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SANITARIUM PARLOR LECTURE. (Jan. 5, 1898.)

H Y G I E N E .

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My Friends, I am a physician of many years' experience, and when I entered the profession, like most other young men, I had what was commonly known as, the "big-head." I thought I knew all that there was to know and a little more. But as time has passed along and I have become riper in experience, I have concluded that neither myself nor the schools of medicine are the embodiment of all medical wisdom. We have very much to learn yet in regard to the human body, the power that moves it, and the best methods of healing.

I long since came to the conclusion that it was as much the province of the true physician to prevent disease, as to cure it, and for some time I have been laboring more along on the lines of educating people how to so live as to prevent disease, rather than the dealing out of drugs, as is usual with the practicioner of medicine. I am very sorry to say that with the majority of physicians, that they have but very little interest in educating the people upon how to live. That would interfere with their pocketbooks, you know, and most of the physicians, like other business men are "on the make ,"--they want to accumulate their "pile", and I very much regret to say that the majority of people are very apt to judge of a physician's qualifications by his success in accumulating property. We are very apt to say, if he accumulates houses and lands and title deeds, and all that sort of thing, that he has been a success, and we judge of his success by such results, whereas,

that man may have been among the most incompetent of physicians. But I must not dwell upon that.

Now I am glad to see that this institution is working out along the line of educating people as to how to live so as to prevent disease. I rejoice exceedingly to find that this institution is not only teaching people hygienic precepts, but also preparing foods by which mankind can live hygienically and as they should do, and avoid disease.

I propose to talk to-night along on the lines of the inherent healing forces that are within the man, and which but very few understand, that is, outside of this institution. I am very glad indeed that precepts of this kind are being taught here, and continually taught, and with such grand results. I must say that I believe that there is a Divine power back of this Institution. I cannot help but think so. Now I have come here with some little curiosity to know something about the religious and theological views of this institution. But some way or another I find that most of the people are dumb along this line, , and so I have had to fall back upon my own judgment, and I long ago came to the conclusion that a bad tree cannot bring forth good fruits, and as I see that the result of this institution is good fruits, and that continually, then I am forced to the conclusion that, let the religious sentiments of this institution be what they may, they must be good.

The majority of people when sick are possessed of the idea that doctors are endowed with some sort of magical power by the aid of which they are able to exercise a sort of authority over disease. These people labor under the impression that no matter what the nature of the malady, if they can only get the right doctor, and the right remedy, that they may expect to be cured. The all-potent part which nature performs in the cure of disease, is too often overlooked, notwithstand-

ing the fact that all curative power really resides in nature, or God,--two synonomous terms, and not in the doctor, or his medicines. This healing power of nature which is implanted in the organization of every human being, acting ever in sublime activity, the ancients called **vis medicatrix naturae**. This is a potent power,--as potent as God himself. It is constantly building anew, and at the same time tearing down old structures and clearing away the debris, to make room for the new.

I hold to the postulate that the human body is a volume of divine revelations, just as much as is the Bible. I base the assumption on the scripture which reads "I will write my law in their hearts and put it into their inward parts."

It is well understood by the student of vital chemistry that there is within the body an inherent power which continually destroys and rebuilds the human organism once in seven years. I have in my lifetime lived in nine different bodies, and am now busy building the tenth. Not one atom that now composes my body had any place in it seven years ago. The workings of this building up and tearing down principle are daily manifested in the growth of the nails on your fingers and in the hair upon your heads. Not one atom that now composes your finger-nails had any place there six months ago. They are constanylt forming anew, always retaining their original form and appearance, unless accidents supervene.

Who, with a knowledge of these facts, can doubt the potency of that power that is constantly reproducing the nails of the fingers and the hair upon the head, and build up the entire structure anew every seven years, bones and all-- can doubt the potency of this same power to repair the mischief, when from accident or disease the functional or organic arrangement or harmony of this family of organs is disturbed?

There is no need of medicine in the work of reproducing the nails upon our fingers every sixteen weeks nor in the growth of the hair. There is no need of medicine in the sublime work of tearing down the structure of the entire body and rebuilding it anew. There can be no use for it then in the work of repairing the same structure from disease.

The elements necessary for the reproduction of the body in the manner described, are found in the blood. The blood contains every constituent of the ~~xxxx~~ body. Every corpuscle is in, and of itself, a miniature ~~xxxx~~ human body, a microcosm that contains fluid blood, fluid bone, fluid muscle, fluid nerves, cartileges, etc. But we have no evidence that the body changes in its entirety once in every seven years, and I think ~~xxxxxx~~ it requires no great stretch of credulity to believe that this same power, call it by whatever name you please, that can tear down so complicated a structure as the human body must possess the power of repairing this structure when organically or functionally diseased. This is rational, plain, common sense.

It is well known that when any part of the system is impaired by accident or otherwise, this potential power, without delay, commences to repair the mischief. A man has the misfortune to break his arm or his leg: The surgeon is called. He applies splints and bandages, and then--what? He leaves the case to the healing power within the man. It requires no argument to prove that there is no renovating power in the splints and bandages. These appliances serve no higher purpose than to keep the parts in juxtaposition while the ~~healigg~~ power within performs the most important part of uniting the bone.

It may be asked, " If medicine has no healing power in it, how, then, came an emetic remove impurities from the stomach? " In reply I would say, that the vomiting principle is not in the medicine, but in the man. If the vomiting principle is not in the man, why does

it turn the stomach to see an animal eating anything very filthy, like a dog returning to his vomit? If the vomiting principle is in the medicine, why will it not vomit a dead man? The same rule holds good in regard to cathartics: That they do produce discharges from the bowels, none will deny, but the cathartic principle is in the man, and no in the medicine. Improper food, or water, even, will produce this effect quite as often or oftener, than medicine. Cathartics will not affect a dead man. A rapid decline in the price of stocks is just as potent to produce undue action of the bowels with some men, as a dose of jalap: Many a man has discovered that the cathartic principle was within himself by having his note protested.

We have an abundance of evidence of the truth I am laboring to establish in the system of medicine known as Homeopathy. Homeopathy has become immensely popular as a system of medicine, especially in our cities, and its success affords abundance of evidence that the sanative principle in man is capable of curing disease without resorting to harsh modes of medication. The sooner the world is converted to this simple mode of medication, the sooner it will be ready to recognize the truth that the healing principle is in the man and not in the medicine. Most persons would have supposed that Hahnemann, the founder of this practice, had severely enough taked the credulity of his disciples, when he advised them to give the r patients, in all diseases, the drugs to be used in their decillionth doses. In the last periods of his life, however, and as experiences ripened, he came to recommend his decillionth doses to be smelled, only, and he averred that this smelling was sufficient to produce the desired effect.

Hahnemann was at one time treating a lady in London by his practice of olfaction, and after passing a bottle under her nose three or four

times and quietly returned the medicine to his pocket. The lady asked him what was his fee. "Oh," he said, "about a guinea." She quietly took a guinea out of her pocket and passed it under his nose two or three times, and then returned it to her pocket, thinking that thereby the doctor had received his full equivalent for the services rendered. And that ended to a great extent, the doctor's methods of smelling medicines. He decided that in order to get the full amount of his fees, that he must give them something. And almost all people, you know, are quite apt to value whatever they get by the amount that it costs them, and doctors, recognizing that truth, will sometimes deal out a great deal of medicineforthe sake of appearances, and for the sake of charging a pretty good sized bill.

To reduce a single grain of gold to a decillionth trituration, a mass of sugar fifty times the size of the entire earth would be required, Yet the founder of Homeopathy avers that a single grain of gold, duly distributed through such an inconceivable mass or masses of sugar would invest every single grain of these masses with the power to restore a morbidly desponding individual with a constant inclination to commit suicide (and all within an hour) to a peaceful state of mind, to love of life, to happiness, and a horror of his contemplated act, if he perform but a single olfaction, or smelling, of this decillionth trituration of gold. You will find by reading his book called "Provings" that he speaks of carbonate of lime. He says that he gave his patient a decillionth dose of carbonate of lime, and watched its operations for twenty-eight days, until it lodged in the big toe, and after taking it twenty eight days to get there, then it produced intense pain in the big toe. Now that man must necessarily have been taking a large amount of carbonate of lime in every drink of water that he drank, and I

would like to know how Prof. Hahnemann kept that single atom of carbonate of lime apparate from the rest that the man was taking every day of his life and kept track of it until it lodged in his big toe. Is there any Homeopathic physician present who will rise and expaain this wonderful thing? I do not say that it wasn't so, but it seems to me that it was rather a tax on the credulity.

