Team Work.

QUESTION BOX LECTURE AT THE SANITARIUM PARLOR, THURSDAY, APRIL 27, 1916,

at 8:00 P. M. by J. H. Kellogg, M. D.

I have been spending a few weeks doing a little literary work and spying out the numerous little discoveries and items of progress down in New York City. I ran across a number of very interesting things and met a number of old medical friends and had a very pleasant time. One of the things I found of very, very great interest in my chats with New York doctors was the fact that the leading men whoeare standing at the head of the profession are becoming fully awakened to the fact that a certain class of sick people need institutional treatment. Forty years ago nobody had institutional treatment unless he was a lunatic. It was recognized that a lunatic must have institutional treatment. A little later it was discovered that the drunkard, the chronic inebriate, needed institutional treatment and then a little later we found that the feebleminded must go to institutions for care and we had institutions for the lunatics and for drunkards and for feebleminded, idiots and imbeciles, and of course, a long time before that we had institutions for the benefit of people who lacked inhibition, people who could not restrain their disposition to lay hold of some other person's property, for example, and people who suffered from that peculiar mental defect sometimes called kleptomania but when this institution was started, when we first organized the Sanitarium forty years ago next fall, the fact was not appreciated by anybody, practically among physicians, that the chronic invalid needed institutional treatment just as much as the insane, the drunkard, the feebleminded or the criminal. The reason why was because the nature of chronic disease was not understood. Forty years ago we were almost in the darkness of the dark ages as regards the nature of disease. Disease was looked upon still as an enemy to be fought. The doctor looked upon a man who

had a fever as a man who was attacked by a fever and a fever was a condition in which he was manifesting a great excess of vitality and something must be done to lower his vitality. Fever was regarded as a condition of a great excess of vitality. If a man had pneumonia he must be bled. You remember what happened to George Washington, the father of his country,--he had a sore throat and the doctor bled him a pint or two until he fainted and the sore throat wasn't any better and the next day he was bled again and he was bled day after day until he was bled to death. The father of his country was actually bled to death. No physician at the present time would dare treat a patient the way George Washington was treated. He would be prosecuted for mal-practice and turned out of the medical society. No respectable medical society would tolerate any man as a member who would treat any patient as George Washington was treated but at that time science had not progressed far enough to show us the real nature of disease and the way out of captivity to morbid conditions. We didn't know anything about germs and nobody had yet recognized the relation of germs to disease so forty years ago when I had sixty-five cases of thyphoid fever, one after another in an epidemic in the town here from infected water supplies, they all got well and not one of them had a drop of medicine. They were all treated with water. That was such a new thing that I was looked upon as very much of a charlatan and humbug. Nobody would believe what I said. When I told them I had sixty-five cases of typhoid fever and they all got well nobody would believe it for nobody had ever heard of such a thing. About one-third of the cases of typhoid fever were expected to die in those days and they would die under the influence of bleeding, purging and big doses of whiskey. However, at the present time there has been such a revelation that no doctor would think of doing to his patients what doctors did in those days and the progressive men of the profession are recognizing that the world has advanced and are basing their practice upon rational methods. Some thirty odd years ago I came very near being turned out of the medical society because I practiced rational medicine, believed in the

use of water for fevers and putting cold compresses on the chest in pneumonia. I was actually charged with trying to found a new school of medicine known as rational medicine and charges were preferred against me and I came within one vote of being turned out of the medical society for using rational measures, and the one vote that saved me was my own vote. I voted to stay in and not being out yet I had a right to vote, of course. I was not voting for myself simply. I was voting for you too. I had a vision in my mind of the change that was going to take place in the world, the advance that was going to be made and I saw a long line of hundreds of doctors coming after me and I said, "I must stand my ground for them because this thing is right and it is bound to prove right." The doctors who were dealing with me were sincere honest men and the two years occupied in discussing my case gave me a chance to shed a whole lot of light upon the question of the rational treatment of disease and the result was that the next year I was by unanimous vote elected president of the same society that tried to turn me out. That question has not been raised since. I was amazed to find that among the leading men of New York City what a liberal spirit has come into the profession in the last twenty-five years. It was most interesting to see how men that are leaders in the profession are in thorough sympathy with the things that are being done here in this institution, that the condition that once existed because of a lack of standing and appreciation has passed away and at the present time the medical profession are making marvelous advances in all directions. Medicine is no longer an empirical art. It has come to be a science resting upon a solid foundation of laboratory research and of general scientific investigation, thorough, careful, clerical observation. The prejudice which the public acquired in past years against the medical profession has at the present time no foundation. Some of you perhaps have been reading some of the articles in The American Magazine by Dr. Cabot of Boston. Dr. Cabot is speaking out in meeting, so to speak. He is talking very plainly to the public of the things doctors have been saying to one another for a long time back and he makes the statement that at

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the present time nobody has a chance to get real thoroughgoing and scientific medical attention except the very rich and the very poor. The very poor go the hospital and get the benefit of team work, get the benefit of most skilled advice they could possibly get. Thoroughgoing chemists make the researches with referenc e to the excretions and one specialist examine the lungs and another one examines the heart and another one examines the eyes and ears , another one will investigate the stomach and so this whole corps of scientific experts will study the case and they are pretty sure to find what is the matter with him. Then the patient gets treatment such as his case requires. Nobody has any bias or prejudice or feels the necessity of cultivating practice or for doing an operation for the sake of getting a fee. Nobody sees any reason why he should keep his patient under treatment a minute longer than is absolutely necessary because the sooner the doctor can get the patient well and off his hands, the better it is for the doctor and the rich man who is able to pay all these different specialists can go from one to another and can get finally the combined opinions of them all and get his case thoroughly summed up but the average man who goes to the family doctor cannot possibly get all the advantages that can be afforded by up-to-date medical science because there is no man that lives at the present time that can carry in his head and his fingers and his ears and his eyes all the skill and all the knowledge that has been acquired by the great mass of medical men, hundreds and thousands of them working ~~x~~ in all parts of the world andespecially during the last twenty-five or thirty years, keeping up knowledge to such an extent that no one man can contain it all and it is only by having the benefit of the work of a corps of experts that it is possible for anybody to get a thorough knowledge of his case. It is only in institutions that it is possible to find this team work. That is why we have these extensive laboratories and our lung specialkists and X-ray specialists and

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eye, ear and nose and throat specialists and other specialists to make a stay of individual cases. It is the thing we have been aiming at for the last forty years and it is very interesting to me to see that prominent men in the profession have come in these latter days to speak out openly to the public as well as to the profession with reference to the importance of reorganizing the relations between medical men and the public. The public must be taught, must be given a better idea of what medical science is, and must recognize the fact that it is impossible for any man to be a whole medical faculty. It is very rare indeed that a doctor can be found who can go into a laboratory and do all the fine technical chemical work necessary for the research of a case including the blood and all the excretions and the microscopical and chemical examinations. It is necessary for a man to keep himself in perfect practice. It is just as necessary for the chemist and the bacteriologist to keep himself in practice by hard study and hard work and concentering as it is for a Paderewski to keep himself in practice in order to perform upon the piano in the finest way possible for him to do so we are right at the present time in a very interesting period of social reform, of reconstruction, of relation, especially between the medical profession and the public and I feel grateful that this institution is contributing something toward this progress because this present ideal that is placed before the public and the profession is the very ideal that we have been working toward during the last forty years and I hope have to some degree attained. I was interested in glancing over our records a day or two ago since I have returned home. I got a report of statistical research that I set going a little while ago to ascertain what proportion of our patients were sent here by physicians. Forty years ago no patients were sent here by physicians. Physicians did their best to keep patients from coming here. It was really considered a disreputable thing for anybody to come to this

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institution, so erratic, so fadish, so unconventional. I was very much gratified to find that last year 1,000 of our patients fully 25% of our patients, were sent to us by physicians. The first three months of this year, I find that nearly 300 patients have already been sent to us by physicians which would mean at least 1500 for the year. This shows a change in attitude of the medical profession not toward me or toward this institution especially, but toward the methods which are being persued and the fundamental thing in the Battle Creek Sanitarium method is simply right living. I endeavored to sum up this idea in a few words on the cover of the May number of the Good Health which is just out today and I will read it to you.

"THE SIN OF CIVILIZATION"

A few years ago a man wrote a book about -- "The Cause and Cure of Civilization".

Civilization is sick.

The race of man is dying.

The human species is running out.

The ancient fiat, "The soul that sinneth, it shall die," is but the statement of a great biologic truth.

The mortal sin of civilization is unbiologic living.

The laws of biology are as immutable, and as inescapable, as the Decalogue.

The race is dying because we incur the penalty of death by wrong habits, instead of earning the right to life by right habits.

Natural living is just as necessary for the physical well being of a man as for a horse or a monkey.

Why not live the Simple Life?

Begin today!

Men and women I find everywhere and doctors too are coming to see that this idea of the simple life, of simple living, is not simply a fad. There are great forces that work in our bodies, in our constitution, in our race, that have been working ever since the beginning of the human race, that have made us what we are. We cannot rebel against those forces. We cannot go contrary to them without suffering damage just as man cannot ignore the law of gravitation without suffering damage. The other day I saw an account of a man sitting in a windowsill who toppled over and fell three stories to the pavement and broke his neck and died on the spot. That man ignored the law of gravitation. If he had kept himself in proper relation to the law of gravitation he would be alive today. Biology has a grip upon us just as gravitation does. We cannot possibly escape. The law of biology says that man is a primate, for example, and belongs to the same class of beings as the higher apes which are so nearly like us, that the blood of the ape will mingle with human blood in perfect harmony. If the blood of an ox is put into human veins it disappears and is eaten up but if we put the blood of an ape into human veins its corpuscles recognize the corpuscles of human blood as friends and brothers. When I go to New York I always go around to the Bronx and call upon my kin there and make a great bow to the chimpanzees and they seem very glad to see me and to recognize me. They come up to the bars and chatter and I have a very nice visit. We are so like these creatures and more so internally than externally. Both have the same sort of stomachs, lungs and nervous systems. There is a bundle of nerves that runs down the spinal cord that is called the pyramidal tract and the function of that tract is to furnish special nerves which make it possible for us to execute fine delicate movements such as we execute in writing and in very fine delicate work such as a lady does when she makes embroidery or in knitting or in doing some other fine thing of that sort. Man and the ape are the only creatures on earth xxx

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that have that pyramidal tract. That is the reason why the monkey has fingers because he has nerves that enable him to use those fingers. A gentleman told me in New York that he was recently in the Congo and he met a trader who had a chimpanzee that would sit at his table and eat just exactly as the human being would. He would even drink wine and smoke. He was so thoroughly civilized and behaved in every way like his master. Biology says that we belong to the same class of beings as these higher apes. When we watch the ape we find he does not have a slaughterhouse anywhere near his habitation. We do not find a whole lot of bones around the little cave or thicket in which the chimpanzee lives and cares for its young. We find instead the shells of nuts and other things that this creature has gathered in. We find storehouses where he has stored his food that he has gathered from the forest. He has taken his meals right from the hand of Nature just as they were prepared for him and that he has not done anything to damage them. Man, in fact, is the only creature that lives that spoils his food, poisons it, before he eats it. The monkey would not do such a thing. He takes his

16,028 food just as God made it for him. He takes it in the most perfect condition in which it can be produced. In New York I attended a very interesting meeting at the Academy of Medicine in which the question of the feeding of young children was discussed. One question was, why is it that babies die when they are fed on cow's milk which has been sterilized. If we feed babies on cow's milk without sterilizing they are killed by the barnyard germs but if we sterilize the milk, the babies are killed for some reason not very well understood. It is found that the cooking of milk destroys something very necessary for human life. To this something the name "vitamines" has been recently given. These vitamines are delicate substances which require the very finest and most skillful application of chemical science to discover them. Dr. Funk, the discoverer, was present at the Academy of Medicine. He is recognized as a man who has done a great work and has made a very important

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addition to human knowledge in the discovery of these new, important and absolutely essential food elements, vitamines. It is found out that by simply boiling the milk which was thought to be a splendid and perfectly safe thing that it kills all the barnyard germs and other foreign germs that go t into the milk the babies who ate it got scurvy and were weasoned and did not grow properly. We found that if a baby who was being fed on cow's milk could get a teaspoonful a day of mother's milk it seemed to be worth more to the baby than all the cowws milk it ate. The baby who did not get the natural food would not grow but would be weasoned and rickety and a miserable specimen of humanity and would likely grow up crippled and dwarfed. It is found that this difficulty can be obviated by simply giving the baby some orange juice. Some people have been giving the baby a teaspoonful of orange juice three times a day. The best experience showed that the baby must have at least an ounce of orange juice a day and if it has got scurvy and rickets it must have three or four ounces. It must have all the orange juice you can make it take. Why is orange juice so beneficial? Because man has done nothing to it. It is furnished to the baby just as God made it you see and nothing has been done to destroy these delicate elements. Think of the multitudes of people who are living on canned foods. It is so handy to empty food already cooked out of a can, warm it up, and put it on the table. Think of the vast multitudes of people who are living on canned beans, canned meats, canned peas, and everything canned. All those canned foods are lacking in vitamines. They are all scurvy-producing foods and Dr. Holt, a very eminent authority in New York, known the whole world over, said"there isn't any doubt a great number of people are suffering from symptoms they cannot understand and do not know what the trouble is simply because they are lacking vitamines." They live on a diet that excludes vitamines. A person makes a breakfast, for instance, of the ordinary bill of fare. For example, fried eggs, fried pork, fried bacon or something of that sort and white bread and perhaps

