we give quinine. We do not give quinine to **cure** it, but to ~~kill~~ kill the malarial bug, don't you see, then the patient gets well of himself. If we found a man had a snake ~~bitting~~ biting him, we would hit the snake, do something to it, kill it. We might give it tobacco, perhaps, for tobacco is good to kill snakes. It is excellent for that purpose, and that is about the only thing I know of that it is good for.

So if a man has malarial bugs that are biting him on the inside, we will give him quinine to destroy those parasites--it is perfectly legitimate to do that. We do not depend on drugs to cure at all--nature is the only healing power.

Question. Are fomentations applied to the head good for brain fag?

Answer. No, sponging with hot water is better, but that is a very good thing.

Question. What is the best treatment for sunstroke?

Answer. Have the patient lie down here and have two persons stand up on chairs and reach up as high as they can and pour ice-water on the head and spine, especially while two other people are rubbing him as vigorously as they can. That method is more than twenty-five years old. It was first proposed by old Dr. Hyppocrates twenty-five centuries ago and is used in the New York hospitals to this day.

Question. Why don't you have a law prohibiting the brushing of clothes in sleeping cars?

Answer. I will tell you ~~the~~ a good way to cure that. When the porter comes around to brush you off, you say, "Come here," and make him take you out in the smoking-room, or in the end of the car--"so we wont disturb anybody by setting up a dust." I am trying to educate every porter I get hold of. ~~It~~ I think it would be very difficult to pass such a law, yet it may be a law could be passed, it is a good idea.

Question. In artificial breathing is it best to lay the patient on the face or on the back.

Answer. On the face and on the back. Turn him on the face to breathe out and on the back to breathe in, That is one method of practicing artificial respiration, simply rolling him over and over; raise his arms up and that pulls the air in; put him on his face and it forces the air out.

Question. What is the effect of aromatic spirits of **ammonia** upon the heart.

Answer. I don't think it has any effect upon the heart, but I think

the reaction of the body against the **ammonia** does have some influence. It is a stimulant, too, through its influence on the nerves of the nose.

Question. How does ptomain poisoning differ from acute indigestion.

Answer. It is a lot worse. When I was in Europe a short time ago a lot of men got hold of ^{some} bad fish. They were poor tramps and they **got** hold of some fish that had been thrown out and they ate some of that, and more than sixty-five of them **died** of ptomain poisoning in a few days.

Question. Is table salt injurious?

Answer. If you take too much of it, yes. It causes contraction of the arteries and is bad in arteriosclerosis.

Question. What three foods can a man live on and keep in good health?

Answer. Bread and butter and potatoes would be a diet on which a man could live all right. He ought to have a little something fresh now and then. It would be better if he would swap off and take lettuce or cabbage and some other raw thing part of the time instead of potatoes. In an emergency he might eat grass. I have known people to be kept alive by eating grass.

Question. Explain the difference between antitoxin treatment and vaccination.

Answer. They are really very similar. Vaccination produces a disease ~~which produces~~ and the disease produces the antitoxins which produce immunity. Antitoxin is the serum of the blood of the horse in which the antitoxins ~~are~~ have already been developed. In vaccination you simply inoculate a person with germs of the disease and ~~in the course~~ ^{in the course} of that disease the antitoxins which produce immunity are produced. But in cases of antitoxin of dyptheria, the Doctor takes the serum from a horse that has been rendered immune, and this being injected into the body of the patient renders the body of the patient immune while the disease is present.

Is it probable that radium could help a rumbling in the ear not due to catarrh or other causes discernable by the ear specialist?

Answer. If ~~due~~ due to rheumatism, it might afford relief.

Question. How do you justify yourself in non-meat eating after the biblical injunction to eat meat?

Answer. I eat meat regularly, the original meat. "The fruit of every tree bearing fruit and every herb bearing seed to you it shall be for meat." That is the real meat, the original meat. Beefsteak is second-hand meat.

Question. What is the cause of one's heart thumping and jumping until he gets to the point of ~~the~~ shortness of breath.

Answer. I could not state without making an examination of the case. I know a young lady whose heart was thumping because she saw a certain young gentleman coming that she was acquainted with, and various other causes. Emotion may be a cause. I found a young lady today whose heart was thumping away at an awful rate because she had to come to my office to see me and she was scared.

Question. As the use of smoking and chewing tobacco seems to be on the increase and is becoming so common at banquets and public gatherings, state to what extent tobacco is injurious to people who do not use it and are frequently compelled to inhale the smoke.

Answer. This question has not been scientifically investigated. I am sure I have seen cases in which women were made sick by contact with tobacco using husbands, nauseated continually by the odors of his clothing and his breath, and I have known of little babies that were certainly made ill by contact with their fathers who were saturated with tobacco, but I could not give any positive facts of persons who had died in consequence of inhaling second-hand tobacco smoke. Nevertheless it is certainly very disagreeable.

Question. Explain inoculation.

Answer. It simply hastens immunity. The germs are cultivated and a large amount of the toxin is produced. The material is produced which develops anti-toxin and this is introduced into the body and causes the body to make a tremendous effort and immunity is established more quickly than it otherwise would be. That is a brief statement of it. The scientific statement would be much more elaborate.

Question. I came here to be cured of insomnia. I have been here ten days and am sleeping less than I did before.

Answer. I wish you would come to see me tonight as soon as I get through here, and I will show you how to sleep. There is no reason why anybody should ~~not~~ go on ten days without sleeping if you are doing all that can be done.

Question. Is one ever better for taking brandy in case of accident?

Answer. No, he is worse, because you give a man a lot of brandy and you do not know what his condition is. Shock, which is the result of a many accidents, is not diminished by brandy, but is increased by it. Alcohol increases shock, does not diminish it. That fact is now known to wide-awake physicians and brandy is not used for that purpose. Heat is used, a hot bath or fomentation and things of that kind, but brandy is no longer used. Dr. Crile of Cleveland, made experiments upon animals that proved that, so we have the absolute proof of it.

Question. Why does tuberculosis seldom affect the lungs of young children?