Now then: That this leaving of disease to nature with the very little help that it gets from Homeopathy by drugs has proved preeminently sycce sful is shown by the facg that in almost every community, representatives of this practice are everywhere enjoying extensive patronagge.

I take the position that the ancient method of treating disease by the psychic forces was a rational one, yea, a scientific adaptation of means to an end. It was therefore amenable to law and established conditions, it may be studied and understood, and intelligently complied with, as are any other of the constant forces of nature. I use the term "rational" in contradistinction to the irrational notions mixed up with mental healing, and which have repelled so many people from ang and all consideration of it. Rational mental healing does not assume to solve allthe problems of mental philosophy or attempt to explain the infinite mysteries. It simply strives to give the truth as far as possible, to recognize the evident facts in the premises.

No one can explain xxx the modus operandi of the digestion of food in the stomach in all its minutia. We know that there are in the stomach certain juices called gastric, and acids called chloric, etc., and that these in some mysteriour way are called into service to dissolve and change the food carried into this wonderful chemical laboratory. But what these juices and acids are in their essence or the chemistry of

their action in the process of digestion, no one knows, nor is it necessary to know. We know that food taken into the mouth finds its way into the stomach by volition of the voluntary forces which are subject to the will, and then another force, not subject to the will, termed involuntary, takes the food and carried it through the process of digestion and assimilation without our knowledge or consent and in the most perfect manner.

Now when we have studied the modus operandi of the supersensual forces that digest the food in the stomach, that causes the heart to beat the lungs to heave, the liver to secrete bile and the brain to evolve thought, we shall find the subject of healing by these same subtle forces is not as inscrutable as many of our pseudo philosophers would have us believe. We shall find that we can know more ourselves of the law of healing than can be found in the catechism or learned in the schools of ~~xxxxxxx~~ sciencex/

This rational philosophy of healing is based on the fact that the healing principle is inherent in every human being--in every man and woman. And although not ordinarily subject to the will power experience has taught us that this sanative principle can be and ought to be, under the absolute controlof the mind. I long since discovered that those subtle supersensual forces co-existed with my body, and, ever in sublime activity, could readily be brought under the control of my will, and in all functional and organic derangements of my own body have relied upon it to a great extent for a restoration of the vital equilibrium. I have long since felt that my fastings would well subserve the interests of humanity by demonstrating the wonderful potency of the will in the domain of disease.

It was my unbounded faith in the potency of the will that enabled me to totally abstain from food for forty days, despite the predictions of the doctors, who said such a fast was an impossibility. It was my faith in this God-implanted principle within that enabled me to break my fast with water melons, peaches, milk, pears, apples, etc., thus nullifying again all the predictions of the doctors, who said that my stomach would never more digest food.

My stomach proved to be the most vigorous one of which history makes mention. So potent was it, that even when declared ruined that it digested sufficient food to add nine pounds to my weight in the first twenty-four hours after breaking the fast and thirty-six pounds in eight days,--all that I had lost. Now if all had such stomachs, there would be a "corner" not only on watermelons but on every other commodity used in the dietary of man .

Previous to the event that demonstated the possibility of a gain of nine pounds in weight in twentyofour hours and thirty-six pounds in eight days, no physiologist living would have admitted its possibility. It was faith in my mental power to hold my stomach in subordination when fasting and to call it into vigorous action when that long fast was ended that led to this unparalleled result.

The assumption that health and life can be purchased at the drug shop or injected into the veins in the form of serum is an imposition upon the credulity of the public. Physicians of all schools and no schools have been in the habit of extolling certain drugs hypodermically injected or taken into the stomach, as possessing wonderful curative powers. That person, whether he be an M.D., or a nostrum vender , is either a willful or an ignorant pretender. The healing power, I repeat, is in the man, and not in the medicine. I want to impress

that u on your minds. Some very good anecdotes sometimes find their way into the medical journals and the newspapers that quite nicely illustrate the truth that I am laboring to establish--that is, that nature does the cure, while medicines get the credit.

A German at one time was seriously indisposed, and applied to one of our American physicians for professional aid. The doctor as usual wrote out his prescription, and handing it to the patient, said: "There, take that," supposing that he would go to the apothecary and get it filled. Meeting his patient a few days afterward he inquired after his health, whereupon the German replied "I do feel quite well, but I had some difficulty in swallowing the prescription, as I never before had eaten paper." But the paper did the work quite as well, perhaps better, than if the man had gone to the drugstore and had had it filled.

There lives in Skaneateles, New York, a couple of old people who think much of each other. Not long ago the husband was taken ill, and the good wife rummaged around until she found a pill box, and the contents of which resembled a little pill called "Early Risers" which the old lady once kept in the house. She gave them to her"hubby" regularly,--the contents of this box, which I will explain further on,--not the "Early Riser" pills,--and he improved. About a week after, when the box was about empty, the husband took it and happened to turn it over. He gave a yell that startled the household. His wife ran to him, thinking that he was dying. "Look!" he cried: See what it reads on the bottom." She did read, and she read "Prime Crown morning-glory seeds." His seeds had been taken under the mistaken idea that they were "Early Riser" pills, and they had just the same effect.

Not long ago, on a train on your Michigan Central Railroad, here, the porter of a sleeping car roused a half dozen of the male sleepers to ask if they had anything that would cure a case of colic. A drummer fumbled around in his coat and finally said, "Here is a box of soda mints which may help him, and he hanged to him, for he has no business to be having the colic on the sleeper at midnight, and disturbing the sleepers." Nothing further was heard of the man until morning, when a strapping young man with a far-away look in his hair came into the sleeper with the box in his hand, and he inquired for the drummer, to whom he said "Took us all but one, and they smashed my colic right in the eye. How much is to pay?" "Nothing sir, I am only too glad to be of service to you." When the man from the "Woolly West" had gone the drummer opened the box and looked into it, and we saw the hair trying to climp up. "Great Scott! boys, what do you think!" he gasped "I gave him the wrong box, and the man has swallowed eleven bone collar buttons." It was the bone collar buttons that had "smashed the colic right in the eye."

The anecdote is told of a physician who was called to a foreign family in a case of insipient consumption. The physician gave him a prescription for pills, and wrote the direction "One pill to be taken three times a day in any convenient vehicle." Now this was a foreign family, and they did not want to expose their ignorance, so they went to the dictionary to get the meaning of the directions., and they got along very well until they came to the word "vehicle; and they found "cart, wagon, wheel-barrow, buggy." But they could not, some way or another, couple that with medicine. What had they to do with medicine? After some consideration they came to the conclusion that it was the doctor's intention that the man should ride out and carry the pill with him in the vehicle, and he did so, and in a short time the exercise, and the

breathing of good air, brought about the results which were anticipated.

An Irish woman once sought the advice of a physician for a pain in her lungs. Now this woman was poor, and doctors,--some of them, you know,-- I would not do so,--but some of them are very apt, when they feel the patient's pulse, to feel the pocket also. Now this woman did not happen to have any money, and the doctor abruptly dismissed her, and simply told her to put a plaster on her chest. Well, the woman wended her way homeward, ignorant of the fact that she had any other chest but her clothes chest, so she applied the plaster thereon, with probably just as good results as though the plaster had been placed on her own chest. The pain in her lungs was controlled, -"smashed right in the eye," just as as the fellow's colic who took the bone buttons.

A doctor had been treating a little boy, and he met him on the street shortly afterwards, and the little fellow seemed to be quite well, and he said "Well, my little fellow, I see you are quite well: I was sure the pills I gave you would cure you. How did you take them: In water, or in cake?" "Didn't take them at all; I used them in my blow-gun."