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oleomargarine in place of butter or even sterilized butter or tea and coffee or tea and toast. Such a person is starving himself. He is certain to besuffering from a deficient diet. Researches that have been made in recent times have shown that pellagra is simply a deficient disease. Dr. Funk told me personally that he had become thoroughly satisfied that pellagra is nothing indeed but chronic scurvy and I think quite likely he is right. All these things can be corrected by simple regulation of the diet. All these researches show that the biologic way is the safe way and that the departures we make from the natural way of life of the primitive man, are dangerous and we cannot treat ourselves in any old way that we please without running a tremendous risk of destroying ourselves and actually finally exterminating the human race. We are suffering from perverted civilization, and a good thing to do would be to turn over a new leaf right away. The first article you find in " Good Health" this month is "Make a Garden". Man was born in a garden. Just where this garden was, the theologians and the archeologists and the other science mongers are not yet fully agreed. But of one thing we are certain--it was out of doors! And the "Golden Age" of the old Greeks and Romans--that also was an out-of-doors experience--a life close to Nature. In that happy age, every man sowed and tilled and reaped. Every man earned his bread by the sweat of his brow. And the exercise and the sweat kept his blood clean. If all men were farmers today, and all women were farmers, nine-tenths of the doctors would have to go out of business. The average farmer lives fifteen years longer than the average city dweller. The reason is obvious. The farmer lives in the light and the air--pure air. City dwellers--the doctors, the lawyers, the professors, the clerks, the stenographers, the factory workers--live in the shade and breathe dust germs. We're all born as wild as was the first baby or the latest savage. But we are tamed in our "bringing up" and the taming--

called education and civilizati on--spoils us, inoculates us with disease and infects us with abnormal tastes and appetites. And so we grow up cripples and perverts and wear ourselves out prematurely with unnatural habits and death-inviting practices. We are born wild and born farmers. If we are not farmers,we are wronged--we are robbed of our birthright! Farming is man's most natural, most honorable calling. If you can't have a big farm, you can have a little one, and get all the primitive joy and boisterous health, and ravenous appetite and sound digestion, dreamless sleep and mental poise and peace and intellectual vim and snap and endurance that comes from living biologically. Make a garden. If you don't own one, rent one. Get the loan of a vacant lot. Preempt a corner of unimproved public domain. Get a bit of mother earth somewhere, some way, "by hook or crook"--you're entitled to it! It's your birthright. Then stir the ground with a plow and tickle it with a hoe, and see the things grow! And won't you be proud when you see thesweet corn coming up--the potatoes, the squashes, the cucumbers and melons, the cabbages, the "greens," and all the rest of the garden glories glistening and sparkling with dew pearls when you go out to earn an appetite for breakfast in the early morn! Ida Tarbell once told the writer that her summer garden was an annual pleasure she never could miss. "To see the things growing just for me," said she, "makes me feel like saying Thank you to every stalk of corn and every turnip or other green thing that grows under my husbandry." The farmer is the real aristocrat. No labor boss can bother him, no tyrannical employer can make him afraid. He is an independent proprietor and gets doubek pay for his work: first, he gets cash for the necessaries of life which he produces for other people, and, second, a fund of health and vital resistance and robustness that are the natural result of his natural out-of-door vacation.

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Q. Are chicken and fish harmful and, if so, state the reason?

A. Neither fish nor chicken will do you any harm, that is, they won't bite you if you don't go too near to them and if you don't bite them they certainly could not possibly hurt you. Of course, lions, wolves and things of that sort are really dangerous and harmful. There is no doubt about that but chicken and fish are really perfectly innocent creatures. If we do not molest them they will do us no harm. As a matter of fact, the ideas that some people have that fish and fowl are not exactly meat, that they are to be accepted, when we say that we renounce meat, of course, you do not mean fish or fowl, do you? People have the idea that red meat is particularly harmful but it is just the other way. If you are going to eat meat at all, there is nothing more wholesome than beef and the chicken is a scavenger. Did you ever follow the chicken around when it was picking up its breakfast to see where it got it? The chicken is one of the most thoroughly confirmed scavengers I know of. Did you ever pass by a chicken yard and see a dead calf hanging up in a corner there somewhere and a chicken was jumping up and picking at it? The farmer puts his dead animals into the chicken yard and he says it makes the chickens lay eggs faster. The last time I took dinner at the Belmont in New York I noticed one of the items on the bill of fare was milk-fed chickens. I remember a lady here some years ago who called for sunflower eggs. She said, "I cannot bear the taste of ordinary eggs but there is an old Scotchman near Saginaw where I live who raises sunflowers and he feeds the sunflower seeds to the chickens and the eggs are as sweet and delicious and have the flavor of the sunflower seeds so there is a difference. I would just as soon eat a cat as eat a fish or a chicken. Why not eat a nice kitten now? A bread and milk-fed kitten is an innocent thing compared with a fish. What do fish live on? Fish eat fish. The great fish eatsthe smaller one and it eats a smaller one and it eats a still smaller fish and the smallest fish eats

a minnow. One fish eats another and that is why fish taste so much like fish. It is double distilled extract of fish. It is perfectly well known that the flesh of fish decomposes very readily. You could not hang fish in a butchershop the way you do quarters of beef, you know. They would be so far advanced in decay that nobody could stomach them. However, I believe that is what you do to Finnan Haddie, at least they smell that way. Smoked fish, halibut, salt mackerel and codfish are swarming with germs. You would be amazed if you could see the report of the examination of this kind of fish. Some years ago one of my colleagues spent some time with Prof. Simon, a great expert in Baltimore, and he said to me when he came back, "Prof. Simon told me that codfish and things of that sort were so swarming with germs thathe did not dare tell anybody anything about it because it would spil the whole fish business if he did. Of course, I was not embarrassed about publishing the fact on that subject so we made an investigation and found sure enough putrefaction germs are swarming in these preparations of fish in almost countless numbers. They are reckoned by billions in every mouthful you take.

Q. Is it unwise to go swimming when you have a had cold?

A. It is a good way to get rid of a cold. Swim two or three times a day.

Q. Should a child's septum,if defected,be operated upon before it is full grown?

A. Oh, yes. It won't do any harm to have the child attended to but it is not necessary for the septum to be removed. Perhaps it can be straightened without removal of the septum.

Q. What is the cause of the senation of dulness in a warm room ?

A. That is known as paresthesia. Persons whose nerves are sensitive are likely to suffer from these paresthesias more or less.

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Suppose, for instance, you would were here somebody filing a saw. It would make everybody shiver. It puts the nerves on edge we say. When a person is suffering from neurasthenia so that his nerves are on edge all the while various sorts of external impressions will manifest themselves in that way. They may have a numb or a crawling sensation or some other sorts of sensation. These sensations disappear very quickly when the nerve tone is restored.

Q. What is the cause of retarded digestion?

A. There are two elements of digestion to be considered. One is the secretion of digestive juices and the other is the muscular action of the stomach upon the food in moving it around. The cause of slow digestion, that is, as regards the chemical action or transformation of the foodstuffs into a liquid state, that can be absorbed, the actual digestion, change of the foodstuffs is due to the chemical action of the gastric juice and the reason this is sometimes slowed is because the stomach does not make a sufficient amount of gastric juice. One reason is perhaps the food is not chewed sufficiently. The moment food is taken into the mouth the stomach begins to get ready for the food. The longer food is chewed, the more gastric juice there will be already in the stomach to receive the food when it comes and carry on the work of digestion so the very best thing to be done for a person who has slow digestion is for him to chew the food very thoroughly. There is another kind of slow digestion, that is, when the stomach retains the food too long. The stomach ought to empty itself in about four hours and a half. A lady was in to see me a short time ago whose food remains in her stomach nine hours, twice as long as it should. Sometimes we find a case in which food remains in the stomach 24, 48 or 75 hours. That means obstruction at the outlet of the stomach, the pylorus, and such cases usually require operation. If the delay is only three or four hours, it does not usually mean operation but perhaps then there is an incompetent ileocecal valve and a

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return of material from the colon into the small intestine and such delay there that the stomach suffers reflexly. This particular case must be studied carefully. An X-ray examination should be made in every case of this sort.

Q. Is the daily use of onions injurious?

A. If the onions are well cooked and denatured, at least deodorized, then no harm is done. They can be used quite freely.

Q. How may the time required for food to pass through the body be recorded other than by taking a barium meal?

A. By taking a little charcoal or carmin and marking the bolus in that way.

Q. How can a traveling man live biologically when he is continually on the run?

A. I have traveled considerably all about Europe and different parts of Africa and Asia and never found the least difficulty by simply taking a little forethought. It is necessary for one to take thought for the morrow, however, when he is going to travel about the world and I always take care to have in my bag something that will constitute a meal or provision enough for a day or two, if necessary, and to fall back upon in case I could not find proper food. I always have a little box of dried figs and a little bag of nuts, hazel nuts, walnuts and almonds, then some fruit. You can almost always buy fruit somewhere and a little dried fruit with a handful of nuts furnishes a complete meal. If one likes to add some native bread such as you can find everywhere you can do so. The further you go East the better bread you can get. I consider myself very fortunate when I get into the land of pumpernickel. It is really almost as good as bran bread at home but if you were traveling in Sweden you can always get the beautiful Swedish bread made from the whole grain and the native bread of Egypt is also very wholesome bread. With bread, fruit, nuts, figs and dates, you can make a very substantial meal. In traveling in the

Mediterranean some years ago I noticed that those sturdy Greek sailors who are perhaps as hardy men as live upon theface of the earth would sit down in the steerage and make an entire meal of the very simplest food, perhaps a few chestnuts and some black bread and a handful of ripe olives. That would make really a very delicious,wholesome,satisfying and complete bill of fare.

Q. What is colitis?

A. It is infection of the colon. Various kinds of germs get into the colon and become attached to the wall and adhere there and produce a condition very similar to a catarrhal condition ofthe nose. This may be located in the lower part of the colon or may extend to the entire colon. It is one of the most common of all diseases of serious character. Persons who suffer from chronic constipation are very certain to have this disease in some degree. When the disease becomes very intense it produces a very serious change in the condition of the colon. The colitis may be in any one of several different parts of the colon. When the descending colon is infected in this way it contracts and is reduced greatly in size and the result is obstruction. The intestinal contents cannot be forced through this contracted colon. When the colon is contracted in this way there is a reverse action set up so that material that comes down is crowded back. That is the way the ileocecal valve comes to be destroyed because it is kept stretched wide open and cannot any longer act as a check valve but this disease is curable. It can be quite easily cured. I was much interested in a case recounted to me by one of the leading surgeons of New York, a patient who had a terrible condition of the colon, dreadful intoxication, so bad that the doctor finally made an opening into the bowel so that the colon could be washed out. The patient did not get along at all, was reduced to a skeleton and weighing only fifty-seven and a half pounds and it looked as though he would die. Somebody suggested to inject the colon with buttermilk. The

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patient began to improve at once and gained twenty-two pounds in two weeks. That is a method of treatment I instituted here some fifteen years ago. As soon as Professor Metchinkoff made his announcement of the wonderful discoveries in relation to colon germs I made up my mind that if buttermilk was good to take by mouth it was would be better still to introduce it through the colon because the buttermilk was not supposed to do anything in the stomach. All the service rendered by it was supposed to be rendered in the colon. I said to myself it is very unphilosophical to send that buttermilk all the way down the thirty feet of the stomach and small intestine or twenty-five feet in order to reach the colon when we may reach it by a shorter route so we began to use buttermilk enemas with wonderful success in curing colitis. We soon found it was better to use whey from which the casein or curd has been removed. Every case of colitis treated here at the present time gets well and in every casethe colon is flushed once a day or more with sour whey which has been prepared from buttermilk or sour milk. The whey contains the bacillus Bulgaricus which is better than the ordinary sour milk germ. Some milk sugar or fruit sugar is added to feed the germ and a little starch which also helps to promite the health of these friendly germs . I was very glad to see this method prove so successful in a New York hospital. I saw the cases myself who had been treated by this method and the patients' appearance was very good after the treatment and it was very evident that the treatment had done them good.

Q. What can we use in place of tissane when we go home?

A. Tissane is a preparation of whey which contains the bacillus Bulgaricus, glucobacter and another germ known as the bacillus bifidus. These are the three most important friendly germs and the most effective. You can make something equally as effective at home by this method. Take a couple of ounces of malt honey and two quarts of water. If you cannot get malt honey use milk sugar which answers the same purpose, an ounce of milk sugar and a

quart of water. Add a cup of milk to that and some Yogurt Tablets. Drop in half a dozen Yogurt Tablets, put it away in a warm placem, and let it get sour. After it is properly soured it is ready to use. If you cannot get Yogurt Tablets to make this solution, make the solution of an ounce of milk sugar and a quart of water and put ~~it~~ into it a teacup full of ordinary sour milk. That will answer the purpose very well though not quite so effective as the other.