Answer. In young children the lungs are so active and vigorous that they are not likely to be the seat of this disease, but the lymphatic glands and the intestine are the principle seat of the disease in young children. But in a great many cases the glands of the chest become infected by young children and the disease extends down through these enlarged glands into the neck, or up from the enlarged glands in the intestine and by and by when the child is grown--when it reached adolescence at the age of twelve or so, then these tuberculous glands become active. When something happens to lower the vitality of the patient they may become active and tuberculosis of the lungs sets in.

Question. What is certified milk?

Answer. Certified milk is milk which is produced by a dairy which is regularly visited by qualified inspectors and ~~where~~ which complies with rules which are laid down by a society which has been organized for the purpose of such supervision.

Question. How does it differ from sterilized milk?

Answer. Sterilized milk has been cooked or partially cooked, while certified milk is raw milk, not cooked at all, but produced under conditions which are clean and wholesome so that it does not become infected and does not require sterilizing.

Question. To how young a baby may cold baths be given?

Answer. Babies should not be given very cold baths, except air baths. Water at 80 degrees is cold enough for a young baby.

Question. Why should protose nauseate and cause indigestion in people who have eaten meat and thought themselves benefited thereby?

Answer. Perhaps you are taking too much protein. There are very few people who need protose. Protose is pure protein, but, as I say, very few people need it. There is enough protein in the ordinary foods, in bread, for instance, there is an excess of protein, and in ordinary foodstuffs there is plenty of protein. The most of you would be better off if you did not eat Protose. I do not eat it.

Question. Are you troubled with seasickness when travelling on the ocean?

Answer. I am glad to say I passed through a hard storm going over, and we came through a very severe storm coming back, and I didn't have one single qualm, and was able to work all the time and had not the slightest disturbance from seasickness--for which I felt very grateful--although a good many of my fellow passengers did.

I find I have talked so long I fear I have tired you out. I hope you have a good night's rest notwithstanding. Good night.

Sept 15

Constipation.

From a question box lecture, Jan 29, 1912.

Question. Why does boiled milk cause an inactive state of the bowels?

Answer. Boiled milk is completely digested, it leaves no residue behind.

Now it is necessary that there should be a residue. Some animals do not seem to require such a residue, but the human alimentary canal requires a residue just as the alimentary canal of a horse or a cow or a sheep. If horses or cows are fed entirely upon grain or food stuff which is almost completely digested with very little residue left behind, they would die--the bowels would become inactive and they would die of autointoxication or perhaps of acute inflammation--they require a large bulk. Now the human alimentary canal is constructed very much like the alimentary canal of these vegetable eating animals--it is like the alimentary canal of the monkey. The monkey eats a great deal of bulky food, leaves, and tender sprouts, etc. so considerable bulk is needed. Now this bulk is to be found in vegetable food. It requires 300 grains of cellulose every day in order to give the bowels the proper bulk to work upon. Many people do not eat enough bulk. They eat food that is too easily digested, that is too completely digested. We want food which is easily digested but which leaves a residue behind. That will not be digested at all; that does not trouble the digestive organs any.) What troubles the digestive organs is to take an article of food which is ordinarily one easily digestible and make it indigestible because the digestive organs will struggle with the thing a long long time. That is what you do when you fry a bit of potato or when you fry meat. The potato requires saliva to digest it, and the meat requires gastric juice to digest it, but fat is digested down in the intestine by the pancreatic juice and the bile, so while the potato and the meat are both digested in the stomach by the saliva and the gastric juice, the fat is not digested in the stomach at all, but lower down. Now if the potato is fried, or if the meat is fried, if grease is cooked into anything, as we have for example cake and pastries of various kinds there you have a combination of fat with starch in the form of flour. Now some

combinations are extremely indigestible because they are made up of indigestible food, but at the same time food that is so combined with it that it cannot be properly digested, cannot be quickly digested. The fat interferes with the secretion of gastric juice and with the action of saliva. Now, if instead of that we have the starch mixed with bran for example. Take ordinary wheat flour, the bran and the starch mixed together, the cellulose is not digestible at all, and this in the stomach will undergo prompt digestion because the indigestible parts will not be regarded by the digestive organs at all, but will simply be passed along and no attempt will be made to digest it; so it is important that we should have a certain amount of bulk - and the amount we require is about 300 grains - or two thirds of an ounce of indigestible material to give the alimentary canal and the intestines the proper bulk to work upon. Even this is not sufficient in certain cases. This indigestible material especially in meat eaters, people who have been accustomed to a meat diet, is often a cellulose that is acted upon by germs; while it is not acted upon by any of the digestive juices, it is acted upon by certain germs in the intestine, and these germs convert this cellulose into ordinary illuminating gas, gas that will burn, and that is the cause of the development of so much gas in the intestine in persons who have been accustomed to meat diet and who take with it a large amount of vegetable food. It is due to the action of these germs upon the cellulose. Now these germs are sometimes so numerous and so active they eat up almost all the cellulose so there is no residue left. Cases have been observed in which only 5% of all the cellulose eaten was left behind because the germs had eaten up all the rest of it. As a rule they eat up about half of it.) Germs destroy about half the cellulose, so it takes a very considerable amount of cellulose to give the intestines the residue required. The person needs, as I said before, at least two thirds of an ounce, but (there are some cases in which in spite of any amount of cellulose eaten the residue is not increased very much and the bulk is still too small. In such cases it is necessary to take a peculiar form of cellulose, some form of cellulose which these germs are not used to. Sometimes bran will be found more effective than

cellulose found in turnips and in carrots and in beets and in other coarse vegetables, but there are cases in which even bran is digested, and in these cases the form of cellulose which is found in the Japanese seaweed known as hemi-cellulose, is found to be the most effective, and that is why colax is effective because it is a cellulose in that harmless form which is not eaten up and destroyed by these bacteria which consume the other forms of cellulose. In persons who suffer from excessive cellulose digestion, in whom cellulose disappears in this manner--such persons are said to have a greedy colon, the colon eats up more cellulose than it ought to, so something must be done to counteract this. The use of Para-lax, of the ~~XXXXXX~~ of the preparation of refined extract from petroleum--a kind of petroleum found in Russia--is found to be very useful in these cases in adding bulk, also oil, so as to overcome this difficulty.