The Hospital Gazette illustrates the value of this viz medicatrix nature, by telling the story of a miser who had injured both his legs in the same manner and to an equal degree. He called a surgeon, who seemed to magnify the nature of the injury, evidently for the purpose of defending himself for charging a good large fee for his services. The injured man, Mr. Elwes, recognized the situation, and being equal to the emergency remarked, "I do not considered myself much hurt, whereas you think I am; so I will make this proposition to you: I will take one leg and you shall take the other. You may do as you please with yours, and I shall do nothing with mine, and I will wager the amount of my bill my leg gets well first. Elwes delighted in telling this story,

and used to assert with triumphant glee that he beat the surgeon by a fortnight.

The most affectionate mother I ever heard of was one who, when her child was sick, took its medicine for it. It was some sort of bitter medicine, and when the time came to take it the child said "I can't take that, it is nasty." "Well, you needn't, Regia, mamma will take it for you." And she did and Regia got well, notwithstanding that he did not take his medicine. But what a child could stay sick long with such a mother as that?

Now let me call your attention to some other evidence in support of this theory: I presume that many of you when boys perhaps have been troubled with warts. I know that when I was a boy my hands were covered with these seed warts, and they were very disagreeable and unsightly to me, and I tried every means to get rid of them, but I could not do it, when one day a boy, a companion of mine, said to me "Hen., why don't you get rid of those warts?" "Well," I said, "I would very much like to know how to do it." "You just prick open one of those seed warts and then just go and daub your hand against some fellow that hasn't any warts, and he will get your warts, and your warts will all clean off." I followed those instructions out, and didn't think anything more about it, till one day I was looking at my hands, and I declare, every one of them was gone. I never knew when they went or how they went, or whether that old man with the "vehicle" came along and carted them off or not I don't know. But I know this, that they went. I know you all, or many of you at least, have had that same experience, and your warts have mysteriously disappeared with some sort of incantations or "Petering" that the boys indulge in.

Now Prof. Warren, of Boston, is a specialist for ovarian tumors, and he states in his work on tumors---I would say right here that Dr. Warren is a regular of the regulars and is recognized as high in authority, especially on tumors,-- now he states in his book on tumors that a lady at one time came to him with an ovarian tumor that was very far advanced advanced to such an extent that the doctor told her that there was no hope for her through a surgical operation, and advised her to go home and make the best of it. The woman was about leaving his presence very disconsolately, when she turned around and said "Doctor, I have been told that if I would rub the hand of a dead person upon this tumor it would go away. What do you think?" Well, the doctor says that his first impulse was to ridicule such an absurd idea, but remembering the power of imagination, and not wishing to rob the woman of anything that might smooth her pathway to the grave, he said "Well, it will do no harm, you can try it." The woman went home, and in a few weeks the doctor met her upon the streets, and he noticed at once that there was a very marked change, and he supposed that she had submitted to a surgical operation and in that way had been relieved of that condition. "Why, " she said, "I just simply did as you told me, I rubbed the hand of a dead person upon my that tumor, and it went away." This case shows the power of mental impressions. This is put on record before you; not by persons whom we regard as "quacks", but by a regular of the regulars, and they are not very apt to concede anything of that kind unless it is based upon fact.

Now the protecting and renovating power of amulets and incantations and the fancied occult influence of charms employed by credulous persons

to shield themselves from disease are doubtless to be ascribed to the action of the mind within itself and on the body. Some years ago I was the proprietor of a Turkish bath institution in St. Paul, Minnesota, and I was surprised at the many persons who came there who wore those amulets and charms, and all that sort of thing. I remember very distinctly one captain of cavalry who came there on a furlough and took his baths, and I noticed that he would never take off his amulet. I inquired why. "That has never been off my neck since I put it on there. so long as I wear that, there is no bullet can touch me, and no sword-thrust that can ever harm my person." About this time there was a boy used to come to my establishment who wore a dirty string around his neck attached to what appeared to be a piece of old dried bladder, and I asked him what he used that for. He said "As long as I wear that, I can never sin:" Now that is a pretty good idea. If this is really a preventative of sin, all of us had ought to go and get a piece of dried bladder and tie it around our necks. That would be a grand idea. Now we can find men in every community, professing a full share of general intelligence and business capacity, who entertain unwavering faith in potatoes carried in the pocket as a specific for rheumatism. Others will carry buckeyes, or horse chestnuts as a prophylactic for piles, and in every community you can find lots of people who wear a little cheap zinc ring, costing perhaps twenty-five cents,, and they wear it in the full belief that it cures rheumatism. Now this credulity may expose the subject to ridicule, yet this mode of treating and preventing disease is far more effectual sometimes, than many of the means and methods prescribed by the M.D's. It is not to be supposed that there is any sanative principle employed with an amulet, or a charm

or a ring, or a small potato carried in the pocket.

Now neither sustains any relation to the physicial result, except as their influance is exerted through faith. Now faith firmly established in amulets, charms, a string of berries from the mountain ash or the dried bones of a departed saint, or the contents of the witche cauldron, buckeyes, bread pills, starch globules, soda mints, or even Koch's lymph, will readily accomplish amazing physiological and psychological results.

During the seige of Breda the garrison was on the point of surrendering from the ravages of the scurvy, principally produced by mental impressions. A few vials of sham medicine were introduced by order of the Prince of Orange, as an invaluable specific. It was given in drops, and produced astonishing results,--such as had not moved their limbs for months before were soon walking the streets in sound health.

There was a practice in Europeam countries some time ago, when all persons suffering from the scrofula had afaith that the " Royal touch" was a specific for the disease, and the potentates of all the world would appoint one day in the year for this " royal touch, " as it was called, for the cure of scrofula.

Now from the long , long, periodxxxxxxx that this was kept up, there must have been some results from it, or it would not have been continued as it was. I once xxx heard of an old lady , quite advanced in years , who went to the Bishop to be confirmed. In a few days she put in an appearance again, and asked the Bishop to confirm her again. "Why," said the Bishop, "why do you wish to be confirmed again?" "Oh," said she, "it is so good for the rheumatiz."

Now we read in the Bible about Moses placing a brazen serpent in the wilderness and it states that Moses stated that all who had been

bitten by serpents, and would look upon that brazen serpent with faith to believe, that they would be cured. Now when we read our Bibles we take that as a fact; we don't doubt it at all. But if somebody should come and stick up a brazen serpent out in the wilderness here, and tell sick people to just go and look upon that brazen serpent and that they would be well, I think they would say that that was a great deal of a tax on their credulity, and I rather think that not many would have the faith to look on the serpent. But if there was potency in a brazen serpent in those days, there is to-day, if we only have the same faith to believe; but it is there we are lacking. Jesus himself said he could not do many works in Capernaum because of their lack of faith. Now how much faith is there existing in the world to-day in the potency of this healing power that is within us,-- this God-implanted principle? It is God-implanted. I want you to understand that if this power is brought into action it is because of the Divine power acting upon this vitalizing principle which is already implanted in the human being. Now this healing power is often called into active exercise by prayer, faith, fright, anger, jealousy, etc. Now I will cite a few cases in support of the postulates:

A few years since the Pittsburgh papers reported the case of Mr. Richard Hoofman, of Bentleyville, near Pittsburg, who had for years been a cripple from paralysis, and was cured almost instantly, by prayer. Dr. Jesse S. Scott, residing in Pittsburg, was a "regular of the regulars" and was Hoofman's physician. On being interviewed he said "I have heard of Hoofman's cure, and was very much surprised. He was undoubtedly afflicted with locomotor ataxia. When I had exhausted everything in my province, I took him before the Washington County Medical Society, and both Dr's McGenna and Little, and the society-at-large, said the case was incurable, and could give him no hope. The

disease is supposed to be incurable. I have no explanation to make. He was on his knees last week, but this week I see him walking, and know not how to account for him, unless the days of miracles have returned. " Now cases of this kind might be multiplied, but time will not permit. They, however, completely upset all the theories so industriously put in circulation by the enemies of metaphysical science. You will notice that in the case of the Payer-cure the physicians composing the county medical society, which is a very large one, in Washington County and includes the best medical talent of Pittsburg, decided that the case was incurable, and yet this man, after a few minutes spent in prayer, was restored to health.