Q. What is meant by theexpression high blood pressure ?

A. It is a blood pressure above 140 points.

Q. Can stone in the kidney be cured without operation?

A. The majority of kidney stones are disposed of without any operation. If it is a small stone it will find its way through the ureter into the bladder and disappear. Bladder stones, however, are generally kidney stones that have enlarged in the bladder and are not discharged but become larger and larger and larger. Sometimes the kidney stone will stick fast in the ureter. It certainly is not necessary in every case to operate for kidney stone. However, if a kidney stone is too large to enter the ureter and find its way out in that way, it must be removed. Fortunately the operation is not a dangerous operation. I have removed in some cases a whole handful of kidney stones. The important thing after an operation of this sort is to regulate the diet and mode of life in such a way that no more kidney stones will form because there might be another crop.

Q. Why is one more rested by fifteen minutes sleep in a comfortsble chair than from longer sleep on the bed?

A. That is contrary to general experience, I think. The majority of people sleep better in bed. If one finds he does not sleep well in bed but sleeps more comfortably in the chair, the probability is the person has too much blood in his brain and if his head is elevated he sleeps better than he will if he sleeps on a level and I would recommend

such a person to raise the head of his bed six inches or a foot and sleep with the head of the bed raised and that will give you the effect of the comfort chair, the easy chair, with the advantage of being in bed too.

Q. Is the use of chewing gum harmful or beneficial?

A. If I say itis harmful all the manufacturers of chewing gum
16, 034 will be after me and I will be subject to persecution. If I say it is beneficial then probably they would all come down upon me and want to sell me a lot of chewing gum or would publish my testimonial to the world so I am in rather an embarrassing position. Chewing gum is a thing which one may safely ignore. It is not a serious question to chew or not to chew chewing gum. It is really a question one may ignore. I would not dare say that to chew a little chewing gum would do anybody any great harm although the persistent habit of chewing gum is harmful because it wastes the saliva and when you come to sit down and chew your dinner the saliva is worthless. Sometime ago I had a man chew gum in our laboratory and examined his saliva to see what its value was and I found that after he had chewed gum for three hours the saliva was absolutely valueless, was not worth any more as a digestive agent than water. The salivary glands were worn out. He could not make saliva that was of any value for digestive purposes. I must admit, however, that if a person has neglected to chew his dinner, he might possibly get some benefit if he should retire into some secluded place and chew gum for half an hour taking care not to waste any saliva.

Q. Is a small amount of saccharin harmful?

A. A small amount would not do the serious harm that a large amount would but it is perfectly well known that if one uses saccharin, a very small amount of saccharin, for instance as much as five grains a day, it would produce poisonous effects. No one can prove that a

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half grain a day does any harm. In the same way nobody could prove that one glass of beer or wine a day does any harm or that half a cigar a day does any harm because the effect would be spread out in such a way that it would be impossible to make the evidence sufficient, mathematically, to be convincing. Nevertheless, if five grains of saccharin will produce poisonous effects, one must be persuaded that even half a grain has no benefit in it and might be, to some degree, injurious. The best way is to abstain altogether from these things we know to be harmful. I have never recommended saccharin and do not think I shall.

Q. When does a woman need most to prolong youth and happiness?

A. I have already had an inkling from the person who asked this question as to what my answer ought to be and that is a good husband but now I have not said that that is my answer. I said that is an inkling that that is the answer expected of me. I think the most important thing for a woman, also for a man, to prolong youth and happiness is good health. Really good health is the most important thing of all and good health depends upon biologic living. If a woman has good health, lives biologically, I have faith to believe that she would find a mate if she needed one and would find the right sort of mate too. I had a letter from a gentleman not long ago who said he was a vegetarian and he said there were a good many vegetarian ladies here and he wanted me to seek a partner for him in his business. I advertised some for him in a quiet way but I do not know that he has profited at all by my advertising. I had to tell him I was not an matrimonial bureau and I couldnot guarantee to render him any assistance. A short time ago I received a letter from a young lady and she wrote a notice describing her personal appearance, her habits, etc., and wished me to post it up in the lobby. I did not do that because I was afraid her proposition might be taken up too quickly so I thought it best to protect the young lady by advising her that she better come on herself and attend personally to the matter. The one thing that will

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solve all our life problems more than any other thing is biologic living. That is the text I stick to and I am sure anyone who will try the experiement of living biologically will find a clearness of head, a fullness of joy in your heart and a fountain of energy continually welling up within you like an everlasting spring that you will find yourself equal to all sorts of emergencies and solving all the problems of life.

I thank you for your attention.

END.

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HOW THE BODY FIGHTS DISEASE

A Stereopticon Lecture at the Sanitarium Parlor, Battle Creek, Michigan, Thursday, May 4, 1916, at 8:00 P. M.

A great orator said some years ago that if he had been present when the world was made he would have made a suggestion to the Almighty. He thought he had an idea that was really worth while. He said, "I would have suggested that health should be made contagious instead of disease." He thought that was pretty bright but, as a matter of fact, he did not know that health is contagious and that it is more contagious than disease. Perhaps you think that is rather a wild statement but let us think about it for a moment. Suppose you want to catch smallpox. You must hunt and hunt and hunt to find a man who has smallpox and then rub yourself against him in some way in order to get it. Suppose you want to get a splendid case of indigestion. You have to work at it for years and years and years andyears. You have to labor hard at Christmas dinners, at Thanksgiving gormandizing and the probability is it would take you twenty years to get a real bad case of dyspepsia, abusing your stomach every single day all that time, and in addition eat betweem meals. Health is so easy to get, so abundant all about us everywhere. We breathe it in at every breath. We catch it from the air, we capture it in our throat. Every morsel of food we swallow has health and life in it. It is not a hard thing to find health. It is a rather difficult thing to get disease. If we have disease at all we have to cultivate it. Perhaps we do it ignorantly but we get health spontaneously without bothering about it, without

taking any thought for it at all. We get it by heredity. We do not inherit disease very often. We start out in the world with a legacy of splendid health, vigor, and vitality, a great margin of health, that it takes us long years to consume. I met a man the other day who had been smoking tobacco,he said, ever since he was ten years old and drinking whiskey ever since he was sixteen and he was in pretty good health yet although he was eighty-four years old. His blood pressure was normal, his arteries were soft. He could run up stairs without getting out of breath and he was really proud of his splendid health though he had been abusing himself for eighty-four years, he was still well. Think of what an enormous margin of vitality and surplus of health this man was endowed with at his birth. Of course, we see other people who have been smoking six months and are already on the way to the lunatic asylum. The bad effect of smoking is so apparent to the person who has only a very small fund of vital reserve we find that tobacco very soon uses it up so with other kinds of bad habits but the average man has such a fund of vitality and vigor and of health, of constitutional life, that it takes him years and years and years to consume it. That is why it is that a man says sometimes, "Now I smoke of course but I know smoking does not agree with some people and likely the time will come when I find that it hurts me. Then I shall quit it." That man does not realize that when he gets to the point where he can see that tobacco hurts him he is just like the man who had a large capital in the bank but he has got to the point where he cannot draw a five dollar check on that bank. His credit is not good for five dollars. By extravagant habits and wastefulness he has thrown away his fortune till he has got to the point where he cannot draw five dollars from the bank. You would say that man is bankrupt, busted. That is exactly his situation and that is the exact situation of the man who smokes until he finds that smoking hurts him. He is a busted corporation,if you please. He cannot expect ever to be well, to be vigorous, to be strong again. We had with us a day or two ago one of the greatest surgeons in the United States, in fact, I think one of the greatest

in the world, Dr. Albee of New York. He gave a lecture in the gymnasium evening before last. Some of you were present. He illustrated some marvelous advances that have been made in recent times in bone surgery. One of the things he showed was the interesting fact that you can take a little piece of bone out of one part of the body or a large piece of a bone, half of a leg bone, if you please, and put into some other part of the body and let it grow there. For instance, a person lost a piece of a rib. You can just carve out a rib out of his shin bone and put it in there and it will serve perfectly well. The wonderful thing is that rib will pretty soon shape itself to fit the situation so that you cannot tell it from other ribs. It is nothing but a square piece of bone when you put it in there but after a year or two it will have the right proportion and will look just like another rib. He showed a finger bone, for instance, where a boy lacked a bone in one of his fingers and the consequence was his fingers were all the time doubling up in his hand. When he would try to contract the finger it would pull right up into the hollow of his hand. He grafted carved a bone out of that boy's shin, put it in there, fitted it in, a square piece of bone, but in the course of a year an X-ray taken of that bone showed that it could not be told from a perfectly normal bone. It was all without a doubt fitted in exactly and made like the other bone. The wonderful thing is that that bone will take root and grow wherever it is layed laid in. Following Dr. Albee's instruction a couple of years ago, I happened to have a case of a young man who had cancer of the thigh. I had to cut away the whole upper two-thirds of the thigh bone. After cutting off this bone we simply robbed him of the small bone of the leg of the same size as the fibula of the leg. The periosteum of the bone was peeled off and the bone was lifted out and the upper end was attached to the hip bone here and the other end to the fragment of the thigh bone. The last time I saw that young man he was walking along Manchester Street several blocks away from the Sanitarium. I am sure no one would

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have suspected in examining his two legs that he had ever had any trouble that required an operation of that sort. That little bone put in there was as large as my little finger but in time Nature makes that little bone grow and grow and grow until it gets to be just the right size for that part of the body. In other words, this bone will in time become the shape and size of the femur on the other side. I mention this so you will see what wonderful vitality is stored up within the body and what marvelous resources the body has. A German surgeon sometime ago cut off half the liver of a rabbit. Three months afterwards he opened the body of the rabbit and examined the liver and found it just as big as it ever had been. The rabbit had a liver just as big as before. Then he cut off the other half of the rabbit's liver and at the end of another three months made another examination and the rabbit still had a liver just as large as the original liver. Nature had grown on the other half so that rabbit had a brand new liver, you see. That is what some of you folks are here for and are going to get. The liver has a marvelous power of reconstructing itself and everyone of the vital organs of the body has this power of reconstruction. Every little cell of our bodies has planted in it a reserve vitality so that under proper conditions it can grow and multiply cells. Suppose I should cut my hand, make a gash in the back of it. First of all a blood clot will form that will fill that gash. If you could wash all the red cells away and examine it under a microscope you would find it was made up of a great mass of an intricate network of fibre. That is exactly what there is there. That little gap between the edges of the wound is all filled in with little fibres running everywhere and if you could watch that under proper conditions, if it were possible to do it, you would see slowly climbing out along those little threads from either side, creeping along those little threads, little cells, white blood cells, creeping out there for the purpose of building new tissues. The point I want to make is that we have in our bodies a great fund of vitality and vigor and if we conserve it, take care of it, it will carry us through to old age and then we

won't be poor, miserable, decrepit, burdensome people. I was reading the other day how a certain class of people, when their relatives got really old how they dispose of them because they are a trouble and a nuisance and sometimes they appreciate the fact to such a degree that they actually ask to be hit in the head with a club and perhaps some of you do not know that in Sweden they have in certain museums collections of clubsthat away back in the ages were kept in the churches and one of these clubs was called the sacred maul and it was kept behind the doors in a church and it was taken out on such occasions. There was a family who had some infirm old person who wanted to be disposed of with the sanction ofthe clergy. The sacred maul was then carried from the church with the proper ceremony to the house and the family was relieved of their burden. That is the old way. Fortunately our mores have changed so that we do not have this custom at the present time. I think sometimes even these old people are really persecuted to death. When you get to be old if you have preserved your vitality, the natural fund of vigor that Nature vested upon you, that came down to you as a legacy from your parents that was carefully preserved for you in a most marvelous way, if you will take care of it instead of wrecklessly squandering it and throwing it away, it will be invaluable to you in your old age. That is the time that really tells. It is at the end of the race where the endurance and stamina of the runner is displayed. It is at the end of the race where the real shift comes so you smoking people and tea and coffee drinking people and you beefsteak eaters,.gormandizers, you folks may go along during middle life enjoying yourself pretty well and say in your hearts, "Why I can eat anything that I please. I am all right all the time. Nothing hurts me" but by and by when you get to be fifty or sixty years of age then all these debts of Nature that you have been incurring, these mortgages you have been placing upon yourself will all come foreclosing one after another. The first thing you know you will get rheumatism in your left knee and you have got to limp when you walk and you get rheumatism in your right knee or your left shoulder or your

right shoulder and the first thing you know you cannot dress yourself without assistance. You sit on a chair and you cannot get up without pain. You find all sorts of miseries coming down upon you one after another because of your middle age digression. That is why it is worth while to take some lessons from Nature, why it is worth while to learn our obligations to Nature, to learn that there is a great biologic law that governs us. There are great biologic principles that contrd our lives and are just as inevitable, just as inescapable as the law of gravitation,as the great cosmic forces that rule theuniverse. We cannot get away from them. We may think that we are escaping but all the time there is wrath being laid up for us and it will come down upon us in due time. It will certainly come. I remember some years ago we had a whole lot of dyspeptics here in the house. We always do for that matter. A man with a very rare variety of dyspepsia came in. He began to talk about it, to tell other folks about it and the first thing we knew that kind of dyppepsia was spreading and other people were getting it. It wasn't very long before we had a dozen of the same sort. On making a careful examination people had discovered that they had neglected to mention that the stomach had a way of turning topsy-turvy once in a while in the middle of the night at certain periods. I thought I would have to say something about dyspepsia. I gave a talk about having bad symptoms