Monthly Meeting of the
Health and Efficiency League of America

At the Sanatorium Parlor

Battle Creek, Mich., Tuesday, Jan. 30th, 1912,

at Eight P.M.

J. H. Kellogg, M.D., Chairman.

Chairman: I am glad to see there are so many interested in the Health and Efficiency League. This league was organized but years ago last summer at Chautauqua, N.Y. There happened to be upon deck Mr. Horace Fletcher, Prof. Irving Fisher, Mr. Dow, of Jamestown, Colo., S. S. McClure, of the McClure Magazine Co., of New York, and myself, and while we were chatting together one day it dawned upon us all of a sudden that it would be a fine thing to have an organization, a society or a league of men and women who are interested in promoting health and efficiency and promoting health, especially, because of its relation to efficiency, by taking better care of the body machine and giving it a better chance, and so we broached the matter to Dr. Vincent, the president of the Chautauqua and son of the famous Bishop Vincent, who was one of the founders of that enterprise, and he said—certainly, that is just the thing, so a public meeting was called and Dr. Vincent, now the president of the Minnesota University, presided. A committee was appointed by the assembly of 3000 people to organize the Health and Efficiency League, and that is where it was started. A great many good things have been born at Chautauqua and this is one of them.

Now the purpose of this league is to associate together the men and women who are interested in promoting physical efficiency, increasing their personal efficiency, and in promulgating principals of better living. No pledges are required of anybody and nobody is asked to subscribe to a pledge that he won't eat beefsteak or that he won't drink tea or coffee, or that he won't smoke, but the idea is to get all these meat eaters, smokers,

and other people into such good society that they will be ashamed to indulge these bad habits, you see. We find associates have a wonderful influence in keeping people straight. We found this society was very popular from the very beginning. We had no trouble at all in interesting many very distinguished men in it. We have among the Vice-Presidents some very eminent and distinguished men, some of the very best known men in the United States—men like Judge Ben Lindsay, of Denver, for example, whose name is a household word throughout the United States. He is a Vice President and on the Advisory Council. We have a large number of very distinguished names. Dr. Hurty, for example, Secretary of the State Board of Health, of Indiana, and I was surprised to find that Dr. ~~Hurter~~ Hurty did not require any coaching at all to bring him up to our standard. He gave several lectures at the Bay View assembly in this State where we held our annual meeting this last summer, and I was very much surprised to note the vigor with which he attacked the very things that this institute is protesting against. He was certainly very thorough going in his denunciation of the flesh foods, and mustard, pepper, pepper sauce, vinegar and all the other unwholesome things that we discard here. I found that his standard was quite as high as ours and I was quite interested when I noticed a little while before an article in the Chicago Tribune in which he took the position that the United States Government ought to pass laws prohibiting the manufacture and sale of vinegar and of mustard, pepper, pepper sauce and other things of that sort, because of their extreme unwholesomeness. Dr. Hurty is one of the men who has been combating benzoate of soda, don't you know. He is a very warm friend of Dr. Wiley and has been associated with him for many years and succeeded to his position at one of the Universities of Indiana where Dr. Wiley was formerly Professor of ~~History~~ Chemistry, and he takes just as strong a stand against the use of mustard, pepper, pepper sauce and vinegar as he does against benzoate of soda and the various anti-

optics that have been used in foods.

Somebody has remarked that man is the only animal that spoils his food before he eats it. Did you ever think about that? A horse, or an ox, or a cow, or a monkey takes his food in the very best possible form that he can get it, and that is the form in which nature serves it up to him, whereas man, instead of taking his food in the purity in which the Creator prepared it for him, he proceeds to spoil it to a very large degree before he eats it. He contaminates it so you actually have to have laws restraining men from this adulteration, and the time will come, I hope, when these laws will be administered in a very much more stringent way than they are at the present time, but I must not talk all the time. We are here tonight to have a monthly meeting of the Health and Efficiency League. You are all members of this League. Some of you, perhaps, did not know it, but we have an arrangement with the League by which every person who comes to the Battle Creek Sanatorium here and is admitted as a patient here, every such person becomes a member of the League, so your experiences here in the dining room and the bath room and the Swedish Movement room and the various other places you visit is a sort of initiation, don't you know. ^{You} ~~We~~ have heard that people admitted into the Free Mason lodges have to be initiated to ride goats and things of that sort. We do not put you through quite ~~such a~~ so serious an experience as that, perhaps, but have as an initiation what you are going through. I met a gentleman tonight who said he was going home tomorrow, and I said "Are you thoroughly ~~inixati~~ initiated, are you thoroughly converted?" He said, "Well, I guess I am!" "How about cigars?" "Well, I am not going to smoke any more." "How about beef-steak?" "Well, I am going to let that go by, too, for awhile. I will try it. If it works all right, I will stick to it." "How about tea and coffee?" "Well, I am not going to use them anymore." So I guess he is fairly well converted. I met a lady today who said she was here four years ago and she said "I have

not eaten a particle of meat since I was here; and she said more than that. "I have converted my husband. He does not eat meat, either, and I have converted my whole family. We do not any of us eat any meat." Her experiences remind me of a lady whose husband brought her here some years ago. She was terribly neuresthenic and I think he brought her here because he wanted a vacation, or a little period of quiet. His wife spent two or three months with us and then she went home for a visit for a few weeks, but he brought her back. She went home to get something to eat, she said. She said "Oh, your diet has not any flavor in it, or any taste to it. I must have something that has a taste to it. I want a square meal." So she went home to get a square meal. She spent three months with us, then went home ~~for~~ quite well, I am glad to say. Three years afterwards, I happened to be in the town where she ~~was~~ lived and I called at her house to see how she was getting along. I knocked at the door and the lady who came to the door said the lady of the house was not in. I said "Is she near by?" She said "Yes, she is close by." I said "Will she be in soon." "Well, I don't know." Then, with a smile on her face, she said "If you will go around the house, I think you will find her there somewhere." So I stepped around the house and found the lady up in the cherry tree and she was picking cherries, and her cheeks were just as rosy as the cherries were. She came down and we had a pleasant little chat. I said to her "How about the mustard and the pepper and those things? I suppose you were glad to get back home where you could get something to eat, weren't you?" She said "Doctor, do not say anything about that. Do you know what I did when I came home? The very first thing I did was to have the mustard, the pepper sauce bottle and the pepper box carried out and buried in the garden." "Why, I said, what did your poor husband do?" She said "Oh, I just brought him to it." So she instituted a reform and I think her husband

was willing to reform for the sake of having a good natured and even tempered wife. He found it had done her good so he was willing to try it.