During my army life I was made cognisant of a case where extreme anger had the same sanitary effect as in the case mentinned. A surgeon lay at the point of death in a military hospital, A council had decided that death was inevitable, and the physician himself felt that his end was near. Just before his death, however, another surgeon came into the ward. This surgeon was one whom the sick doctor hated most cordially; his egotism was disgustingly conspicuous, he put on airs, he strutted, he was "stuck up", he made the particularly brutal remarks that some doctors pride themselves on making under the supposition that they will thereby impress the common herd. This disagreeable sort of a doctor passed from one cot to another, pronouncing his verdict aloud without the least reserve, on each patient as he passed. He glanced at the doctor who was dying and gave a grunt,--"He's gone up, sure" he said. The dying doctor heard it and, boiling over with rage, he was so angry that he felt like jumping up and thrashing the intruder then and there. He had, however, to content himself with pouring out a

string of expletives that made the tent vibrate and the air turn blue. He reviled the other doctor with all the terms known to an army vocabulary, and swore a mighty oath that he would live to bury his enemy yet. The forces of life revived under the stimulus of anger ,,the excited mind called into vigorous activity the vis medicatrix nature . She came to the rescue, poured a healthful stimulus through all his nerves, the blood began to circulate and carry energy throughour his whole system. He recovered very soon, a living monument of the power there is in anger as a stimulant to call into vigorous activity the sanitary power inherent in man to do the ork of healing.

I will now cite a case where anger and jealousy combined had the same effect of restoring a patient to health whom the doctors had said was on the verge of dying of consumption. This lady was the wife of a minister in Brooklyn. The doctors held a council over her, and they said she must very soon dee of consumption. The wife called her husband to her to have a last talk before taking her departure, and among her other requests, was that he should never marry again. The minister thought the matter over, and he said "Wife, I can't conceive that this is a reasonable request. I have no thought of marrying again, but I donst want to make any such promise as that,--I don't know how I may be situated in the future, and I don't think it is right for you to require it." The tears began to course down her cheeks, but I suppose that man's heart was ossified, or something of that sort, and he would make no surrender at all, even though he was a minister. She then doubled up her fist and tried the fist and the tears together, but the man stood firm. Then the woman, finding all appeals of no avail, said: "If you won't make that promise I won't die." And she did not die, she lived thirteen years, and her husband passed in his checks before her, and then she was in a terrible condition of mind for fear that he

would find a woman over on the other side, and go and marry her. But she was a sured that "in that bourne from whence no traveller returns," that they neither marry nor are given in marriage. That ended it.

Now I want to speak of my wife's case: My wife, when I married her,, ignorant as I was,--boy-like-- had consumption, but I did not know it at the time. But shortly after we were married I noticed that whenever she got up from the table she would go to the window and commence gymnastic exercises, just such as you have in the gymnasium--this deep breathing, and all that sort of thing-- and I let her go on with that for a short time, and I noticed that she continued it, and I inquired why, and she said "Life is too sweet, I can't give up to consumption; I can't surrender to that power without at least a fight for my life." Now he continued that exercise for four months, and the result was that she gained four inches from ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ the point of one shoulder to the other, and three inches around the waist. Now that shows the value of your gymnastic exercises here, and what can be accomplished by this deep breathing. It is invaluable, and I wish that I could impress that thought upon your mind. I know that you have influences impressing it upon you, but I would make the impression still deeper. Continue this practice. The gymnasium I consider the most valuable annex to this institution. It is invaluable.

Now I want to speak of another case where anger and jealousy combined cured a woman of disease. This was a statement that went the rounds of the press, and the article was headed, "How Tom Cured His Wife." Tom had a wife whom I suppose would perhaps be called "hypoey" or "hysterieky", or somethin of that kind, and she was constantly having spells in the night, and Tom would have to get out of his good warm bed and go and get the doctor out of his good warm bed, to go to Tom's wife,

and the thing became burdensome on both sides. Tom got tired of paying the bills, and the doctor of being called out at night. So he took Tom one side, one hight, and said "Tom, we might just as well stop this thing now, as at any other time. There is no use of my being called up at night to ~~xxxx~~ run after your wife, and there is no use of your paying doctor's bills. Now the next time she has one of these spells, you just get the hired girl and get her up behind the door, and go to whispering to her in quite a loud voice, so that she can hear so that she will want to know what you are talking about, but not loud enough for her to hear what you are saying. She will forget her troubles and she will come up there and begin looking and listening to hear what you are saying. Now you begin talking about disposing of her wardrobe, and about her wearing your wife's dresses, when she is dead, etc." Tom carried out the program as directed by the doctor, and it all worked very nicely and sure enough Tom's wife heard Tom whispering with the hired girl and she wondered what they had to talk about, and she got up, and she found out what arrangements were being made, and she appeared on the scene in high dudgeon. "Now," she said, "I want you to understand that you are counting your chickens before they are hatched. You can never wear any of my dresses, and you can never be the mistress of this house, and I want you to understand that I will live, to spite you." Tom's wife lived, and he had no further trouble, and had no doctor's bills.

Now cases of rheumatism by fright are common. Should one set about collecting statistics of that character, they would be found to be very very numerous. Now you know our Christian science friends,--I have a belief in Christian Science myself to a certain extent and within certain limits, but I do think they make too great claims, and I think that alongside of any case that they can present that has been cured

by what they claim to be Christian Science, I can say alongside one that has been cured by fright, and you know that in fright you never claim any divine healing in that case, it is simply fright, and it goes at that Now I believe myself that all power is divine. I cannot move that finger without a divine power being at the back of it. Every motion of my body is by divine power. As I said at the start, these bodies of ours are a book of divine relelations, and God has said "I will write my law in their inward parts", and that law is in constant activity, and it is through this xxxxxxx law that these fright cures supervene.

Near Hornesville, in New York state,, there was a man he was bedridden with inflamatory rheumatism. It was in its acute stage, and he was very bad off. He was a poor man, and they had his bed up quite close to the kitchen stove. A friend came in, and advised the application of bottles of hot water to the bottoms of his feet. So the good wife followed out the instructions and got the bottles and put them in the oven, and left the corks in the bottles, and by and by the water got to boiling, and there was a pressure of steam, and presently the corks began to fly out, and the oven doors to fly open, and the griddles to fly off, and the man jumped out of bed and ran down stairs and down the street, and you could not see him for the dust that he made.

The Rochester Gazette not long ago reported an amusing case of fright cure: John McGinty , an Irishman, was terribly afflicted with the rheumatism and was not able to do anything but the lightest work, and so a place was found for him in the St. Mary's Hospital. In the second story was the dead-room, where the bodi s of those who die are placed pr preparatory to burial, and to this room McGinty was sent one night, to get a cross. He hobbled painfully up to the room in the dim light and succeeded in finding the corpse, placed as usual on a platform some three feet high, with the hands placdd across the breast, holding the

cross, which McGinty reached out and took, but accidently dropped beside the bier. Stopping down low enough to pick up anything from the floor was to him a very difficult and painful task, and, while engaged in it, one of the handsof the corpse which had been loosened by the removal of the cross began slowly and of its own weight to come towards him, and when it got past the center of gravity it came down with a whack! upon the back of poor rheumatic McGinty. Now he was sure that there was no living person in the room besides himself, and to have a dead man strike a man a blow on the back like that was enough to have upset a man less superstitious than this tramp printer, who went down the stairs two steps at a time, with his hair standing upon end. He was cured of his rheumatism.