16053 We were talking about symptoms. How absurd it was. I said, "Suppose you met a man who had just got out of State's prison and he went around calling attention to his stripes, boasting of his striped clothes, and his short cut hair. You would say he was a fool because he is simply advertising to everybody that he has been a criminal. That is ju t exactly what you dyspeptics are doing. You go around here showing up your symptoms. You are simply advertising how you have abused yourself and mistreated your stomach." I was talking along after that fashion, and a young fellow, a tall, lean, lank fellow, got up in the far corner of the room, just a mere skeleton, one of the leanest and most melancholy looking young fellows I ever saw in my life, and said, "You are wrong,Sir, your are wrong,Sir. You are too hard on us poor fellows." He said, "Why, I have got an awful dyspepsia and I have taken the best care I know of my stomach all of my life. I inherited my dyspepeia. You are blaming me," and then he sat down. I confess I was a little bit embarrassed but instantly the thought came to me, "You say you inherited it?" "yes". "Well, it is in your family and you ought to be ashamed of it just the same." For the matter of fact, it is because somebody has violated a natural law. Natural law is devine law. You never stopped to think of that, dit you? Some of us were brought up wrong theologically. We were brought up to believe that nature was total depravity. We were brought up to believe in natural depravity that everything that is natural is depraved and wicked and possessed of the devil and all that sort of thing. That is a mistake. At least, I think it is all a mistake, because when we look out upon the face of nature we see the work of the devine artist. We see what the Creator has done, the great devine artist of all life. We see the apparitions of this great force allabout us all the time and in our own bodies. We see evidence of this same devine life and creative power that works within us all the time every moment. That is why it is possible for us to live. One of the great philosophers at the begin-

ning of our Christian Era knew that. He said, "In homes we live and move and have our being". It was Paul who said that. This great, wise, devine Creator is the author of these natural laws and the author of ournatural bodies. He is the Creator of our bodies and the Creator of these laws. The laws are great fundamental principles that naturally depend upon natural principles and we naturally depend upon the nature of things first. We must obey these laws and if we do nature is kind to us. I do not like to use the word "nature". "Nature"is simply a substitutefor the word "God". It is simply God at work, a panorama of the devine power in operation. When we talk about nature as a force, we mean nothing less than the devine Creator Himself, so when we talk about what nature does to us, we mean what God does to us. When we are talking about natural healing, we are talking about devine healing, the only sort of healing there is as a matter of fact is simply devine healing. Nature is kind, God is all the time doing everything he can for us beneficent. Prof. Fisk, Professor of history for so many years at Harvard, says that when he was a boy he had the impression from what he was taught that when God made the world, he turned it loose and hadn't paid any attention to it since. That is an impossibility. God made man and He had to stay right by him and take care of him and continue to work in him to keep him alive. This great power that is working in us is always working for our good, always working beneficently. There are so many thousands of illustrations of that. In the combat of the body with disease we can illustrate this fact in a forcible way. How this devine energy is working in the body and continually preserving our lives and planning for us and keeping us alive and in health. When we take food into the body we take along with the food countless numbers of germs. They are in the air. We swallow them along with our food. We take the greatest pains possible to keep our food free from germs but inspite of it they get along down with the food and get into the colon and more or less putrefaction and decay takes place. Nature preserves us from the results of the action of these germs by making the mucous membrane which

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lines the colon almost impervious to those poisons produced by germs. So long as the mucous membrane is perfectly healthy, the poisons cannot easily get through but if there is one little raw service anywhere, then the poisons and the germs get in easily. We had a good illustration of that some little time ago. A patient came here who had been discharging quantities of colon germs from the kidneys and suffering horribly from kidney and bladder trouble because of germs discharged from the kidneys. On examination we found in the colon there was a little ulcer. We naturally supposed that little ulcer was the place where the germs got in. We cured up the little ulcer and the germs all disappeared. If a person has colitis the whole colon will be involved. Generally the colitis confines itself to the last half of the colon, sometimes even to a smaller portion. When colitis is present, that opens a great door through which the poisons and germs can enter. That is the reason why colitis is such a very disturbing disorder. When people have colitis, they have almost everything else. A person who has colitis will have headaches,migraine, sick headaches, insomnia, neurasthenia, back-ache and all sorts of disorders. These all brew out of colitis. It was formerly supposed that this colitis was a nervous disorder because it was found when people had colitis they were generally nervous. It was actually thought that colitis was a nervous disease. At the present time, we absolutely know better, we know that colitis is due to infection. Casts that are thrown off and the large quantity of mucous discharged from the bowel are nature's effort to substitute something in place of the damaged membrane to cover the membrane over with something through which the germs and the poisons cannot so easily pass, so as to protect the body. There is no harm in the mucous. It is the difficulty that is behind. The raw infected unprotected service which may extend throughout the entire colon. When these germs get through as they sometimes do and the poisons get through, they are absorbed through the large blood vessels. The blood vessels of the abdomen are known as the portal circulation or splanchnic vessels. The germs are

taken into these large vessels and carried to the liver. Some of these germs get on the outside of the intestine and get upon the se vice of the intestine and there there is a wonderful protection in the omentum or what is commonly called the "caul", a sort of apron that hangs down from the transverse colon in front of the intestine. The transverse colon undergoes various snake-like movements and in that way this apron is pulled all around the abdominal cavity, and as it travels about the abdominal cavity it picks up the germs that may be there and destroys them. It is the white cells of the blood that are fighting for our lives and the blood pours them out wherever they are needed so ~~that~~ they eat up the germs. The abdominal cavity is a wonderfully well-protected portion of the body. Wounds heal in this region of the body better and quicker than in almost any other part of the body, much quicker than wounds upon the service. A story was told not long ago of a soldier who had had a great gash in the abdomen and the intestines had fallen out and he gathered them up in his hands and traveled half a mile before he got to a hospital. He got himself to the hospital and the intestines had come in contact with dirt where he had fallen several times and they got terribly soiled. He got to the hospital and the surgeon washed off the intestines carefully, put them back and that soldier today is alive and well. Just think of what nature can do because down here in the abdomen was this wonderful omentum that is fighting for our lives all the time looking for germs. Some of them by and by get through and get into the liver. All the blood that comes to the intestines is carried to the liver before it is allowed to mix again with the general blood of the body. I had today to take a gall-bladder out that had over four hundred gallstones in it and was six times as big as it ought to be. The walls of the gall-bladder were as thick as my little finger. One of the ducts had got closed up and the poor woman was suffering all sorts of mischief continuously.

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The elephant hasn't any gall-bladder and the donkey hasn't any. The rat has a gall-bladder but the mouse hasn't any. Some animals have it and others do not have it. The liver captures these poisons that are brought in through the portal vein and it captures the germs. It sends the germs out through the gall-bladder to the bowel. If enough germs get in at one time then they will make a gallstone. Gallstones always have germs in the middle of them. The gallstones are one of nature's devices for surrounding germs. The gallstones is a kind of rosin and will burn like rosin when dry. The liver has the function to take out poisons that get through from the intestine. After they get into the blood there is another provision made for them. There is a second line of defences, if you please, in the liver. There are millions and millions of little living cells ready to seize upon germs and carry them into the bile and send them out of the body. The poisons that are brought in are actually destroyed and the colon, for instance, may produce a substance known as indol which is closely allied to indigo. When the indol reaches the liver it is combined with acid generally called uric acid which is taken out of our food and utilized, combined with this indol to make indican of it and indican is a comparatively harmless substance. Indican has been disintoxicated. The one purpose of the liver is to disintoxicate poisons. If there isn't any sulphuric acid handy, then nature will use acetic acid, which will answer just as well. If there isn't any acetic acid, then nature will make some of it out of some other food stuffs. An acid known as glucoronic acid. Don't repeat that to any body. Any one of these three acids combined with the indol is non-poisonous. So you see the liver has a wonderfully important function to perform. Human beings do not have a very large liver. Our livers are the size of monkeys' livers. Monkeys are adapted to a diet which does not contain very much poisons. The higher apes are very closely allied to human beings, more nearly allied than almost any other creature found on the face of the earth. Most scientists believe that way back somewhere, the great, great, great, grandfather of the human race was also the grandfather of the orangoutang and the chimpanzee.

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At any rate we are alike and we are alike in having livers that are alike. Our stomachs and intestines and whole interior structure are alike. The dog has a liver four times as big as ours. You know the chicken also has an enormous liver compared with the size of its body. If a man had a liver as big comparitively as a chicken's liver, it would fill a waterpail. The chicken's liver is six or eight times as big as a man's liver in proportion to the size of its body. The turkey buzzard has an enormous liver. Why do suppose the dog has such a big liver? It is because of its diet. A dog lives on meat and when the meat gets into the colon and rots there, you know what a bad odor it makes. The stools of a puppy fed on bread and milk are not offensive, but the old dog that has been steeped in these poisons for twelve or fourteen years does not have a nice sweet breath like a little baby. When a puppy goes out of the room there isn't anything left behind but let an old dog fourteen years old walk through the house and everybody knows a dog has been around by the smell left behind. That dog smell, if you please, is due to these poisons absorbed from the colon until the body of the dog is completely saturated with these horrible odors that are excluded with every breath. There is a spreading of the dog aroma everywhere the dog goes. You know there are some people in the same situation for the same reason actually. They have a breath like the breath of an old dog, sometimes worse than that. I met a man the other day who had a breath that smelled like a dead rat . He didN't know he had a bad breath at all. He said his wife had never mentioned it to him and that was because she was a remarkably polite and patient woman. It is the duty of the liver to take these poisons out and keep the breath sweet and clear but if the colon is loaded up with these poisons so that they are more than it is possible for the liver to do, our small livers that are only capable of dealing with very small amount of these toxins, this makes it necessary for us to adopt and to pursue a diet that is plain and does not produce the enormous quantities of putrefaction. Sometime ago, we had a visit from S. S. McClure the Editor of the New York Evening Mail at the present time,* and the founder of McClure's Magazine.

At the present time Mr. McClure is in Germany at the front as a war correspondent of his own journal. He first dropped in here about eight years ago and he was one of the worst neurasthenics I ever saw in my life. Some of the folks he worked with in his office on his magazine told me he was mighty hard to get along with and perhaps some of you know something about how that is yourselves from experience. Mr. McClure had an awfully bad breath and he had a terrible tongue. We had some little chats on this subject just as I am talking to you now. He began to think about it. He went away and in two or three weeks was back here. He said, "I have come to stay a couple of weeks"and he got thoroughly converted. He has not eaten a pound of beefsteak since. He is perfectly safe over there in Germany, I think, and cannot get any beefsteak over there just now. The last time he spoke here he said, "People sometimes undertake to guy me at hotels when I am sitting at the table and say, 'Well, Mr. McClure, don't you eat meat?'" Well, I just simply say, "I don't eat anything that rots. I am trying to keep clean." Why, said Mr. McClure after making that remark, "I would just as soon go right out here in the street in front of this building, get down on all fours and lick up the dust out of the street as to eat a piece of beefsteak." As a matter of scientific fact, if Mr. McClure should happen to do this he would not get anything like so many germs in his mouth as he would if he ate beefsteak. That is the real truth about it andthey would not be so bad germs either. It is good to take care of our livers then by avoiding things that rot and by keeping ourselves just as clean inside as we try to keep ourselves outside. Why Not? Did you ever stop to think about that? Why shouldn't we be just as anxious to be clean inside as outside? Why be satisfied with a clean exterior when the interior is unspeakably unclean? Some of the poisons slip by the liver and get into the general circulation. Then they do all kinds of havoc. Some of these poisons get into the brain and they make you feel so savage that you will break with your best friend and be everlastingly pro-

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voked at yourself to think that you have been so mean afterwards. It may make you feel so contemptible that you will do some outrageous thing involuntarily and afterwards feel horribly distressed that you have done such a contemptible thing. I told a lady sometime ago, "Madam, I see that you have autointoxication." "You are entirely mistaken, Sir. You are entirely mistaken, Sir", she said. "I have not had a drink since night before last. I do admit that I take a toddy to put me to sleep usually but I was here last night and could not get any." I said to her, "Well, the intoxication I was talking about is a good deal worse than that." Autointoxication is ten times worse than whiskey intoxication. These poisons that contaminate the brain cells, excite and irritate them, drive people to the lunatic asylums. Out of the three hundred thousand lunatics in the United States at the present time, I haven't any doubt at all that ten per cent. at least are lunatics simply because of these colon poisons that have driven mad. I have many times seen insane persons get entirely well in short order as soon as we got the colon clean, got the blood clean and the brain bathed with healthy blood. I remember a merchant from a large city who was brought here with four men to hold him. A great gigantic negro came along to stay with him. He hadn't had any sleep for six weeks. His tongue looked like a livery stable. It was horrible. The odor of his breath and body particularly was simply frightful. By simply getting him clean inside in three days he began to sleep and at the end of a week he was sleeping all right. In three weeks he went back to his business and conducted it for twenty years after that doing a large and very complicated business and doing his duty well. That man was simply poisoned and that is true of at least ten per cent. of all the lunatics in the country. There are a great many people outside of the insane asylums that really ought to be there. There are a whole lot of lunatics loose and doing all sorts of cranky and outrageous things and simply because they are poisoned. Sometimes we hear about a ~~splendid~~ Sunday school superintendent who

is cashier of a bank and he absconded and carried off a lot of the bank's money. He may not be so much the blame for it after all. I remember reading in a newspaper sometime ago an article about battling Nelson. He had been defeated for the first time. That is the first bad defeat he got.