Well, the idea of this Health and Efficiency League is to the principles of healthful living and to get men and women by the Association interested in the principles of right living. The race is going down. There are plenty of evidences of race ~~degeneration~~ degeneracy ^{human} all about us. There can be no question at all that the race is degenerating rapidly, and the only hope for the race is to be found in reform, in turning about, in changing our habits or life. When I was in London a short time ago, I visited the Zoological Garden and I noticed that they fed the monkeys on fruits, grains and nuts. In fact, I found their Bill o' Fare was about the same as my own. I got into the pantry and the kitchen where the cooking was done for the monkeys and observed the food which they were given, the food that was in the pantry. The cook for the monkeys' table opened the pantry doors and let me look in to see everything he had, and there was not a thing that I would not have been willing to eat, myself. In fact, there was not a thing ~~that~~ there but what I actually eat. There were potatoes, rice, bread, lettuce, apples, bananas, grapes, nuts. It was really a very delicious Bill o' Fare provided for those monkeys. I said "Don't you feed them meat?" The cook replied "No, never any meat." I said "Why?" "Because it is not natural for them." It is not natural for monkeys to eat meat. In their natural habitat, their natural place in the forest, they do not eat meat, so you see that keeper of monkeys was extremely anxious to know what was native for them, and was very particular to supply what was natural for them, to provide them with the conditions of their natural life. That is exactly what we have forgotten in our haste to be civilized, to develop our brains; we have quite forgotten and overlooked the fact that it is possible to get too far away from natural conditions of life. The biologists, the anthropologists, the scientists, who have studied the development of various

races of animals, all of these men will tell you that whenever an animal
 departs seriously, to any considerable degree, from its natural conditions
 of life, it is bound to degenerate. It will degenerate as a tribe; it will
 degenerate as a nation; it will degenerate as a species, and by and by
 will become extinct. That is the way the vast number of species that existed
 on this earth have become extinct, because they ceased to live under natural
 conditions. Climatic changes have taken place which have made it impossible
 for them to find natural conditions of life. Somewhere, away back in the ages
 our fore-fathers used to live in caves. I saw some of those cave men when
 I was in England. I saw the remains of the cave men and I was very much
 interested in looking them over. These poor cave men were driven into the
 caves, I suppose, by the terrible cold of the Glacial Period. Some of them
 escaped and got into warmer regions where they could live, but those that
 remained behind, perhaps our own ancestors, were compelled to live in these
 caves to avoid freezing to death. Now the time came where the weather changed,
 but you know the poor men had gotten so accustomed to the cave that they en-
 joyed it better than they did out of doors so we have never gotten out of the
 cave. We ^{are} still living in the cave. This house is a cave. These walls are
 made chiefly from the gravel of these surrounding holes. We just smoothed
 down the gravel and filled it up here, cementing it together with a little
 Portland Cement and so we are living in caves. We ought to be out doors.
 This cold, rigorous climate is not natural to us. The fact that we are
 living in doors is responsible for the tuberculosis that is so wide spread
 and carries off seventy-five people in every hundred thousand every year,
 destroys one-tenth of all the people who die. One-tenth of all the people
 living in the United States at the present time is going to die of tubercu-
 losis and one-tenth of all the people over forty years of age are going to die of
 cancer, and both these diseases, ^{are} ~~the~~ diseases of civilization. They do not
 exist outside of civilization. They are diseases which we have cultivated,

which we have created by our unnatural conditions of life, and these and many other things are leading us straight down to race extinction; race decay is apparent all about us and the purpose of this society is to try to point out a better way and to persuade as many men and women as possible to adopt a better way so we are trying to bring together all the people that believe in the principles of natural living and better living and are willing to stand up for it, and help to the idea, and that is why we have a Health and Efficiency League. But I am talking too long. I did not intend to say a word. I only came just to say a word of what this society ~~is~~ is and what it is for, and to let you know that you are members. So I hope you are going to be active members and not merely recipients or idle members. I came in to tell you of this and to introduce to you the distinguished speakers of the evening. We have with us two men of great distinction, whose names are household words the world over and we are going to have the great pleasure of hearing from them, Dr. Stephen Smith, of New York, who has been known throughout two generations for his good works and his great wisdom and skill as a physician and surgeon, and his great learning as an author, and his great ability as a lecturer, as the founder of Bellevue College, one of the ~~prime~~ founders, at least, of Bellevue College, and a lecturer in this college, a surgeon of Bellevue College for many, many years. ^I ~~We~~ assure you it is a very great pleasure, indeed, that I have to present this man to you who has done so much for his fellows, and who is willing to speak to us tonight, Dr. Stephen Smith (lot of applause).

Dr. Stephen Smith: I regret that I am not a member of this society.

Dr. Kellogg: We are going to make you a member tonight, doctor.