Another case of fright cure was reported sometime ago by a Montreal paper, and it runs thus: "There is a man up in the 7th. ward who has not spoken to his wife for over a week. He has for years been troubled with cardiac rheumatism, or rheumatism of the heart, which the doctors reported incurable. He had for a long time been brooding over his troubles, and was constantly telling his wife that he would go off suddenly in the night. Some time ago she bought one of those rubber bags for keeping hot water in bed. It held about three quarts. Her husband did not know anything about it. One night after she had had the bag to her feet until they were about as warm as a piece of zinc, she thought it would be a good joke to put it on her husband's chest, and wake him up. So she quietly took the bag of hot water and laid it across him. The bag was about as big as a cow's liver, and as warming as a piece of shingle on a boy's tender sensibilities. It had not been on his chest before he opened his eyes, and, raising his head, said "Harriet, Harriet! My end has come." "Which end, my dear," said his wife,

as she rolled over, and then she put a pillow into her mouth and unscrewed the nozzle which holds the hot water in the bag. "I am dying, Harriet, I am dying", he said, "my heart is enlarged to three times its natural size, and Oh! I am bleeding to death." She had opened the nozzle and the three quarts of water had saturated him from head to foot. He made frantic efforts to stop the flow of blood, as he supposed it to be, she coolly struck a light and asked him if his life-preserver had sprung a leak. Then he looked at the rubber bag, took in the situation, went and wrung himself dry, and slept on the lounge the rest of the night. Although he was cured of his disease by the fright, he still says that his wife is the meanest woman that ever lived. She tells all her friends that Josiah was miraculously cured of heart disease.

There was a very amusing case in London some time ago, and this was the case of a nobleman, who had the gout. This man had been a high-roller and had the good things of this life, and he had the gout to that extent that he was compelled to take his bed, and he had ample time while he was there to think over his past life. The doctors told him there was no hope for him, and he had to lie there, and as he looked over his past life and his wickedness, and all that sort of thing, he concluded that the Devil had a mortgage on him. One day a monkey and a cat on the roof of the house got into a squabble--whether in play or a fight I don't know, I wasn't there,--and in the conflict they jumped up on the top of the chimney and clinched here, and in some way or another they managed to get into the chimney and they came down into this sick man's room, bringing down a cloud of soot and ashes, and you can't imagine the scene. He saw gleaming eyes, and he saw tails, and he saw claws, and he didn't know what to think of it, but he concluded that the Devil had

come to foreclose the mortgage, and he bounded out of bed, and away he went, and I presume you couldn't see him for the dust that he made.

Now I have in my life had three cases of fright cure brought under my personal observation. The first was in Painesville, Ohio, where I commenced my practice, years ago. This was a young lady who had been bed-ridden for four years. During that time she had had sixteen physicians, and I was one of them, and she hadre ceived no help from any of them us. He had been abandoned as a hopless case. One day the hirdd girl, who is expected to get up and get the breakfast on schedule time was a little tardy about getting up, and in order to facilitate matters she used kerosene oil plentifully in the stove, and you know how kerosene will act if you put a griddle down on the flame suddenly. It just came out at the front of the stove and caught the girl's dress, and she was soon enveloped in flames. Thus enveloped, she rushed into this sick girl's room, screaming for help. But she frightened that sick girl so that she bounded out of bed and ran down two flights of stairs and ran two blocks before she fell exhausted. Of course she didn't get well immediately, but it gave her an impulse so that from that time she commenced steadily to improve, and after a short time she was a well girl. Now that was brought on by fright.

The next case was a man whom I treated for rheumatism in Minneapolis. He was a blacksmith,--a strong, healthy man-- but he had rheumatism in the back and in the hips, etc., and was all stiffened up, and he hobbled around. Some of his friends asked him to go down to Lake Calhon and take a boat-ride. He did so, and they were coming to the shore, when, by some mishap or other, as he was standing up in the boat preparato y to leaving it, and he went over head first into the mud and water

Here was a perilous condition, and it required very great effort to relieve himself from it. But the effort of extricating himself from peril cured his rheumatism, and he was very soon a well man.

Now the third case was a man named Carey, in Concord, near Corry, Pa. I treated the man for lomomotor ataxia. I thought the situation all over and I concluded that if I could get a good scare on that man I could get him to his feet. He had rheumatism for four years, and had pads upon his knees, and he crawled upon his hands and knees, and I gave him a prodigious scare, and he bounded to his feet and away he went like a reindear, and I don't know but he is running yet, but, at any rate, he got well.

I have spoken of cases of Christian Science: Sometimes physicians use Christian science all unknowingly, and I will just cite one case to show wherein Christian Science utterly failed, when other methods cured the patient: This was a woman who firmly believed that she had a toad in her stomach. She xxx called in several physicians to get rid of it, and they all tried Christian science, and they tried to ridicule her out of the idea that there was any toad in her stomach. But another physician who had been watching the case and knew the experience of the others, concluded that if he were called that he would fall in line with the woman's thought. He would not cross her at all, because he had learned by experience that the woman's verdict on all those physicias who would not fall in line with these ideas,--that they were know-nothings, and were soon discharged. So it came this man's turn after a while and he sat down and heard the woman's story, and he said "I have no doubt but what you have a toad in your stomach; I have heard of such cases, and from the symptoms that are presented there is no doubt but what that is the matter, but we can get rid of that toad in your stomach." So

he went out and secured a tree toad and the next day he gave her an emetic, and while blinded from vomit he slipped the toad into the content of the dish and called attention to it, saying "We have got that toad, and you will be all right." She said "I knew all the time that there was a toad in my stomach, and I knew that they didn't know anything about it." Well, the next day she sent for the doctor again, and said "Doctor, I am afraid that there are some little toads in my stomach; I think that toad has had a family down there," and the doctor was compelled to pretend to take that toad and make a microscopical examination, and he assured her that that was a male toad, and that ended all her troubles.

Now I have spoken of the effects of fright, and I would now speak of the danger of fear proving fatal in persons even in good health. I remember during the Cincinnati riot, --I happened to be in the city, and I know that the rioters fired a volley into the rioters and mob, and that a great many fell dead and wounded, and when the parties who were deputed to take care of the dying were about their work, they found one man, that they could not find even one scratch upon his body. There was no wound, and the physicians were called, and they said this man must have died of heart failure, and they had a post mortem examination, and they found his heart was perfectly normal, and that there was no disease about it. That man believed that he was shot, and that belief was just as fatal as though he had absolutely been shot.

Now we all know of the experiments that have been made in Europe, with the soldiers who have deserted from the army. You know that the penalty for desertion there is death. Now there are numerous instances there where soldiers have been brought out for execution, and a squad of soldiers would be brought out and commanded to fire. The man sentenced

to be shot would drop, although all the guns were loaded with simple blank cartridges. But the effects upon the minds of those soldiers was just the same as though there had been a bullet in each gun, and each one had pierced the heart. You have all heard of the experiments which have been made in France with the man who was convicted of murder. He was sentenced to death, but the manner in which the penalty should be carried out, or the way in which he should satisfy the demands of the law, was left to himself. The doctor recommendd that he be bled to death. They said that that could all be done in the privacy of his ~~xxxxxxxx~~ cell, that it would be painless, and that it would all be over in a few minutes. The young man consented to that method of execution, the time came, and he was blindfolded, and the doctors went through the motions of opening a vein, and then they had a kettleful of warm water provided, and they turned it over the arm in a small stream and let it fall down into a receptacle below, ~~and~~ thus his sensations of hearing and ~~xxxxx~~ feeling were ~~xxxxxxxxx~~ made to deceive him as to the actual condition of things. The told him he would die in so many minutes, and he did die, although not a drop of blodd was shed. Now I might go on with cases to show the power of the mind over the body both for the cure of disease and for the destruction of the life principle.

Now you are all acquainted with the Sisters of Charity; I just want to ask your attention to them for a moment, and I will be through. You know that this class of persons are educated by their church to stand firm as adamant in all cases of immminent danger. You know that when we have yellow fever in our Southern cities, that then the Protestant people become panic-stricken and flee and scatter all over like sheep. They are frightened to death, and panic stricken, but these Sisters of Charity will go right in the midst of this disease and will stand

there firm as adamant, and do their duty. Now you know that that class of persons very seldom become victims of that disease. What is the reason? It is because they have placed themselves in positive relations with the disease, and the disease is repelled; it cannot come near a person who puts himself in positive relationship with such diseases, but it is the persons who are panic stricken and palsied with fear who are the very ones who take the disease.