In this fistic encounter, he was defeated and he explained to a reporter who gave an account of it to the paper heading the article, "Twas the Beefsteak that did it." Battling Nelson ate an extra beefsteak at the last meal he took before he went to the battle and he said, "That beefsteak made me tired." He said, "I swiped it when my trainer was not looking and it made me tired. It was the beefsteak that did it." I dare say that was very likely the case with the cashier of the bank who ran away with the bank's money. It may have been beefsteak that did it. My friends we haven't any appreciation at all of how character is influenced by these conditions of the body. When these horrible poisons that are like the virus of rattlesnakes in their virulence are flowing along in the blood, coming in contact with our delicate brain cells and nerve cells and the wonderful cells that do our thinking and worrying for us, it isn't any wonder we find so many things going wrong in society. The wonder is that people behave so well as they do under the circumstances. When these poisons get in and get to circulating around through the blood Nature does not let the thing go but tries to do something still to fight off these poisons and this is one of the wonderful defences set up by the thyroid gland which is a poison-destroying gland. We used to think the thyroid gland was made to make business for surgeons. Some people in Switzerland had thyroid glands so enormously big they were a terrible burden to them. I have seen people going about there with goitres so big they hung clear down to their waists and actually they had slings around their necks to hold up the goitre. You would sometimes see people standing on the streets comparing their goitres and disputing as to who had the biggest one. Dr. Kochker of Berne, Switzerland, undertook to remove some of these

goitres and he found it impossible to do it without the patient dying but sometimes the patient would get very sick afterwards, decline in health, become feebleminded and some of them would die in convulsions so experiments were made upon animals. A man removed a thyroid gland of a number of dogs. They all died in spasms within a few weeks. Another investigator removed the thyroid glands from rabbits and they all lived so the experiment on dogs was repeated. The dogs had their thyroid glands removed. Then they were fed on bread and milk instead of beefsteak and they all lived and got along as well as the rabbits did. It was found to be a difference in diet, so the investigator announced to the world that it had been discovered what the thyroid gland was for. It had for its function to destroy the poisons produced in the body by meat. That was his statement. The thyroid gland destroys very largely the poisons that are gotten from meat eating but it also destroys other poisons. The thyroid gland produces a substance, thyroidin, which destroys poisons. Women have more thyroid than men have. That is the reason why they have cleaner blood. Maybe that is the reason why we admit that women are better than men and are cleaner and are sweeter and purer because they have better thyroid glands. They ought to be better too because there is a responsibility on their shoulders too. They ought to be good because they have the aid of this splendid poison-destroying gland. The thyroidin circulating in the blood comes in contact with a certain little glands connected with the kidneys, the suprarenal glands, stimulates them to make adrenalin which destroys poisons. The pancreas seems to be very closely associated with these organs which produce internal secretions which are so wonderfully necessary for the protection of the body. Our friend, the oyster, has a liver too, by the way. The liver and kidneys are associated together in one organ. It he has all these other organs, stomach, kidneys, big intestines and little intestines, and it is teeming with germs. If you ever saw a drop of oyster juice you would see it has a big liver. The liver

of the oyster is fifty or sixty times as big in proportion as in man because the oyster has such a horrible diet ofslime and ooze in the ocean bottom. That big brown end of the oyster is its liver and kidneys, the part that destroys the poisons. These scavengers all have big livers. These poisons are taken into the body in quantities so large that various organs cannot destroy them so the thyroid gland and the suprarenal capsules, the liver and the other poison-destroying glands, cannot destroy all the poisons and they gradually accumulate in the body and by and by begin to deposit themselves in the skin and you get brown spots on your hands and the skin gets sallow and the skin loses its transparency. A good complexion, a peach bloom complexion,for instances, is due to the fact that the skin is so transparent that the reddish coloring shows through the skin. That is the reason for the beautiful, clear, attractive complexion. When these poisons are destroyed in the skin you know the bowel discharges when very offensive are a dark brown color and that is produced by the germs growing there and that color is known as brenzkatechin and this is absorbed in such quantities that it is deposited in the skin and the skin gets a brownish color also. The body is saturated with these poisons and great brown circles form around the eyes so-called liver spots appear upon the skin. That is all due to these horrible poisons saturating the blood and the body and then the blood itself begins to suffer. The liver becomes diseased because it is continually saturated with poisons and the kidneys become diseased. Instead of a healthy kidney we get a shriveled up kidney called a gin kidney but it is more often produced by dyspepsia, by these poisons than by gin. The diseased kidneys are produced by poisons in the blood. The liver becomes diseased when washed continually by these poisons. The liver cells are sometimes replaced by fat. Then the liver is degenerated and is no longer active and by and by the poisons accumulate in the body to such a degree that death naturally occurs. When the poisons accumulate in the blood they do something of tremendous importance to the blood. There are several different kinds of white cells

found in the blood. Each one has its particular work to do. The large cells have for their business to hunt around in the blood for little particles of matter that need to be disposed of, the magrophages. They are scavengers, if you please, like the men who go along the streets and pick up dead cats and things of that sort and carry them off to a rendering establishment and the hair is used for plaster and the hides for leather and the bones go to the glue factories and the fat is used to make oleomargarin butter. It is the white cells that destroy germs. In every little drop of blood not bigger than the head of a pin there are seven thousand of those marvelous white cells. We have in the body not less than three thousand million million of these cells. When these cells get diseased they cannot perform their functions. Sometimes these cells, when they are assaulated by poisons, become unable to perform the functions that they ought to perform. For instance, they may creep up into the hair. Sometimes these white cells creep up into the hair and ~~kikk~~ steal away the coloring matter in the hair. Each hair is a hollow tube and they steal the coloring matter and carry it off so that is why the hair turns white but those same cells get into other parts. For instance, in some cases they get into the bones and gnaw away the bones and destroy them. That is why the bones of old people get brittle, because these germs have gotten in there and the tissues have been so long saturated with poisons that these cells have attacked the bones and are carrying them off. They also sometimes attack the little tubes in the kidneys. They also attack muscle tissue sometimes. When John L. Sullivan got his first defeat he fealt just as strong as he ever did. He was just as big as he ever was but he ~~didn't have~~ had been drinking whiskey and had damaged his musclesand he didn't know that these cells had eaten these muscles out so that he was a sort of whited sepulcher so he was easily defeated and was astonished to see how quickly he went down himself.

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The brain and nerve cells are also attacked by these cells when the body has been saturated with poisons for a long time. Many years ago in Mexico I was going out one night and I said to a gentleman, "Do you think it is safe?" "Oh, yes, they have city policemen at every corner." I said, "But I don't like the looks of those policemen. They look to me as though they were the most dangerous people around here." He said, "You know when Diaz could not control the brigands any other way he promized them all a good job if they would come to town and he would appoint them policemen and he showed them that they could make more money as policemen than they could as brigands. This situation is just the same as that which would have occurred if the brigands that were the policemen of Mexico City had returned to their brigandage and robbed the city. These blood cells under certain circumstances will actually turn upon the body cells and destroy them. That is what happens when fatty degeneration takes place, when the arteries become to harden prematurely, when one grow old prematurely, when one finds himself getting senile when he still ought to be young, full of life and vigor because his tissues have become so deteriorated that the policemen of the body have turned upon the body itself and have destroyed the body instead of fighting off its enemy. The heart suffers almost first of all because of this diseased blood coming in contact with the heart. All of it comes in contact with the heart. One of the first things that is noticed in the aorta is the deposit of lime. This can be seen with the X-ray. If everyone of you should have a careful thoroughgoing examination with the X-ray I dare say every person in this room would show a deposit of lime in the arch of the aorta. By and by the cells get so weak they rupture. The wall of a normal artery is able to resist fifty times the normal blood pressure but when poisons are circulating in the blood the walls become, after while, thickened, the delicate lining membrane becomes inflammed and the thickening extends to other coats of the artery and as the artery must

retain the same size because of the connective tissue that holds it to its original size, as this thickening occurs it is at the expense of the lumen or opening of the artery, you see, so you see this opening capacity is not one-fourth of what it originally was and because of that the heart has to work harder and contract harder in order to get the proper amount of blood through this small opening. This thickening is sometimes very irregular. The process goes on and by and by an artery closes up in the brain. Then a person loses his memory perhaps and cannot think what he wants to say and cannot remember the name of his friend. Perhaps one of the brittle arteries will burst and then it will paralyze a whole side of the body or a portion of the body or some other part of the body. The kidney also becomes crippled, disabled and inefficient because of these same changes. Formerly we were not able to discover these changes in the kidney but recent advances in chemistry have made it possible to make an examination of the blood by which it is possible to tell to a nicety just how far the kidney has lost its efficiency. How are we going to escape thesedegenerative, deteriorative tendencies when all are the result of wrong habits? The only way is to return to Nature by means of the outdoor gymnasium and the swimming pool and sun baths. We ought to be able to do this every day in the year. In the cold season we can provide substitutes. I wear white clothes so as to get all the light into my body possible. If I put on black clothes I feel smothered. We should wear porous clothing and as little as is consistent with comfort so as to give our bodies an opportunity to come in contact with the air. Man was not born with a suit of clothes on. These clothes are all artificial covering and impose upon the body certain disadvantages. We need the light and the air in contact with the skin. There is no benefit from the odor that comes from the earth as some people imagine but there is an advantage in getting into the sunshine and coming in contact with the air, getting the skin tanned

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brown like an Indians. I hope those of you who are here this summer will get into the outdoor gymnasium and get into the sunshine the first opportunity you can get. Certainly there is very great advantage in this tanning of the skin. I must not keep you longer. I thank you for your attention.

END.

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Stereoptican Lecture in the Sanitarium Parlor, Battle Creek, Mich.,

Thursday, May 25, 1916,

at 8:00 P. M.
by J. H. Kellogg, M. D.

The idea of living the simple life is not a modern idea at all. It has existed two thousand years. Two thousand years ago there were a people known as the Essenes who lived naturally. John the Baptist is said to have been a member of this society. The early Catholic writers tell us that Christ was brought up among the Essenes and lived in a simple way on simple foods. The diet of John the Baptist you know was locusts and wild honey and that does not mean grasshoppers but a sort of fruit that grows in the forest. Seventy years ago a group of men in New England became impressed with the idea that nature is the best of all teachers and began to inquire how to live. Thoreau you know went out into the woods and built a cottage that cost him twentyseven dollars. It had one front door and two windows, an attic, a cubbard, a table, two chairs and a cook stove. He lived very comfortably there. He found he could live a year on thirty dollars. The actual cost of foods was only thirty dollars a year. I think Mr. Hill was correct some time ago in saying it is not the problem of how to reduce the cost of living, but how to reduce the cost of high living. If you stop to think it over you will see that the things that cost so much are not the real necessaries of life. The real necessaries cost very little;potatoes, bread, butter, fruit and the other things that go along with a natural and healthful bill of fare, cost really very little . It is the unnecessary things that cost so much. It is the luxuries and the things

that are really notscientific and are in general more or less harmful. You have heard and read something about this Brook Farm experiment which was to some extent sociological but was also biological for they sought to find the best way to live. This colony had gotten ideas from Sylvester Graham, the pioneer food reformer in this country. They had here a Graham table where the Graham diet which excludes meats of all sorts was served. They had a school here. Margaret Fuller had a cottage in which she employed the methods of reform and education that she was promoting. The very largest building was destroyed by fire and not being insured it resulted in the breaking up of the colony. George Ripley was one of the leaders and Bronson Alcott was another. It was called the Brook Farm from the little brook that ran through it. We had a visit once from Bronson Alcott, one of the founders of the Brook Farm. He visited our town, came to the Sanitarium I think about twenty-five years ago. He told me he had not eaten meat for fifty years. In fact, he was so much opposed to meat that he attacked the practic of meat eating on every possible occasion. When he was talking to our patients in the parlor he made the rather remarkable statement that if a man eats pig, he becomes piggified; if he eats ox, he becomes oxified. So he thought that we become anamalized in a certain way by the use of flesh foods. At that time we did not know as we know now that this was really the statement of a scientific fact for the physiologists have discovered in recent times that the fact particularly of an animal when eaten is transported into the body and is deposited exactly as eaten, that is, if one eats pig fat and one gets fat on