Dr. Smith: Well, I am going to say I belong to another society and that is Sickness ~~the~~ efficiency. I have, during my life time, until I was sixty years of age, at least, had scarcely a day of health, and as I have understood by this program that Dr. Kellogg was to speak of Health

and Sir Horace was to speak on "and" and I was to speak on Efficiency, I will devote myself to sickness and inefficiency, which, after all, leads to exactly the same conclusion- that the line of teaching here is good in both cases. Certainly it was in mine, and it may interest you to hear the other side. Health and efficiency you are all very familiar with, except those who have been sick most of their life time, but you have had very liberal knowledge of what the sick people in the world can do and have done. There are two kinds of efficiency; one is muscular- that is probably good health, and there is another, mental, and I think that is generally due to sickness, to a ~~decre~~ diseased condition of the body by which the nervous system becomes highly stimulated, much more so than the muscular part of the body, and it is quite a remarkable fact that the more important works ~~of~~ in the world of a mental kind, those that require a high grade of genius and nervous energy have been done by the sick people, and not by the healthy, the well, the muscular and the uproarious kind. The that people generally have is due to the health that gives physical or muscular strength. The most celebrated writer of the last half of the 19th century was an invalid from his boyhood. That was Carlyle, a man who had indigestion all the time and it was impossible for him to live on anything but peculiarly baked bread and porridge. A similar case was Robert Louis Stevenson, one of the greatest fiction writers of the day. He was a man who was especially ~~happy~~ cheerful all his life and finally died of ~~tuberculosis~~/ tuberculosis. He hardly ever saw a well day, and we could go farther back and find that among the ancient writers, the most mentioned were the sickly ones. Aristotle, the greatest man of the early ages of history was a very feeble man and a very small man, so much so that he was the subject of ridicule and of jest, and yet mentally, he had the greatest efficiency of any man of his period, and so it was true even of Alexander, the Great, and of his great accomplishments. He was born so small it is said his mother rocked him in her slipper. He died at twenty-six, and

he was then regarded as a little boy about fifteen, feeble from his boyhood. He lived on goat's milk most of his life time. My earliest experiments was that of ill health, During all of ~~which~~ the time which ought to be the efficient period of a man's life, I was unable to digest any ordinary foods, other than milk and ^{what} was called in those days in the central part of the state, milk porridge. I do not know what you call it here—milk with flour stirred in it and boiled, and that was my staple food, I think, for sixty years, during all of the efficient period of my life, the result of which was that muscular activity and muscular health I never had. I intended to be a farmer— I was born on a farm and a small farm at that, and an unpaying farm at that, and my early life was spent in very hard work on the farm, with what ability I had, and I was selected to be the farmer of the family, but at twenty-three, I gave it up, as it was impossible for me to have health and efficiency, so I took to the other tact, sickness and ~~inefficiency~~, and studied medicine to learn how to live, and the early period of my life was therefore altogether one without health and efficiency, but with sickness. What little attainments I made were due to my simple mode of living, and I have no doubt the health that I enjoy at my present period of life, which borders on ninety, is due to the fact that I did live on that very simple diet and reserved in that way all my digestive organs for a later period in life. Now, I can eat a fairly good meal, as I think some of my friends here are aware and can digest it fairly well, and get the benefit of it, but during that period of early life which was lead through sheer circumstances under which I had lived to mental activity, rather than physical and my course in medicines was what probably saved me from a great deal of sickness of a much severer type than I should have had if ~~if~~ I had had the ordinary health and the ordinary food.

I have certainly outlived my three brothers who were men of health, though I have a sister living at ninety-five who is in good health. My mother died at ninety-seven, so heredity tells something on the side of long life. Some of my early experiences, perhaps, would interest you- both in regard to the efficiency of the sick man trying to do his duty and trying to earn his living, and at the same time showing some of the peculiarities of the early work that a physician is subjected to. My studies mostly were in Buffalo, with Prof. Hamilton, who was then a very noted surgeon and prominent in his profession as a lecturer and a teacher of surgery. During the time I was there, I was in very bad health, and especially from this ^{auto-intoxication?} threatened indigestion, and towards the latter part of it we were ~~harassed~~ with an invasion of cholera. In 1849, during the invasion of cholera that year we were attending lectures during that winter, and the cholera made its appearance at New Orleans, and gradually made its way up the Mississippi River. The lecturers, almost all of them, lectured on cholera, and as most students have all the diseases that they study, the most of us had the incipient ~~sym-~~ ~~ptoms~~ symptoms of cholera all winter. At any rate, I did, and anticipated that before the close of the lectures, cholera would make its appearance in Buffalo. I was a candidate for a position in the hospital of the Sisters of Charity, the first hospital started in Buffalo and being a student of Prof. Hamilton, who was the surgeon for the hospital, I was an applicant, but Dr. Flint was President of the hospital, and he had a student who was a native of Buffalo and by means of certain influence he had, he succeeded in getting into the hospital, very much to my regret. That occurred in the fall of that year. During the winter, cholera made its appearance at Vicksburg, then at Memphis. We watched the

papers every day to see it creeping along up the Mississippi River, and as it approached, the lecturers were more than ardent in their descriptions of cholera and the horrors of it, and the first infection since the epidemic of 1832 which was so very vital, so that everybody was on the alert and everybody was ~~brightening~~ ^{frightened} ~~enthusiastically~~ at the prospect of a new invasion of cholera. ~~the~~ Near the close of the winter it got up as far as Cincinnati and then concluded to come to Cleveland, and from Cleveland would naturally come down the lake with the sailors and we should have it in Buffalo. Just at the close of the lectures, it was reported at Cleveland and the student all left for their homes immediately. I had remained a few days, but I had prepared myself to leave and the following day after the close of school a case was reported in the Sisters Hospital, and it was also reported to me by Dr. Hamilton that the student resident ~~had~~ left the hospital and it was open now for me to take my turn. I remonstrated against entering the hospital and on account of the condition of my health, I could not think of taking care of cholera patients but he was very much distressed about it, and he said it was ~~exceedingly~~ ^{exceedingly} for a student ^{- I} ~~who~~ happened to be his only student - to show the white feather when the enemy appeared, so I unpacked my trunk and told him I would stay. I went to the hospital the following day and remained there four months. The interesting feature of that invasion of cholera at Buffalo was an incident that occurred towards the close of the epidemic. We had treated the patients with all kinds of ordinary remedies, such as were then in use, especially calomel. It was thought that the liver must be acted upon and that calomel must be given in large doses. Our patients died at an enormous rate. We generally received about twenty in the afternoon, and the next morning there would be scarcely one left. Frequently, one or two, but most of them had gone. Dr. Flint was so