Now I see that you have a class of trained nurses, and I would say to all such, just cultivate that disposition to stand firm amid all perilous conditions. Cultivate that; be strong; have an indomitable will power that will not surrender to any or all conditions.

Now you will no doubt infer from what I have said that I am in favor of breaking loose from the usual methods of the profession, and following Shakespeare's injunction "throw physic to the dogs" and leave disease to the healing powers within the man. And yet I would not have you jump at any such conclusions. I am not here to lay down rules for the government of all. I do not regard the psychic forces, in our present condition, as a universal specific. I am not in the field as an iconoclast, but as a builder up. I am working with the firm conviction that man should be educated to know himself mentally, morally physically and spiritually, as far as it is possible to know. Each man or woman is a law unto himself or herself, and owing to the endless diversity among men in regard to physical organization, combination of temperaments, states of mind and varying degrees of susceptibility to physical mental and moral influences, the agent employed with success in one case and for one disease may, and often does, totally fail in another case of the same general type.

Speaking for myself, I can say that I have made a study of the laws of life in the experimental school, and I have been forced to the con-

clusion that the restorative principle is inherent in myself, and not in the medicine. I subjected myself to privation and suffering for the purpose of getting at this truth, and, having found it, it is to me a pearl of great price, for my faith based upon this knowledge is sufficient at any and all times to restore the equilibrium of my own vital forces if from any cause they become disturbed. But to one who is ignorant of this law whose education has been such that his fears of disastrous consequences can only be overcome by resorting to drugs in common use, it would be the height of folly to dismiss such a person with instructions to rely on nature for the removal of his or her disease We must take humanity just as we find it. The more timid ones, whose fears triumph over their faith and will, we must continue to drug until they can be educated to hold their fears in subordination tothe dictates of hygienic wisdom.

All these systems have merits, and are adapted to meet mankind upon the different planes upon which we find him. Therefore all should be fostered; none should be crushed out under the iron heel of legal oppression or religious intolerance. All these mental and physical forces are tending to unity, and this unity opens up to the vision of those who are cosmopolitan in thought, xxxxxx vistas of scientific possibilities sufficient to make all lovers of the race jubilant. But what is the best course to pursue with the great multiplicity of diseases that now afflict humanity while this educating process is being inaugurated, is the question which demands consideration. I know of no better methods of meeting this condition of humanity than those which have been adopted by this institution. I cannot see wherein it could be possibly improved. This institution, I am sure, would very

gladly abandon a 1 drug treatment if so be that all were educated up to the ideas of truth which have been presented here at this time .

You know that in China the practice is the o to employ physicians by the year, and not by the visit, as they do here, at all, and whenever one of the family gets sick the physicians pay stops at once until that patient gets well. Now that course of procedure compels the physician to be an educator as well as a practicioner, and it is wise. We may point the finger of scorn at those pagans over there, but in many ways we can learn lessons of wisdom from their practices. And if so be that the time should come that we should adopt their methods in so far as the treatment of the sick is concerned, it would compel physicians to be educators as well as practioners, and that would be a very safe and happy reform.

SANITARIUM PARLOR LECTURES.

How to Get Well Quick. Jan.27/98.

J.H.Kellogg,M.D.

Recently

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Good evening, Ladies and Gentlemen: What shall I talk about to-night? I would be much obliged for a subject. (A voice.) "How to Get Well." I suppose you mean,"How to Get Well quick?" ("Yes.") Well that is a very interesting and practical subject. In the first place, if a person wants to get well quick, he must be in real dead earnest about it; he must be thoroughly resolved that he wants to get well. You know there are some people who are not in earnest in the matter of getting well. And that is the real reason why they don't get well,--they are not in real dead earnest about it . Some patients are not very sick; they are only just comfortably sick. I once asked a lady how she was getting along and how long she had been sick. She said,"Oh, I have enjoyed poor health for many years." Now if a patient is in such a state that they enjoy poor health,--just sick enough to be comfortable, so to speak--it is very difficult to cure such an individual, because the patient has really no incentive to get well. We had with us, some years ago a gentleman whom I will tell you about first. He came into my office and said, "Doctor, I wish you would examine me and tell me just what is the matter. Now doctor, don't be afraid to tell me just how bad off I am, for I can stand it,--I am prepared for anything, and I want you to tell me all about it." I then made a thorough examination of the man,and then he said, "Well, doctor, what is the matter with me?" I said, "I think you have a very bad stomach; you have nervous dyspepsia, and gastric neurasthenia, and paresthesia of the lumbar ganglia

of the sympathetic nerve." He said, "Is that all?" "Well," I said, "of course you have a great many other troubles,--your skin is very inactive, and your nutrition is bad; besides, you are not in as good flesh as you ought to be." "Is that all?" said he. "Oh," I said, "there are other things,--you have a very inactive liver, and of course your nerves are very weak, and I should judge that you are growing old faster than you ought to, your pulse is very slow, and your heart is a little weak." He said, "Is that all?" I said, "Of course there are a great many other things that might be mentioned, but I think I have mentioned the principal ones." "Doctor," said he, "I don't think you understand my case." "Why not?" I asked. "Because I have every reason to believe that my case is a hopeless one, but you don't make it out to be very bad,--do you think you can cure me?" "Yes," I said, "I think we can cure you,--I have no doubt about it." "WHAT! do you think you can cure ME?" I said, "Certainly I do; I have no doubt about it; I am certain you can get well." You ought to have seen his countenance fall,--"Doctor," said he, "You don't understand my case, or you would not have said that. I am satisfied that my case is hopeless, and I have been thinking that it would be a good thing for me to invest my property (I have a few thousands left) in a Home for Incurables--a home where I can live, and have several other incurables like myself to live together,--but you say I am curable, and that upsets my plans. I thought it would be rather a nice thing to have a home for incurables and gather in other incurables and hopeless cases, and there we would be as happy as we could be together while we live." "Well," I said, "I certainly don't see anything incurable in your case." "Well, doctor," said he, "I am sure you don't understand my case

and I would like to have you think about it." I said I would,--in fact I began to have a little new light on his case, and according to that I began to thing that perhaps I had given the man the wrong diagnosis--so I said to him, "I will think your case over and tell you what I think of it . You come in, in a day or two and let me examine you again." He went out, wearing a very long face,--a very sad countenance. A few days afterwards he came in and I examined him again, looking him over about as I had before--I felt of his pulse and looked at his tongue and looked at his eyes. After making these various examinations, I shook my head and looked as solemn as I could. "Well," he said, doctor, what do you think of my case by this time?" "Well," I said, "I think your case is a very dubious one." You ought to have seen his countenance light up; his eyes began to fairly sparkle; said he "Do you now think you can cure me?" "Well," I said, "I am very very much afraid I can't ." His face was still brighter than before,--actually a smile beamed forth upon his countenance when I told him that probably his case was incurable. Then he said, "Do you have any hopes at all of my being curable?" "I can't say that I have," I replied. Well he then fairly laughed outright, he was getting so happy and so joyous with the idea that his case was hopeless."Doctor, did you ever see a case as bad as mine before," said he." I said I didn't think I ever saw just such a case before. "Well," he said, "I thought you didn't understand my case the other day, but you didn't take time enough to look into it; I am glad that you have taken time to look into it thoroughly, and I think you understand it now ." Now there was a man that there was no use in trying to cure, because he took delight in being a hard case; he wanted me to think of him that he was the

hardest case that I ever had,--the most incurable case that I ever saw. I told him as much as I could in that line, so as to comfort him and make him happy, for I saw that that was what he needed to make him happy. I knew there was nothing that would cure him under those circumstances,--I knew there was no use in trying to cure him--so we kept him here for awhile and made him as happy as we could. Whenever I saw him I told him about the extraordinary features of his case, and he went away happy with the idea that he was a peculiar case and an interesting case. A lady once said to me, "Doctor, did you ever see such a case as mine?" I told her I thought I had. "Do you really believe that?" said she. "Yes," I replied, "I think I have seen quite a number." of such cases." "Why," said she, "my last doctor told me that I was the most interesting case he ever saw,--and I think he was a very good doctor." That taught me a lesson. Then I get that sort of a case, I say to them, "Sir" or "Madam," as the case may be, "Your case is a very interesting case." That makes such people very happy; it makes their eyes shine to think that they are very interesting cases.