pig fat, the fat in his own body is pig fat and if one eats quantities of ox fat, tallow, for example, a good deal of fat beef, then the fat is deposited under his skin in the form of tallow. If it is sheep he eats, it is mutton tallow that is deposited. Whatever animal a person eats, the fat of the animal is deposited in the form in which it is eaten. When he was lecturing in England, when he made this statement a man sag out, "Suppose a man eats potato. Is he potatofied?" Potatoes do not enter actually into the body as the fat of the ox does. Mr. Olcott did not know that at that time. We know now that the fat made by the conversion of the potato starch is human fat and differs from the fat of animals. It is peculiar to and characteristic of the human body. The natural source of fat for human beings seems to be starch rather than the fat of animals. One of the most remarkable men this country ever produced was Horace Greely who became interested in the Brook Farm experimment and adopted the Brook Farm regimen. He became a vegetarian but I am sorry to say he gave it up because he suffered so much from sour stomach and in those days we didn't know why one had sour stomach sometimes when he confined himself to a diet of fruits, grains and vegetables. I remember very well when I first became interested in this dietetic reform some sixty years ago almost; all my friends had sour stomach and I had it myself. Everybody suffered from sour stomach. At the institution here everybody had sour stomach and it was the general complaint when people came here that they came feeling very well so far as their stomach was concerned but after they had been here two or three weeks they began to have sour stomach. When I took charge of the institution forty years ago my greatest difficulty was to know how to prevent people from getting dyspepsiaafter they got here and it was really a very serious problem. In those days we supposed sour stomach was due to the fermentation of food and the universal idea among the doctors was that it was starch indigestion that made sour stomach but Prof. Pawlow the wonderful Russian physiologist found about twenty years ago that was a mistake. When one has sour stomach it is

rarely due to fermentation. The acidity one has inhis stomach is due to fermentation in hardly one case in 500, that is to acid fermentation or the fermentation of starch. It is ~~true~~ due to the fact that the stomach makes too much acid. If one takes a dose of soda he can neutralize the acid and the acidity will be cured. If one eats a piece of beefsteak or an egg, it has the same effect as the acid. The acid enters into a chemical combination with the alkali which neutralizes it and prevents the sensation of acidity so one with hyperacidity is more comfortable ~~with~~ on a fat meat diet than on any other diet. Prof. Pawlow explained that fact also by his experiment which showed that fat in the stomach prevents the formation of too much acid. In those days we tried to live without any sort of animal fat. We ate plenty of sugar because that was vegetable all right and plenty of maple syrupand all that sort of thing and the consequence was we all had hyperacidity and sour stomach. It is the simplest thing in the world to overcome this difficulty. If we had known it then, it would have saved us a great deal of trouble and that isto take more fat in the diet in the form of olive oil, butter or some other source of wholesome fat. Then the stomach will not make so much acid and after while the stomach may be trained to a natural condition. When one eats meat he must have a very acid gastric juice because a large amount of acid is needed to disinfect the meat, the kill the germs, the germs that are in it and afterwards digest the meat for meat requires gastric digestion. A dog that has had its stomach removed cannot digest meat. Meat cannot be digested without a stomach that makes plenty of hydrochloric acid. The stomach that cannot make hydrochloric acid cannot digest meat and meat in such a stomach simply rots. The people who have no hydrochloric acid in the stomach must avoid meat for it will only rot and decay in their interiors and produce a great deal of mischief. We didn't know those things in those days and in consequence we didn't know how to account for this hyperacidity. Nowwe know the cause for it. We know

that one has eaten meat until his stomach has become like that of a dog and makes a dog's gastric juice, really has a dog's stomach or a meat stomach, adapted to the digestion of meat. It makes the great excess of hydrochloric acid. If you change to a non-flesh diet and do not take care to eat a considerably increased quantity of fat along with it, the result will be a good deal of distress from the excess of acid. After while the stomach may be trained so that it will be to the nature of the human stomach again. If one adheres to a simple diet the time will come when one can eat a natural dietary without taking so much fat and the stomach still will not produce this excess of acid and therefore no discomfort. Horace Greely didn't know that. If he had, he never would have backslidden as he did. He became a chronic dyspeptic so he really died prematurely. We do not have that difficulty any more. That is why dietetic reform is making so much progress in these days. We have found a rational scientific basis for it. Wendell Phillips was the most brilliant orator that America ever produced. He, too, was interested in the diet reform. We had also the honor of a visit from Wendell Phillips about 25 years ago and he told me for 55 years he had abstained from flesh foods, that he had not eaten any meat at all for 55 years with the exception of a little fish on a few occasions when he had been away from home and could get scarcely a thing to eat. This noble man who did so much for our country, for creating noble ideals and inspiring the public to adopt them, I am very proud to say, was one of the leaders in the diet reform which helped to lay the foundation for this institution. Hawthorne spent some time with a book, "Farm Colony" and used to walk about the broad spaces of the farm which afforded many beautiful walks. Charles A. Dana who afterwards founded the New York Sun and anumber of other prominent literary people, teachers and writers of that day, gathered together at Brook Farm and the influence of their work did not die although the colony perished but its influence went on throughout the world and

many were inspired by the examples of these people and the ideas which were evolved there were favorable seed that grew and developed.

At this time of year a great many people are thinking of going to some summer resort. We can all do that at home. We have prepared a little booklet entitled "The Simple Life in a Nutshell", which will help to show you how. We have another little booklet I think you will all be interested in written by Sir Wilfred Grenfell, the hero of Labrador. Dr. Grenfell made his first visit here a number of years ago and did not seem to like the place very much. We found him a most delightful man and he gave us a most deligthful address but he did not seem to be much attracted but afterwards he married a trained nurse and the next time he came I found he had a very different attitude toward our work here and the next time he came he brought along his good wife with him and his good wife said to me, "I have converted him". So we found himquite in sympathy with the Battle Creek ideas. He said to me, "Now, I am in Labrador, of course, and I cannot say very much on the fish question because our people get their living on fish you know", but, he said, I tell you the fact I do not eat fish myself". And his wife said "No, we never eat it". He got really so much interested this time that after he went away he wrote a little article about the Sanitarium entitled "The Soul of Battle Creek." He wrote it on shipboard while going across to France,where he now has charge of a large hospital. on relief work and sent the manuscript back here. It has been published in the Hospital and Medical Journals in this country and with the consent of the publishers it has been re-published and I am sure you will find it quite worth while to read. At our Battle Creek summer resort we emphasize the value ~~kn~~ of exercises of various sorts. The purpose of the morning exercise is to ~~kn~~ get everybody started right for the day, to get them

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to stand up straight, to lift the chest, to fill the lungs, and get a good send-off for the day. The principal advantage we expect people to get from the exercises is to learn to stand, walk and sit correctly. I received a letter a day or two ago introducing a patient and the doctor said to me "You will see that this patient is suffering chiefly from the results of bad posture". I was glad to get that letter. I do not think I ever received before a letter with that kind of diagnosis. A lady had been in the habits of sitting bent over as most people do when doing fancy work, knitting, writing and reading. Most of our chairs have a vicious back curve which encourages a bad position. The abdominal muscles are relaxed and blood accumulates there, runs in like water into a stagnant pool, andthe brain and the rest of the body are robbed of the good rich blood that is needed to keep the vital processes going. These morning exercises are for the purpose of giving you a slight start, showing you how to stand and sit correctly. Don't forget it. Our constant anxiety is to proselyte you. We ought to convert every single one of you and we would like to have you take along a good supply of literature with you when you go home to be sure you keep along the right line. These books are not printed just to sell. They are published by the Good Health Publishing Company which is, like this institution, a philanthropic institution. That does not mean it gives books away because it has to be self-supporting. This institution I think is rather unique illustration of a self-supporting philanthropy. It pays no taxes on these large buildings here and the appliances that are used. This institution is exempted under the laws of Michigan by being taxed because there is no division of profit and nobody can possibly realize or receive any benefit from the earnings of the institution. I worked here for forty years without salary. I am working still without salary. and I work as hard as I possibly can. I work all day and half the v-k

night and devote my entire time, my working hours, to the interest of this institution. I haven't any other business in the world and am very glad to contribute my time and that salary and I have been doing it for more than forty years. I have never received a surgical fee in my life and I have never received a medical fee. I have no fees and no perquisites of any sort from this institution but I have done, my colleagues have done as nearly as they could, for many many years the members of the staff here worked for a ~~xkx~~ salary for almost all of you would hardly be willing to offer to your chauffeur. You would expect to be turned down. Our Doctors worked for just a bare pittance. It is only in recent years that it has been possible to pay better salaries. The Good Health Publishing Company iscarried on in just the same way. The profits are used for publishing literature including the facilities and carrying on our educational work in the world. That is why these books are published. They are not to make money or somebody but they are ~~fmxk~~ for the purpose of educating men and women in the right way of life. We prepared a regular course of health studies. Our literature is the result of ~~xxxxxxxxxx~~ the accumulative knowledge about how to live that has been brought to light during the last fifty years, since the book-farm experiment started. The work was taken up here about twenty years later just fifty years ago this summer. The entire faculty consisted of one doctor and one man who had been an honest farmer from the country. They two were the whole business department. The entire family, workers, nurses, and patients were gathered together to have their picture taken. A little farm house was purchased by a dozen men of whom two were my father and a brother who furnished the money to start this new book-farm experiment if you please. When I came forty years ago this summer, I was elected as superintendent of the institution. I was so frightened I fled the town, went East and refused to undertake the job. There was quite a family of patients but

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the work ran down steadily until the next year the president of the Board came down to Wilmington, New Jersey, where I was stopping and told me the Board had taken action to close the institution up, to give up the enterprise and wanted to know if I would come and take charge of it. Under those conditions I agreed to come for one year and here I am still. (Applause) I took charge of just twelve patients. There were twenty the morning I came in to take charge but there were only twelve the next morning. They had already made arrangements to go away because they had heard a small boy was coming in to take charge of the institution and they would not stay. I should have done it myself I am sure if I had been a patient. But the patients who came afterwards stayed a longer time so in the course of a few months we had one hundred people here and when spring time came this whole neighborhood was built up with people and we began the erection of a Main Building, erected at an expense of $115, 000. The building was built with patience. It was dedicated thirtyeight years ago this spring, filled with patients as fast as the rooms were finished, and the building was dedicated and finally it was full from top to bottom. In a few years we had to put on an addition at the south end and in a few years more had to put on an addition at the north end. Then added a story on top and some additions behind. Then another building was erected what we call East Hall and later a hospital building was erected. Fourteen years ago last February fire started in the basement and in two or three hours these two large buildings were nearly consumed. They were brick veneer buildings with wood frame inside and burned completed. Both buildings were complete destroyed and four hundred patients were turned right outdoors in mid-winter in February. They found lodging where they could. I arrived the second morning after the fire and we got things in order as well as we could and started treatment rooms over in East Hall and the basement of

the building across the road which we rented at that time and of the four hundred patients I think about three-fourths remained in spite of the fire and the patients continually came although the fact was announced all over the world, even in the London papers, announced the fact that the Sanitarium was burned. Still people continued to come. I said to a woman who arrived two weeks afterwards," Didn't you see that we had a fire here? Why did you come so far from home?" She said, "Oh, Doctor, I felt so bad that I just could not wait. I thought you would find some way to take me in somehow so I had to come". In the course of another year they had erected this present building. To do this it was necessary to borrow one million dollars and the only security we had to offer was the ground and the ashes but we found good friends enough in different parts of the United States who offered their assistance so that we were able to borrow from I should think five or six hundred persons altogether, one million dollars which furnished the building and equipment. Two years before our fire our present Annex had been erected with the avowed purpose of capturing Battle Creek Sanitarium patients and it was so announced as a beefsteak Sanitarium. The idea of the promoter was that if they would give people beefsteak