persistent in his use of calomel that he directed me to give as high as 60 grains at a dose. I remember of his telling me that. Of course, it killed the patient very promptly and we lost them all, and I did not have any attack of cholera, or any symptom of it. The sisters were extremely kind to me and knew of my fright, and of my danger and discomfiture, etc., and I got along perfectly well until towards the close of the epidemic when a young man came in in the early stages of it with vomiting and cramps, and so on, and he said "I want to treat myself." He had heard that all our cases died, nearly, and he had a permit to treat himself, and I told him I was very glad to have him treat himself. I had finished my work and they nearly all died. Well, I asked him what he wanted, He said "I want a pail of cold water and a dipper that will hold a quart, although drinking water was ~~taxidly~~ strictly forbidden by Dr. Flint. Under ^{no} ~~any~~ circumstances would he allow them to drink because they would vomit if they did, which was a fact, and yet the thirst and desire for water was something beyond description. The yelling and screaming of patients are in my ears yet, of those poor creatures calling for water, water, water, and I could not give them any, but in desperation without Dr. Flint knowing it I gave this man a pail of water, told him to help himself, and on my leaving the room, he said "I will boss this job, don't you worry." I went in occasionally in the afternoon to see how he was getting along and I was amused at his appearance. He would take a whole dipper full of water, sit up and drink it down, smack his lips and say "fine" and lie down. In about two minutes he would arise and puckering up his mouth like a hose, he would deposit that water in the farther corner- it went clear over to the farther corner of the room and then he would lie down again. I experienced some regret that he would drink water against our advice, but he said "I will boss this job, don't you worry." I went in from time to time and along about four

I want a room by myself

oclock I went in and I found that he was asleep and on waking him up, I found that he had drunk about one-half of the pail of water, and deposited it in the farther corner of the room, and had gone asleep. Now, as a matter of fact, the next morning that man was perfectly well, and came down among the patients and made so much fun of my treatment I had to dismiss him to get rid of him. He made so much disturbance and unrest among the patients. Well, it was a lesson— an objective lesson of the most impressive kind to me, that the whole system of treating cholera should be by water. The patient's call for water was the call of the blood vessels thoroughly emptied of their serum, the blood globules unable to circulate, which meant death, and he wanted water to fill these vessels. Now, at first, he threw off a part of the water, but he ~~did~~ retained a little of it. The next time he retained a little more and a little more, until finally the blood vessels became filled and he was well. So he was a perfectly well man the next day. I mention it as one of my experiences in that early period of my ~~studying~~ student life.

I went to New York afterwards to finish my studies in '49. I went on the Erie Railroad and I went to the New York terminal of that road, which was at Tarrytown, about thirty miles from New York, and went from there to the city in a steamboat. You can see the changes that have taken place since I went to New York as a perfect stranger, knowing no one, to finish my course of lectures at the college of "Physicians and Surgeons". I had made up my mind to stay and practice in ^{some} ~~this~~ country town and I selected a little town in our neighborhood of about 400 people and thought it would be my destiny to practice medicine there, but a day or two before I was leaving the city after graduation, I saw a notice put up in Bellevue Hospital on the black board that there would be an examination for years ^{on} interne the following Saturday at two o'clock and all students who wished

to compete would send in their names. I sent in my own very much at random, and after I did send it in, I was very sorry because I was satisfied that on account of the number of applications and the high grade of the students I should not have any chance for the position, but nevertheless I went to the hospital at two o'clock and we had a most scorching examination. There were eleven applicants for the one place, and the severest examination that I ever had or ever gave to another student, and I went home, finished packing my trunk, expecting to leave on Monday, but at two o'clock on Sunday, I got a letter from Dr. VanBuren, requesting me to appear for duty at Bellevue Hospital at nine o'clock the next morning—Monday—which changed the whole course of my life and I spent two years at Bellevue Hospital and enjoyed all the advantages of the hospital, as a place of study, and all of its advantages as a place of amusement, for the resident staff of students very much liked amusement, fun of every nature, when they were not on duty, and I finished when the course ended by settling in New York. One event occurred during the time I was in the hospital, which was amusing, but it is only one of a great variety of instances that occurred to resident medical students. There were twelve of us there. Our warden was an old man, a very testy old gentleman who went about the wards dressed in evening dress, in great style, and was unapproachable by the students, but he kept us on almshouse fare, and it was so very poor that we were all the time in trouble with him, tormenting him, trying to get better food, and in that way there was a constant hostility between the warden and the students. One day, one young student was sitting in his room cleaning a pistol, and while he was doing it, there was a cat ^{passing} ~~passed~~ the door, and he fired at the cat, and right behind the cat was the warden making his usual tour through the hospital. Of course, he flew into a rage, attacked the young man, called him a murderer, took him down to the commissioners and reported him as having attempted assassination, and so on. The result was that

he wanted him discharged immediately, so the young man was brought before the committee for trial. The president of that committee, Sigcon Droper, "Sim"

Droper, they used to call him, a humorous man, stood up high in clinical circles there there, and who was very much given to humor. The trial went on and it was decided finally after hearing all of the evidence that there was no premeditated intent to kill the warden, and therefore while it was a very grave offence, still the young man might be allowed to remain his term out, provided he behaved himself, but he must appear before the committee remonstrated with by the President. So young Alexander was brought in and in a humble way went before the President, a very large man who addressed him in very solemn ~~terms~~ terms on the seriousness of his offense and his liabilities, etc., but there were mitigating circumstances so they would allow him to remain providing he would behave himself hereafter. When he got through he stepped down to the young man and whispered in his ear "If I had had my way, you would have been dismissed instantly for being such a poor shot at such big game." Most of our escapades terminated in about that way, but we had a good time. I spent the evenings generally in operas or theatres where we were getting amusements.