Now it is very singular, isn't it, that people should take such a perverse view of their cases. One lady had been with us about four weeks, and had been in to see me about every day, telling about how bad her case was, and how bad a place the Sanitarium was, and telling about her trials, how bad a man her husband was, etc., and I finally got tired of hearing her story, and I finally made up my mind that I could not endure it any longer, so I sent for her husband to come and take her home. When he came, he asked what it all meant. I told him that I was afraid I couldn't cure his wife. He then asked me what I would advise him

to do. I said, "I would recommend a change of climate." I hadn't thought about the next question which would be asked me, so I was rather taken unawares. "Well, doctor," he asked, "what climate would you recommend for my wife?" I knew that different climates would do her no good, and finally a bright thought struck me, and I looked at him earnestly and soberly and said, "Sir, I am afraid there is no climate but Heaven that is exactly adapted to your wife's case." He looked down to the floor and reflected a moment, and then looked at me with tears in his eyes as he held out his hand and said, "Doctor, I believe you are right." Now that woman didn't want to get well; she just enjoyed being sick; she enjoyed attracting attention; she had a morbid desire for sympathy, and so she exaggerated all her symptoms.

I remember a case we had with us a number of years ago,--a lady who came here from Philadelphia. She had been under the care of Dr. S. Weir Mitchell for a year and a half and got worse all the time, and she was determined to get worse here, and I was determined that she should not .. She was one of those wonderfully interesting cases that means to have a visit from her physician every day,--and I could do that in those days, for I didn't have as many patients at that time as I do now. I went to see her every day, and I never went to see her once but what she had a fresh nosegay of symptoms,--a whole set of bran new symptoms to tell me about. She thought it was as much her duty to have a set of bran new symptoms to present to me every time I called, as it was to say "Good Morning; so she had a fresh nosegay of symptoms ready for me every time I went to see her. She thought I was looking for symptoms, and that fresh symptoms would keep up my interest in her case, so she had bran new symptoms for me every

day. I have always been sorry I didn't have a stenographer present to take all those symptoms down,--they were very interesting.. Finally we succeeded in getting her onto her feet and she walked 3 1/2 miles a day. I finally remarked to her that I was glad to find that she was able to walk so far, and that she was getting well,--said she, "Is that so!" I am sure I am feeling bad." The next morning she was completely paralyzed when I found her,--she couldn't turn over in bed. After that time, for thirty days she only made just one movement,--she turned over once in twenty-four hours--she made one revolution a day, like the earth; the nurse rolled her over on one side in the morning and then she would roll her over on the other side at night. She also stopped eating; she didn't eat unless she was fed by the nurse. You can imagine the nurse and I had a lively time with her. for the next six weeks. The next time I got her on her feet I sent her home. I had another very interesting lady patient at one time,--a patient that I thought was not very anxious to get well. She came here looking rather thin, and I noticed there were great black circles round her eyes, and her eyes looked sunken in her head, so that she looked very wretched and miserable. But in a little while she began to gain in flesh although she could not be lifted out of her bed into a wheel-chair She kept gaining flesh, however, and I began to feel suspicious, because she always insisted that a certain young man should lift her every day when she had to be taken out of bed into a chair. Pretty soon that young man complained to me that his back was getting weak; that his burden was getting too heavy for him, and he wanted a change. The woman looked the picture of health with the exception of her eyes, and the young man who carried her food to her said he had to carry double trays for her. I hardly knew

what to do with this case. She kept complaining to me about the sleepless nights she passed, and the result upon her eyes, etc. One day, as she passed into my office a lurid suspicion flashed into my mind and I asked her to permit me to examine her eyes. While pretending to do so, I dropped something into one of them that made it smart. "Oh!" said she, "what did you do to my eye?" I then dipped a cloth in water and secured that eye until the black circle disappeared. I was cruel enough, however, to let her leave the office with the other circle untouched. After that, it was interesting to notice how gradually that circle faded out,--like a gradual recovery. I found out afterwards that this lady had produced these circles by painting her eyes every morning with indigo. I have met several such cases, in which persons have made themselves look haggard and sick and said in a similar manner.

In order to get well quick, people have got to make up their minds, as I have said, that they want to get well, in the first place. That is absolutely essential; they must want to get well more than they want anything else in life. Now if a person wants to get well bad, and quick, he will go about the business of getting well in just the way we should start for the Klondike country. A gentleman told me the other day that there would be a hundred thousand people trying to get into the Klondyke next summer, and there are people just now who are bending every energy to get into the Klondike. You have heard about what privations, sorrows, griefs and dangers and difficulties people encounter in order to get to the Klondike country, into the unfriendly region of the Arctic Circle. Much money has been squandered in getting there, and many have died in getting there. I suppose at this moment there are people who are freezing to death on the road from Daw-

son City to the Klondike.

Now if a man wants to get well, he must go to work in just about the same way, and after the same sort, and with the same earnest ambition as he would if he wanted to get rich, and then I tell you there will not be very much trouble about it. There are really very few people who can't get well. We have found out here that even incurable people get well,--the majority of people who are pronounced incurable could get perfectly well if they would go about it in a genuine businesslike way.

But sick people do not usually go about the work of getting well in that way; they go about it in a desultory, half-hearted lukewarm way. As an illustration: I remember a gentleman who came here for treatment some time ago, and he said, "Doctor, now when I have come here to get well. I want you to examine me and see what is the matter, and then I want you to tell me just what to do, and I will do it,--if it is to eat saw-dust pills--if you tell me to eat 'em I'll eat 'em; and I don't care how long it takes I will stay here till I get well,if it takes six months or a year, it don't make any difference,--I am going to get well. If you will just tell me what to do,I'll go right at it, and I will stick to it and stay here until you say I am well enough to go home." Now that is just what that man said to me,--in fact, twenty different men have said the same thing to me. In just two weeks that man came into my office and said, "Doctor, I am getting well so fast that I think I can come now and get well with home treatment. Don't you give me a few suggestions and then I can buy a battery and a book and some health foods and go home. My business is so urgent that I feel I ought to be at home attending to my business, and if you will give me a few directions and let me have a

book and a battery, and I think I can get along at home all right, and I will be much obliged to you." Now I hardly knew what to say to that gentleman. Two weeks before that he wanted health so badly that he was willing to sacrifice six months or a year of time and eat saw-dust pills,--and here he was anxious to go home and attend to his business; health was a matter of small consequence with him now, compared with his business. I expostulated with him and told him I didn't think he could get well at home. But he said he thought he could get well at home,--said he, "I find myself better each day than I was the day before, and I am sure it only needs time to cure me." "Time to cure you," said I,--"Time is the great Destroyer. Did you never see a picture of old Father Time on his travels, like an old country doctor who is making his calls and seeking to "cure" some one? Old Father Time has a scythe to mow people down. Time does not cure,--Time kills." He said, "Of course that sounds all very well doctor, but my business is pressing and I think I must look after my business. I have been sick now for several months and my business has been very much neglected, and I feel that it is a duty that I owe to my family to go home and look after my business." "Well," I said, "You came here two weeks ago, and you said you were willing to spend six weeks or a year in getting well. Now health is the most important thing in life, and yet, because you have gotten a little start in the right direction you think it is so easy a matter to get health that you can complete the work of getting well at home." That is a delusion that seizes almost every one who comes here: After they have been here about six weeks, --or even two weeks - -sometimes only one week: the moment a man begins to get well, he thinksthe thing is just about done. When a

man sees the open grave yawning before him and feels that he is about to step off into the abyss, he is ready to do anything; that he can to be snatched back from the contemplation of that awful picture,--if he can have that picture hidden from his eyes and have the picture of Hope held up before him--he is ready to sacrifice everything. But the moment you get that man started in the right direction, and before he has travelled ten steps, not having the awful spectacle of a yawning grave before him and the vision of death right before his eyes, he is like the oyster who hides his head in the sand and does not appreciate the fact that his enemies are close behind him. He stood, a couple of weeks before, with one foot in the grave,--and he is only a couple of steps from it now. And now, because he is not looking into the graveyard, he is satisfied and thinks he can go home and get along just as well as when he was there and under the most thorough treatment.