The idea of the promoter was that if they would give people beefsteak they would get all the patients from the Sanitarium to come right over there because they couldn't get any at the Sanitarium . The Promoters announced this everywhere and raised stock on that idea. A friend of mine was approached and solicited to buy some stock and was told how they were going to get the people by giving them fine beefsteak. I am verymuch ashamed to say that this friend of mine replied, "Oh, Dr. Kellogg wouldn't let you get the start of him that way. If he found the patients going away he would set a beefsteak table too." The promoters of this rival enterprise said, "Don't you believe it. Dr. Kellogg will never come down a letter as long as he lives" so the institution was built I am confident in the stability of the Battle Creek Sanitarium principles. At the time of our fire the building was pretty empty. They had only twelve or fifteen patients. 150 patients went over there the first thing but in two or three days they ware all back but about a dozen. Various attempts were made to operate it but without success and four or five years ago it came into our hands at about one-third of what it cost. When the building was being constructed I had the audacity to say that they were building it for us. I said to the promoters"You have no mission. You have no reison d'et. You have no real reason to exist. You haven't any mission to the world or any message and consequently your life will be a short one." Their career was shorter than I expected it would be . I took a good deal of interest in seeing how it was they progressed because I expected we would have to use the building in time and I am very glad that it came along just as it did for when we were able to secure it, we had just reached a point in our history where we had to have this additional room and we could not possibly have put up the building. If we had had to borrow the money and build it , we simply could not have done it, because we had not gotten far enough away from our big debt of one million dollars to make it possible to do it but when we were able to purchase this nice building on long time at one-third of what it

cost - we only paid $125,000 for the whole building, furnished and equipped--we considered it really a special Providence. Our present laboratory building across the street was a college. It and the buildings connected with it were put up,I think, at a cost of something like $110,000. The college moved away from town and these buildings also fell into the hands of the institution at about half their original cost. Our new surgical building is fitted upwith the finest appliances the world knows anything about. These with West Hall, East Hall and South Hall, constitute our larger buildings. In Washington not long ago I noticed the Treasury Building had copied the pattern ofour Main Building. Perhaps I should say we followed the rennaissance style that is appropriate for a building of this kind. When I learned about the fire which consumed our two main buildings I was getting off the train in Chicago at 10:00 a'clock at night. A porter stenographer came to meet me and a newspaper reporter met me at the train and told me about the fire. I got aboard the train, answered a number of letters, then went to work on plans for the new building and when I got home I had the plans for this building in the rough, ready to start a resurrection from the ashes. We then got several architects to compete for the plan . I gave them instruction that we wanted a building whichwould have beauty in lines andproportion but without artificial decoration and I felt a little anxious when the rather grave style which we finally adopted came along, but so far as I can judge, the public generally has approved of our selection. The Haskell Home was about half a mile west of here, a Home for orphans. We had about 125 orphans. This was put with the aid of money given by Mrs. Haskell of Michigan City who presented us with $45,000. This building burned but the orphans fortunately did not burn and the property has gradually enhanced in value so that we shall soon be able to re-erect the building and carry on our training school for mothers and thecare of children as we formerly did. We have about fifteen or twenty children at the present time and our plans are being carried out but on not so large a scale as they will be a little later.

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In addition to our Main Buildings we have about forty or fifty cottages. I believe we have equipped as many as 100 buildings but, at present since buying the Annex, we do not require quite so many cottages as we did before. Sometimes a family or two families will occupy an entire cottage. Sometime agowe had a telegram from Arkansas announcing that a whole Pullman sleeper full of people were coming here at once. Because of our departure from the natural primeval primitive life that naturally appertains to the human race, because of our departure from it, a great number of horrible ills have come upon us. Consumption is one of the consequences of living indoors instead of outdoors. It is a house disease. Pneumonia is another house disease and these two maladies are carrying off three hundred thousand persons alone in this country every year. Both of these diseases are absolutely preventable. We have no business to die from either one of those diseases. Tuberculosis has come to be so common that I suppose if a critical examination was made of every person in this room there would not be five people in the room who would not show some traces of tuberculosis in their bodies. Fortunately, it is a curable disease. Most of us have had it and gotten over it. There is no disease that I know of that is so curable as this disease. The body fights against it and successfully in most cases. Yet every year 150,000 people die from this one malady. Pneumonia is also a catching disease. If you have anybody about who has pneumonia, keep away from them. Let the trained nurse take care of them. You can venture nearby but do not stay near them and be very careful not to be anywhere around when they are coughing. Look out for everybody who coughs because the coughing may project into the air from pneumonia germs that have been left behind in the throat. One who has had pneumonia will carry the germs in their throat for weeks and months and may not get rid of them at all. Another horrible thing is cancer which at the present time is increasing so very rapidly that 1/7 of all women who die over forty years of age die of cancer and one out of ten of all women who die, ~~over-forty-years~~ die of cancer. Women suffer especially from it in consequence of their sedentary

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lives. If we confine ourselves to a consideration of those forms of cancer which affect other organs of the body aside from those peculiar to the sex, cancer which affects the throat, the stomach and the intestinal organs, men have three times as many cancers as women do. Cancer of the stomach, throat, lips and internal organs - more women die because of their great liability to cancer because of the prevalance of certain special diseases and injuries that women are subject to through child bearing and the very great frequency of cancer appears but eliminating those forms of cancer men are three times as subject to cancer as woman are. Cancer is a disease of civilized life due to artificial habits. Scientific men have not yet agreed exactly as to what but it is something immediately and directly connected with our civilized life. Wild men and wild animals are free from cancer. Wild tribes, especially the tribes that are not flesh eating, know nothing of cancer. Dr. Senn, some years ago in traveling down the Eastcoast of Krai Africa, studied carefully the habits of the natives and he reported that he found two diseases absent from that part of the world and those diseases were appendicitis andcancer. The natives of East Africa and of Central Africa, a great proportion ofthe dark continent, knew nothing whatever of those two diseases. They are practically not found among them. In fact, cancer is known now to be a disease of meat eating races of men and animals, especially in the state of civilization, not only men but the animals as well. In the London hospitals it is found that one in twelve of all people who come to the hospitals have treatment for cancer. There is a large hospital where they treat dogs and cats and in this hospital one out of seven or eight of all the dogs and cats have cancer and one out of twelve of human beings. Cats and dogs have cancer more often than human beings because they eat more meat and live a sedentary life. If they lived the wild life they probably would not suffer from cancer even though they did eat meat but a meat diet combined with other conditions of civilization is unquestionably a cause of cancer. The moremeat that is eaten the more frequent the cancer. Even the fish are becoming infected. Cancer in the trout begins in the thyroid gland

and all the fish hatcheries of the United States are greatly infected with cancer. Dr. Gaylord of Buffalo told me that every single fish hatchery in the United States is infected with cancer. I must not leave you with the impression that this disease is communicated from the fish to human beings for if the fish is well cooked, the disease is not communicated. The dirty habit we have of wearing clothes is partly responsible for skin diseases. Wearing clothes is the dirtiest habit I know of. Our skins would be clean if they were not covered but clothing has the effect to retain the effete matters thrown off by the skin so the skin gets covered and sometimes almost varnished with accumulated impurities. The skin is a savage who lives without clothing as fine as silk. In visiting Cairo, some years ago, I found a great number of people from the interior of Africa and their skins, though black as soot, were as fine as silk, absolutely free from blemish of any sort. There was a young lady suffering from sores. The clothing was not entirely responsible for this. The diet has a good deal to do with it. That young lady was almost entirely cured by a simple change of diet. She was a meat eater. The doctor took the meat entirely away from her and she got almost entirely well. Then a little chrisarobin ointment was rubbed on and she got entirely well and remained well as long as she lived on a non-flesh dietary. Four or five of the most eminent physicians of Philadelphia have made a very thorough study of this subject. They have found that when the entire body is covered with this horrible eruption, a non-meat diet will result in a practical cure of the disease. Diet alone in many cases will result in a cure.

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Dr. Bulkley of New York found many years ago that a rice like diet would cure psoraisis. He thought it was the rice that did it. I think he has now become convinced that it is the absence of poisons of meat that does it or the absence of meat. The reason is that on a meat diet the blood is filled with stimulating substances which over-stimulate the cells and cause a proliferation of the cells. In cancer we have a more virluent form of this excessive unhealthy cell growth. It is found an advantage to put these patients on a rather meager diet, that is, they are required to eat all they require but not a bit more. They all ate green vegetables, cereals, and fruit but not meat. Eggs and fish also were excluded as well as meat though they were allowed to eat eggs in moderation after the cure had been effected so you see it is not dangerous to adopt this low protein diet but it is an advantage. One of our converts to the simple life, to the low protein diet, of whose friendship I feel very proud indeed is Mr. Luther Burbank, the man who has done such wonderful things for plants. When I wasin California last summer looking after our Race Betterment Conference there, getting matters arranged before the Race Betterment Conference, Mr. Burbank asked me to come to see him. I went to his place and was delighted to find him in his office. He insisted that I must stay. He led the way into his office and as he was walking down the hall, he turned a hand spring and landed through the door into his office. I was surprised to see his vigor and agility. I think he is about 67 years of age at the present time yet he is lively as a cricket with the joy and activity of a boy of eighteen or twenty. I talked to him about his habits, found he never smoked in his life, never used liquors in his life; always lived the simple life. I was very much surprised when he said, "Dr. Kellogg, I am particularly glad to see you. I want to ask you a whole lot of questions because I owe the fact that I am alive today to you. I got hold of your Battle Creek

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literature a number of years agowhen I was so bad off I really thought I had but a little time left and it made a new man of me but there are some questions I want to ask you." He had had some difficulty with the nonoflesh diet and did not know quitehow to overcome the difficulty and when I left his office he said, "I am never going to eat any more meat. I am a thorough convert to the idea of living simply and biologically." It is the biologic life. We must recognize the fact that we ourselves belong to a great tribe of animals known as primates as the chimpanzee, the ourantang and the gorilla all of which are members of this great family of primates. The animals that belong to the horse family all eat the same diet. The animals that belong to the deer family all eat the same food. The primates all eat the same food also with the exception of man and man as the Bible says has sought out many inventions and has undertaken to change his natural habits,to depart from them. He was born out of doors but he moved into a house and gets consumption inconsequence. He was born to live on a diet of fruits and grains and simple products and abandoned that diet and has adopted the diet of a scavenger, the hyena, the turkey buzzard and the wolf. In consequence he gets cancer and becomes short lived. The surest and only way to sound enduring health is to return to the biologic way, to obey the great biologic law which pertains to our class, to learn to eatand live scientifically. Mr. Burbank recognized this. He said to me, "You know if we could only get people to live right, to obey the laws of eugenics, it would not be long before we would have a new species of human beings." I said, "How long do you think it would be?" "Why, in six generations we could have an entirely new species of man. He said the first two or three generations would not show much change but when we would come to the third,fourth, fifth and sixth generations, there wouldbe a marvelous change for the better." That new race of men is coming by and by. The world will be peopled sometime in the future by a splendid race of men that will be as much superior to

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the people who are living on the face of the earth now as the most highly civilized people are above the lowest savages at the present time. There is no question about that. This idea is not a new one at all. Read what Plato says about it in his two republics in a dialogue between Socrates and Glaucon. Socrates went on to say that if we eat meat we shall have to have pastures for our cattle and by and by we shall have to have larger pastures; then we shall have to cut a slice off our neighbor's territory and so our neighbors will go to war with us, so he found in meat eating the cause of war. He also found that through meat eating came an increase of diseases and dieases multiplied doctors and more doctors made more diseases so flesh eating was responsible for doctors, for diseases and for most of all of the troubles of civilization. Some people say, but if we do not eat meat we shall not have any energy. Meat is the source of energy. They forget about the fiercest animal of the forest, the gorilla. In the 400 mile square in the Congo, the region in which the gorilla lives, there is not to be found a single lion. The gorilla has driven them out. Which one will eat the other? Here is a rather fierce looking beast with horns, great teeth and great strength and here is a gentle creature. Which one will eat the other?

I thank you for your attention.

END.

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BACCALAUREATE SERMON TO THE NURSES GRADUATING CLASS AT THE SANITARIUM CHAPEL,

SABBATH, JUNE 3, 1916 at 11:00 A. M. By

BISHOP W. S. LEWIS.

Bishop Lewis:

The class of 1916 and friends.