I must mention two or three of my early experiences. As during the early years in New York, young men make a great many more discoveries than they make money, and that was peculiarly my case, Being a rather retiring person, I did not make, certainly, very great advancement, but I made some very interesting discoveries and one or two of them may interest you. I had read in the books and had heard in the lectures a great deal about a certain old ~~aferism~~ ~~that~~ that was dwelt on continually by the lecturers and I had occasion to demonstrate the fact in the first week of my practice. My patient was an Irish woman, a very stalwart washerwoman, the mother of six children, and when I came to leave after the usual prescription, I gave her the usual advice of the books—^{what} she must do, and in the most solemn way. I

told her that she must lie in bed nine days flat on her back, must not stir; she must not have any company; she must live on a certain kind of soup, etc. and the detail was very great and the items were very important and impressed with all the vigor and methods that I had, it being my first case. I left with a great deal of satisfaction, that I had done my duty to my patient, and the next morning when I came to visit her- I ought to say, some of you may be acquainted ~~with~~ with New York, that she lived in a hovel on the corner of 6th Avenue and 19th Street, where a great department store was built afterwards. As I approached the house, I heard loud singing, and listening a little I heard something that sounded like dancing and finally I went up and sure enough she was singing and dancing and there seemed to be a great deal of hilarity in the house. I opened the door very cautiously and looked in. My patient was in the middle of the floor dancing, and singing, and a half dozen Irish women, neighbors, were sitting by and enjoying themselves. She was singing Moore's famous song "The harp that once in Tara's Hall, the soul of music sent". She fell on the floor amid laughter and I assumed an attitude of the greatest severity, remonstrated with her, told her why I had told her before about lying ~~in~~ in bed on her back for nine days, and she said she had to get up to get her husband's breakfast that morning and she ate with him and of course, ~~she~~ that aggravated the case very much. I spoke very sharply to her, then she got up and in a very emphatic way said "Oh, get out, boy; I guess I know more about this business than you do." I left satisfied that medicine is bad. She made a good recovery.

I had a strange case very soon afterwards that is beyond all possibility of explaining that I know of, by any therapeutic discoveries that I have made. I had as a patient, a little child about twelve years old, a girl, who was attacked with erysipelas, the whole side of the face was involved and it was spreading towards the head. I ~~make~~ ^{made} the usual hospital prescription

which was 10 grains of $\frac{1}{2}$ opium and 10 grains of lead to be dissolved in water and applications made continually, the object being to prevent its spreading any farther to the head. I wrote out the prescription and I wrote out the directions and I told the mother, a Scotch woman, who seemed to be very dull and stupid, and I left at five o'clock in the afternoon and at six, I felt very much disturbed, it being one of my first patients, and feeling very anxious about the case as it was erysipelas of the head, I went to see her and I found her very sound asleep, snoring, and at once it dawned upon me that possibly that woman had made a mistake and given the dose instead of using it as a wash and I could not wake the child. I found it sound asleep, and I asked the mother how she had used the medicine "Oh, she said, 'It was calomel and jalap. I ~~had~~ knew the child needed it badly and I gave it all. I even dusted the paper so she took it all.'" Well, I thought of this child taking 10 grains of opium and 10 grains of sugar of lead- enough to kill about twenty people- she had swallowed it all. It was horrifying to me, and I tried to awaken her and I couldn't, and finally I made an ematic, gave the child a dose of ematic large enough to kill ^{it} it, anyway, and the child did not vomit; ~~but~~ was so stupid, so far gone, so I got three over-doses of poison all ready for the child. However, to make the case simple, I knew there would be a coroner's inquest the next day. I told the mother the disease was spreading towards the head and probably would spread over the head and if it did, the child would not live until morning, and then I left. Of course, I did not sleep any that night. I tried to imagine how I would get through the coroner's inquest, what would be my defense, or rather I went to the druggist to see if the man had really given me ematics. I found he had, and I inquired as to its quality and he said the opium was excellent. He had just got it; it was a fresh importation, and so was good opium, so that fixed the case in my mind. ^The next morning I waited to give a certification of death hour after hour until I had got into a nervous mood. I made up my mind I would give up the practice

of medicine, and that would end my work in that direction if that was to be the result of my practice. About 11 o'clock I concluded I would face the music- I would go there and see why they did not send for a certificate of death. When I came to the door on the second floor of the tenement house, I heard a rustling in the house, but everything else was perfectly still. I opened the door very cautiously, and that little child was running across the floor flying a kite without a particle of erysipelas on its face or head, or any sign of its former disease. It had not vomited and had retained all that medicine and the child got well and remained well, and what is more interesting, the child's mother became one of my great promoters in that district. She recommended me to everybody as one of the best prescribers in critical cases she ever saw.

I want to relate one or two more instances. It is amazing to me as I look back upon the experiences to ^{note} ~~know~~ the enormous progress made in medicine, in every branch of it, and to think how little I knew and how little doctors knew then, and ^{we} I do not know much now as a matter of fact compared with what we will know bye and bye, but then how little I knew, and yet after all what success I had. I presume I attended 1,000 cases during those early periods of my work in New York in the slums, and I never lost a case and never had any trouble with a case, and yet I never thought even of washing my hands, much less of anything like disinfecting. Even soap was never thought of in the tenement houses where filth was ~~and~~ yet the perfect exemption I had from a loss is now a wonder to me when I go into one of these modern establishments and see the enormous preparation for cleansing, disinfection, etc., and which does save so many cases. We had those days a great deal of what was called Pourperal feature ⁽¹⁹⁾ at Bellevue Hospital every year. It ~~had~~ ^{would begin} ~~begin~~ about the first of October and ~~ended~~ end with the spring and they lose nearly all of the cases that occurred under the methods of treat-

ment. Prof. Alonza Clark who was a very philosophic man and a man of excellent sense lectured in the country and he had heard of a case of peritonitis in that country ~~and he had heard which~~ where he had given opium in large doses and the patient recovered, and he came back to Bellevue in the fall fully determined to see if that was not the proper treatment for that class of cases and the physicians in attendance all agreed to give him every case and give him a ward where he could make the trial. Well, about the first of October, the first case occurred, and he put the patient under treatment by the resident physician, a very able young man, but a very determined man, and directed him how to give this opium. He told him to give it continually until he got the patient to sleep and then to keep the patient profoundly narcotized until the symptoms disappeared. He carried his doses up to two grains every hour but did not get the patient to sleep and the patient died of the disease, and very much to the mortification of Dr. Clark, as there were more cases likely to occur and he was very much dissatisfied but he made some inquiry in the ward in regard to some one of the staff who would carry out his treatment fully, and I was selected to carry it out. He took me to one side and asked me if I ever attended public school, and he said "did you ever hear a teacher say 'I will whip you within an inch of your life?'" I said I had. I had not only heard it but I had suffered it, too. "Well, then, -he said- I guess you will understand what I mean. Now, I mean you shall give this opium to within an inch of their lives. Do not stop by the amount of the dose, nor stop by the circulation; when the pulse goes down and they sleep soundly and the fever has subsided, then you may diminish your dose, but not until then. In a very few days, four cases occurred, and I had them under my charge. I was to begin with a grain of opium every hour and I was to give them medicine regularly and get the best nurses we had to watch the cases. I gave ^{one} ~~the~~ grains every hour for three hours, and no effect, increasing it to two grains every hour for three more hours and no effect; so I went on until I got up to four grains,

that
 and by ~~the~~ time I had had a day and a night constantly giving the treatment.
 With the 4th grain, I went to sleep and slept three or four hours without
 being called in the night and I woke up very much horrified that so much time
 had elapsed and I ran over to the ward and found four patients lying there, and
 a tallow candle was on the mantle and ~~shone~~ ^{shone} on the faces of these patients.
 A young woman who lay in the middle bed was very pale naturally, and when I
 came up to call, I found the nurse^s sitting in her rocking chair sound asleep,
 and I found this patient with her eyes open, her jaws fallen, no pulse, and
 I concluded that I had in that case something really here. The
 others were all doing very well, were very soundly asleep. I went to work and
 aroused the nurse and after three or four hours of artificial respiration and
 various methods I brought her to and they all got well, she among the others.
 A ~~5th~~/~~6~~ fifth case came in very soon after, while these were under treatment,
 and I gave her one opium grain every hour, two grains, then four grains, but
 not a particle of effect on her, then five grains, and so on up to twelve
 grains every hour until she took 1960 grains of opium, when she slept very
 slightly and mildly and she recovered. Five cases occurred. That is a cir-
 cumstance that never was known in the hospital before. That treatment has
 never been nor was my treatment of this erysipelas case ever repeat-
 ed, but it was a fact that the first five executive cases recovered under that
 treatment.

I will relate one incident more. I was appointed a delegate to
 the chancery^{al} convention of health that was held in Paris under President
 Cleveland and I spent three months in ~~various~~ Paris during that time. We had
 constantly every night great State dinners. There were three or four of us
 who went over to Paris, and the members of the President's Cabinet were given
 the dinners. They generally had twenty or thirty courses. It occurred to me
 how I was ever going to live through such dinners as those with my ~~dyspeptic~~
 dyspeptic habits. At the time of the third dinner, I found I was sitting

next to a prominent physician of Paris whose works I had read, and I found he could speak a little English and I could understand some French, and between us, we got in some conversation, and I finally said to him "Doctor, I ~~am~~ an old dyspeptic. I don't see how I am ever going to get through with these dinners and eat all these little nick-nacksthat are brought us, called courses. He said "I can tell you^l. I will help you out of that. We have a perfect understanding, and I want you to understand that every one of these courses is scientifically arranged, and there is ^a ~~the~~ wine after each course, and that wine will digest that course before the next comes on so if you will follow strictly that rule that we have, eating each course and drinking each wine, you will go home hungry in the morning." I followed ~~this~~ the prescription and I have not had any dyspepsia since.

An incident occurred towards the close that I will mention and stop. The President gives two great receptions in a year, and large numbers are invited to the palace, which are the members of his office, about eighty members, were invited to attend. We had to go in a particular way, and I had a letter to the dean of the reporters there, and he advised me about my dress on such occasions as that. I was in company of the other members of the committee, and Dr. Shakespeare, of Philadelphia, who had been in Paris a great deal, and spoke French very well, and a physician ~~the committee~~ from the Marine Hospital service, and we thought we had to go in together, and as I did not understand French very well, Dr. Shakespeare coached me as to what I was to say. I had my two daughters by me and I was to go in and introduce myself, leaving my name and Dr. Shakespeare would be immediately behind me, and if I was in any trouble, he would help me out, so I came to the door and I opened it, and entered, and there was a very stalwart usher in his uniform, and he stepped down, wanted my name, and I gave it. There was an enormous crowd with the President and I gave my name as Dr. Stephen Smith of New York. He did not quite catch it, and I emphasized the word "Stephen" somewhat, I suppose. At any rate, he rose up and cried out at the top of his voice "Baron Stein". Well, I, of course, forgot my leanings looking behind and ~~looked~~ at the president who happened to be far back behind me, I went

towards him. He then shook hands with me and waved me to the and I went over, passed down this line, and the gentlemen bowed and the ladies waved their handkerchiefs, and I went in behind at the end of it and mixed in with the crowd, and there I met my friend. "Why, he said, do you know what an honor was done to you? The President never steps out of line unless for a Prince or a Baron. (Loud applause).

Dr. Kellogg: We have all been delightfully entertained with this recital of early experiences. We have been witnesses of the fact that efficiency does not end with sixty years. Dr. Smith is, himself, a most magnificent exponent of the simple life idea. With ninety years of active, vigorous life, he has only told you of some of the early incidents. He has not told you of the great work he has done ever since for the State of New York as a commissioner of the insane and a constant visitor for thirty years of the insane asylums and public institutions, as a member of the State Board of Charities, besides lecture work and a busy life as a doctor and the author of numerous text books; he has not told you about that. I think if we knew all about the work he has been doing, we would make up our minds he was a pretty stalwart man and not very much of an invalid after all, and certainly when he can stand up here at ninety years, with eyes that are only forty-five and with a brain that is still young and vigorous as ever, you must see that it pays to be good. He did not tell you, I think, that he never smoked in his life; he has never been much of a meat eater; he lived on bread and milk and he never has been a drinker of alcohol in his life. He has lived a temperate, sober and active life, and we are very glad to meet him here today.

Now, I am sure you will be glad to hear from Sir Horace Plunkett, the man who has done so much for Ireland, in the which he has instituted there the agricultural publication, and in other ways, in business and in social ways, and through opportunities which have been provided, and he has set an example for the whole world, and it is very pleasant to see that this example has been imitated and the same reform was instituted in England, Wales, and Scotland, and I am hoping that we shall pattern after some of these things in this country.