In bringing the message of the morning I would if I could interpret the spirit of this institution as I believe this institution interprets the life of Jesus Christ and in doing this I would have in mind all the time that noble man who sits at my right who, during more than four decades has poured his life out for the suffering and the sorrowing building our bodies and building our spirits into a nobler and a more helpful life. I would have him in mind and I would have that noble woman whom we seldom see but all of us feel and know Mrs. Kellogg. I would have this man and this woman, father and mother of forty children, the children of love, children of spirit, scattered here and there throughout all these villages and the far distant countries beyond and so if it would not embarrass my friend, we owe our lives to you, Doctor, and I would have in mind at the same moment this other man at my left and that long line of ministers who have opened the word of God in holy things in this institution. I would have especially this man in mind whose mind has been a beatitude to those of us who are here and to hundreds, yes thousands, of those far away from us today and I would have in mind too the superintendent of nurses, this woman who has brought to this class and to other classes a ministry of love and devotion that remind us all of the Master's presence. And if I could I would bring the

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message of the morning as that we all plainly see that the doctors, the surgeons, the nurses, the men, the women, who helped to build this great institution have been building in harmony with that spirit of Jesus Christ as it was exhibited in Gethsemane on the cross and all of us together would be waiting for the morning of the resurrection and this would properly interpret any poor word that I might say and my only concern this moment is that word spoken will not at all represent the heart beat that rests back of the word and the thought that wells up in your hearts and mine as we read before God in this morning service. And you say the text? You have heard the text. What I have to say will be grouped around the life of that woman of whom we have heard far too little, Dorcas, the heroine of Joppa, Dorcas, the servant of the early church, and she will stand forth as the text of the morning reviving her memory in this present and seeking to give interpretation to her life as she has been interpreted to all of the church in all of the years since she layed her life upon the altar of service. There is one credential always interpreting the presence of Jesus Christ and that credential was and is the sacrificial glow for sacrifice lies back of the deepest meaning of this life that is ours and sacrifice not perhaps an altar builded out of wood or stone but sacrifice really and truly that is wrought out of the every day life in this world is the true interpretation of all that is greatest, of all that is best, of all that is most akin to godliness in human affairs. And the world is builded upon this thought and the world interprets this great truth in its deepest and holiest and most hallowed life. The physical world represents this truth. There is nothing so costly in all the world as sunbeams. Sunbeams fall upon us at our working in the morning and bid us good night when the shadows gather upon the western sky but sunbeams so common, so all pervading, are after all the most costly thing, so costly that silver or gold or diamonds make no account of their wealth for sunbeams are built out of burning worlds. Worlds are consumed and out of that flaming, burning,

seizing orb of day there glide through the millions of miles that intervene between us and this king of day, there glide these costly beams that fill the world with potency and with beauty for, though we know it not, there is a quality in the sunbeam without which no vegetation on this earth would live. There is a quality in the sunbeam without which no animal life on the face of the earth would be. There is a quality in the sunbeam costly, costly as the wealth of worlds unable to purchase, though consumed in its getting. I say this costly sunbeam is the cause of your life and without it we die and die immediately. And so this cost of all life, this glow that falls upon the face and fills the heart with hope and fills the mind with beauty and fills the eye with gladness--this sunbeam is the result of sacrifice, such sacrifice as is devoted in burning worlds. Now this great thought of a sacrificial basis for physical life, for the things that we consumed this morning in our food, the raiment that we wear, the ordinary things that are about us every moment of our lives--all of these are born of infinite sacrifice. The books we read, the books that charm us most, the books that fill us with the most inspiration, the books of philosophy, the books of history, the books of poetry, the books of life, are wrought out in sacrificial heart beats and brain sweat. Nothing in this world worth the having has come excepting it has come at great cost and at sacrificial expense. And this book of books that I hold in my hand, this book on every page of it, from Genesis to Revelation, through all its chapters you find blood marks. If you come close enough to it that you may understand its real origin and feel the impact of its mighty words, blood sweat, heart sweat, brain sweat, life sweat, God's infinite pouring out through humanity this wonderful word that is caught in record in these sacred pages, and you and I have stood beside the Master in the mount of transfiguration and there we have learned the meaning of this sacrificial glow for He stood in the mount and it is said He talked with Moses and Elijah concerning the death that He should

accomplish at Jerusalem. This was the theme of that conversation on that glorious day when Peter and James and John went with their Lord into that Holy mount. There stood the law incarnated in Moses, the law that would not forgive, the law that said every jot and every tittle of offense must be atoned else the righteous God shall not be pleased. And there Moses stood representing the law--an eye for an eye, a tooth for a tooth, a hand for a hand, a foot for a foot, a life for a life, and this was the meaning of the law. And there stood the prophet of burning eyes, Elijah, who would not excuse, who would not palliate, who would not forgive, who demanded the fire of infinite wrath to express the meaning of God for a disobedient nation, to express the mind of God for a disobedient nation. And these the incarnation of the law and the incarnation of righteousness in the prophets stood face to face and looked into the sky deep at those eyes that shone from the sun of God and in the deep of the Christ eye they saw the law fulfilled that was given on Sinai and they saw the law fulfilled that was proclaimed by the prophet with burning eyes and they saw this law fulfilled in a cross, in a Gethsemane, in a calvary. That saw that deeper than all law, deeper than penalty as shone forth the law of life and the law of love and the law of forgiveness from the deep soul of the Son of God and they saw too as they stood on the mount with Him, they saw it and we have felt it--that there is no sin so black, there is no offense so red but that it may be washed out in the white life of His glorious spirit and if Peter and James and John looked up toward the Master's face they saw that his garment was white and glistening. They saw that the light, the sacrificial light that came out from his divine presence that filled all of His garments with a glow and that glow of that more costly light than that which shines from sun or sky, the light that breaks forth from God's eternal presence filling all space with a beauty that turns things, all physical things conceivable in earth or sea or sky

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and to know this same great truth, this truth that we hold in the text in the thought of the sacrificial glow, is also brought through Christ down to the theme of the morning. Here is His disciple for this is the name given to Dorcas. She was a simple disciple of the Lord Jesus Christ and there are just two words that express her whole biography. Some biographies that do not live are expressed in more words but this biography that will live as long as womanhood lives; this biography is expressed in just two words. There are "good words and alms giving." Dorcas was a woman who was full of good words and she was full of alms giving and these good words and this alms giving overflowed like all fountains, breaking from great deep fountains to great rivers, rivers that flowed down to the pasture lands and the meadows, rivers on whose banks the birds sing, rivers that aided by copious rains bring to the valleys crops and grass and flocks and herds and beauty and song and life. I say these two things, good words and alms giving overflowed the life
16,119 of Dorcas because the life of Dorcas was rooted in that foundation of goodness, in that foundation of giving that shall never, never pass away and now this good woman, Dorcas, gave her life to the sorrowing and the sick. She was a woman of hard work. She was up in the morning when the dew was on the grass, when the dew-drops glistened, when the birds sang their morning song. She was a woman that caught the breath of those that were weary and she caught the note of those that were sick and she brought to their sickness and she brought to their need a great consecrated life. She loved thevoice of distress, she loved the place of sickness and sorrow, she loved to touch those whose wounds were angry, she loved the company of those who suffered because she knew that under her touch these would become her thrones of power and she should give to the world a new life and from these sick comes a new heaven and a new earth. The love of Dorcas was largely in the needs of those to whom she ministered and the glow of her life because she digged deep, digged deep into the life of God, the glow of her life was

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seen on the cheeks of other folks and the wan cheeks and the feeble eye and the sorrowing heart came to rejoice thoroughly in that life that comes from the great heart of God. Now this is the interpretation of Dorcas. She gave all that she had. She was always poor but she was always rich. I know of only one rich man on the face of the earth, Doctor, and that rich man whoever he be is a man who has the infinite God for his banker. It is the man who does not put his jewels in the bank or the wearth or any such thing. He is the man who draws upon the infinite, who has direct access to the great heart out of which the world sprang. He has access to these coffers out of which all of the world were made and he goes straight every morning and every evening to the source of power, to the source of life. Now in reference to this, I never saw a man who was worth his multiplied millions unless he was mightier man than anyone I ever saw who was able to find his way back through his accumulated millions to the heart beat of God but it is the poor man, the poor woman, the one who always keeps his pockets empty but his heart full; it is he, it is he that has immediate touch with the infinite God and all the resources that are in heaven or in earth. All the promises of God are yours and are mine and so this woman, Dorcas, is an example to those who are here today. She is the woman who catches the glow of the infinite Christ and this glow which proceeds from the seat of sacrifice. It is when your hands ~~or the~~ ye Dorcases that are before me this morning, it is when your hands have grown weary and your feet have grown weary and your eyelids drop and you say it will never do, I am weary I can go no further, and when your step has ceased because of your weariness and your hand has dropped because it is tired, it is just then at that critical moment that this master life gives strength to your footsteps, gives prowess to your touch, gives might to your service, such as He could never give until your strength is exhausted and so like Dorcas pouring your life into the lives of others utterly wreckless of the ex-

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penditure of life as your teachers have been, these men and these women pour your lives into the lives of others and the glow of the face of the Son of God in beauty that finds no word to express it will abide and give life that shall never never end. There is another characteristic and I will name it and cease to speak, another characteristic of our divine Lord and that characterisitic is raising the common to the supernatural. It is the lifting of common things out of the realm of the common into the realm of the supernatural and if I can but just show you a ministry in common things, if I could only bring to you this lesson of how common duties, common service, common toil, common purpose, the every day drudgery of life may be lifted into a new altitude and may come into a new place in God's great economy of the life in which we live, I should be utterly satisfied with the moment that I am spending with you this morning. Jesus was one who always dwelt on the common things. His ministry was to the lowly. His ministry was a ministry that was filled with every day events. He left others to minister to the high and the mighty and the proud. He sought, he sought the women, such as women as were at the well, he sought the lowly man, the sick, the palsied, the outcast, the lepers. These are whom Jesus sought and through whom He spake his greatest word. Now this ministry of the common place--I want to bring that to you as the final examination of Jesus Christ to you and to me. Let us meditate upon this lesson for a moment. As we seek to understand the Maker of worlds, the builder of universities, the redeemer of the race, the one through whom the holy ghost was to be given to the world, and yet this man with his own hands washing the feet of His disciples, with His own hand after His crucifixion and resurrection preparing a breakfast for His disciples--this man toiling in the streets, toiling at the bench for He was a carpenter's son, He was born in a manger, and it has come to pass that this manger-born carpenter has become the hope of all the laboring men and the laboring women on the face of God's earth

but I hear some mornings in our streets sometimes, I hear people wishing for other days and other countries. It has been my fortune good or bad, I am not hear to say, but it has been my fortune to travel far among the ignorant races of earth and I know races who have never heard this name and I know millions of people who have never known the touch of the Christ and I tell you, you laboring men, you laboring women, you whose hands are hard with toil, you scarcely know the throne on which Jesus Christ has enthroned you because of His ministry, because of the message of this carpenter's son.Oh, the degradation of womanhood where Jesus has not come. Oh, the degradation of childhood where Jesus has not come. Oh, the degradation of laboring men and laboring women where Jesus has not come. This laborer who bore His own cross of calvary and fell beneath its weight and leaned hard upon the arm of the black man in order that He might reach the mount of His scarifice--this man who went himself toiling up the hill on which He offered himself for the redemption of the world--this man through His death and resurrection and ascension has become the hope of every laboring man and every laboring woman and every child that has heard the sweet sound of His glorious name. He has exalted place, He has shown us the dignity of providing a breakfast. Who is more popular in all this world among women than good cooks. After you have said everything about history and everything about fiction and everything about philosophy--if you will apply all these things to women I say above them all stands a good cook, a woman that knows how to cookand not kill, a woman that knows how to cook and make alive. God give us cooks and men too that can fight disease, skilled men, skilled women, who know the secret lurking place of those things that kill and know how to go down into the deep of disease and say with strong words and true in the language of the Christ, "Depart ye that shall." These men, these women, trained to save life, trained to lift life as they save it into new altitudes, trained to save that stream of everylasting life along the knifeblade, along with the medicine administered, a life that transcends the life that they

save as far distances transcend the acre of land on which you live. The message that I long to bring to you is this. Just back of your hand is a hand that was pierced. Just back of your heart is a side that was pierced. Just underneath your weary feet are feet that were pierced. Just when you offered your life as best you know in toil and sweat another life will emerge and break forth into your own life and you and the thing that you do will be transformed into the glory of sacrifice that fell from His own divine face and so,ye nurses, we bring you this word. Dorcas knew how to make good clothes and she knew how to make them well. Read the story and the advice of the great philosopher as he tells us it is wise to select good material. This cannot be overestimated to use good thread. He says earnest thread to bind part to part cannot be overestimated and then back of the thread and back of the good material is the good spirit that you pours into the thread and you pour into the material and the garment stands out as a representation of your life. Dorcas was a maker of good garments but Dorcas was dead and all the widows mourned and all the poor people broke out into crying and they sent for the best man whom they knew, the man that most nearly represented in their minds, Jesus Christ, and Peter came and they showed him the garments that Dorcas had made and when Peter looked upon those garments he said, "A woman that can make garments like these can never die. She rebukes death. The eternal life had gone into those garments and shone out from their sparks the warp and the woof and the threads and the shape and the color and all set forth a life that could never die and though Peter perhaps had never seen Dorcas in her life, he saw her garments after she was dead and he knew that anybody that would make such garments as these could never die and so Peter dropped on his knees before the bed of Dorcas and he talked into the ear of the God of life and the God of life heard the cry of Peter and saw the garments that Dorcas had made and he responded in terms of life and Dorcas arose from the dead and the honest garments that Dorcas

made became the key to the resurrection of the dead to the early church and this key today unlocks the mystery of life. If thou wilt be honest, if thou wilt be true, O members of the class of 1916, if thou wilt follow the line that is layed down to thee by these teachers, by this institution, you shall learn that the secret of everlasting life is bound up in daily toil and you will learn as you sacrifice, as you bury your life in the life of somebody else, that life of somebody else will be the saviour of your life and shall lift you into altitudes of companionship of Jesus Christ of which you have never dreamed and this is the message of the morning, the message of this institution that has been the saviour of so many of our lives, the message of this man as he interprets the message of Jesus Christ. With these examples, and above all with that infinite example before our faces, go forth to your lowly work. It is not lowly. You work in the night but in the morning you shall see in the faces of those for whom you labor the glory of sacrifice, the harbinger of the resurrection morning.