I have very often noticed people when in the process of getting well, and thought of an ~~picture~~ experience that I ~~saw~~ had in Italy some years ago,--~~of people~~ climbing up the side of Mt. Vesuvius in the deep scoria and ashes. When one is climbing up this mountain it seems to him as if he would slip back three steps while climbing up two, and from my own experience I believe it is the hardest climbing in the world; there are ashes,--nothing but ashes, ~~and nothing but ashes,~~ not a thing to cling to or to take hold of. One hot sultry day I was climbing up this mountain and a young fellow came along with a rope in his hand, and when he passed by me he threw the rope over his shoulder and made a sign to me to take hold of the stick that was attached to the rope, with the intention of pulling me up. At the same time another young fellow came up behind and gave me a friendly push behind,

at the same time hinting that he would keep on assisting me in this manner for a dollar or two after I got to the top. I thought that would be nice, but I had a little ambition to climb to the top without any assistance, especially as I had just before that seen a man being carried up the mountain in a chair, one man having hold of each leg of the chair. I passed that man and also a couple of others who were being helped along, and I thought I would go up alone. I then thought to myself, "That is exactly what we are doing at the Sanitarium: We take some cases like the man in the chair,--we have to carry him up; other cases are like like those travellers who have to be pushed and pulled up. Now this work is uphill and not downhill work. Now suppose the man in the chair had said, "I am getting along so nicely that I think I can get up the rest of the way alone,"--then suppose he jumps out of his chair--he would go to the bottom. Suppose the man who was being pushed and pulled up the mountain should think he could go up the rest of the way alone and should dispense with his help,-- he would soon find himself short of breath and helpless, and he could not help himself, and he would also go to the bottom of the mountain. That is just the situation of the sick man who is going up the hill of health. After he gets up a little ways he thinks he is getting along so well that he can get xxxl along alone,--that he can lay aside all his helps and go on up to the top of the mountain of health. He is the most mistaken man in the world--it is the greatest possible mistake. We don't get health unless we work for it, unless we struggle for it, unless we live for it. The man who has been sick for a long time and expects to get well must do works of supererogation, so to speak. Some of you perhaps know what that means. Our Catholic friends say that if a man has been very bad that the only way

to atone for it is to be very good,--extra good; that it is not only to be as good as he ought to be, but that he must be extra good; that he must do some things that an ordinary man does not have to do; that he must be extraordinarily good, and that only by doing works of supererogation can he ever hope to atone for his evil deeds. I don't know whether that is good theology or not, but I know that it applies first rate to physiology; I know that a man who has been neglectful and careless in his habits of life, and, as the result, has gotten into a sick and infirm condition,--the only way that man can get well is by doing works of supererogation heavenward, and he must keep on doing this from day to day for a long time.

And that is why you are here in this Institution. You are here to be trained into health and into such a condition that it will be easy for you to do works of supererogation. But many patients find it easy to do other works of supererogation, but they soon get tired of being extra good healthfulness. Some time ago a gentleman said to me, "Doctor, a lady friend of mine has been telling about a lady friend of hers a lady who keeps a restaurant down town,--her name is Webb." I have often heard of Webb's Restaurant, but I never saw the lady, but I hear a great many voices coming from that restaurant. This gentleman said to me: "Mrs. Webb sent word to me that she would like to have me tell Dr. Kellogg the next time I see him, that you and she are partners." "Partners!" said I, "how is that? How am I a partner with this restaurant keeper; that is just the business that I wouldn't want to go into, and how is it that this woman can make out that I am a partner with her in the restaurant business?" "Well," he replied, " she says that you and she play right into each other's

hard all the time; that you take people that have worn out their stomachs eating dough-nuts, oyster stews, devilled crabs etc., until they can't eat such things any more, and than they come up here and you fix their stomachs up, and just as soon as they get them fairly fixed up so they can eat some of these things again, they come down to her place and she gives them 'a good square meal, and that cripples their stomachs again, and than they go to Dr. Kellogg and he fixes them up again, 'and than they come down to me' (says she.)' and I upset them again, and so we are playing into each other's hands all the time .'" Now that was a very sagacious women; she found that I was very useful to her; she saw that persons couldn't digest her foods, and that they come here and we patched them up. ~~The restaurant business would run out if it were not for the doctors who patch up those who patronize the restaurants.~~ The restaurant business would run out if it were not for the doctors who patch up those who patronize the restaurants. One doctor sent a lady here from Chicago,-- she was a widow, and she came here a day or two ago. She had been living on a hotel diet,--and this is the principal thing that is the matter with many of our patients-- hotel diet. Her physician sent her here to get rid of hotel diet, as what she needed was plain living.

Now the trouble with many patients is, that they are only half-hearted in the matter of getting well, so it is very easy for them to fall into condemnation, and every now and they drop out of the road for a while. I remember one time when I was travelling on the Alps. I hired a man and team to take me over the mountains. We started at the little village of Meining (?) to go up Mt. Blanc. On the last day of our trip the drive stopped at every

inn (and there were many of them), in order, as he said, to give his horses something to eat; but while his horses were eating he would go into the inn. The horses didn't seem to have much of an appetite for eating, but he seemed to have a tremendous appetite for drink, and he had a very decided flavor of "elixir pro," as Dr. Oliver Wendell Holmes calls it, indicating plainly that it was not hunger but thirst that took him into the inns so frequently,--he dropped in so frequently that I began to fear that we would never get to the place where we were going. I know when a man is going into a restaurant, that he is falling ~~down~~ into temptation. So it is with many in all classes,--they are falling out by the wayside lured by various temptations. Because of their appetites they are doing what their conscience and their reason tells them is not the right thing for them to do. I suppose that the restaurants in town are patronized to a considerable extent by Sanitarium guests. We have not on our tables some of the things that you like and which you get when you are at home and so some of our patients think it is a good thing to drop into some of these places and regale themselves out of some of the old fleshpots of Egypt,--the leeks, the garlics and the onions and other things which are tabooed at a table that is prepared in accordance with the Sanitarium and with scientific principles.

Now a person who allows himself that kind of thing, is not in dead earnest to get well; he is only half-hearted about it,--and such a person is not going to get well fast, that is sure. I remember a patient that we had some time ago who was falling into temptation every time he would go down town. He would get a cigar to smoke, and he knew it was not good for him. He had a weak heart,--a tobacco heart; he knew he had to stop using tobacco

in order to get well, and yet he didn't have the courage or the resolution to "swear off," as he said he was going to do. One day, while passing a big strawberry patch and smoking a cigar, he said, "Now this is the end of this thing, and I am going to stop it and so,--here goes!" So he threw his cigar over the fence into the strawberry patch. That was in the morning. Some time the next day very early he was seen walking by that very strawberry patch, and he looked over that fence more than forty times to see if he couldn't get his eye on that cigar. Finally after daylight came, thinking he would not be seen if he climbed over into the field, he climbed over into that strawberry patch and crawled round on his hands and knees looking for that cigar; fortunately he didn't find it. Now just think of that slavery that binds people down to appetite,--what a terrible slavery that is,--what a terrible thralldom is it that thus binds people to appetite.

Now one never gets into such a slavery of appetite as that for natural food,--he never gets such an appetite for bread--one never gets into such a state of abject slavery for wholesome and natural foods. But such appetites are acquired for things that are unnatural, such as mince pies, mustard, pepper, pepper-sauce--people get addicted to such things to such a degree that they positively could not get along without them. But I never knew anybody to get so addicted to good, wholesome foods,-- I never knew any one to get so addicted to any one article of wholesome food that he could not possibly make out a meal without it. But there is many a man and woman who cannot make out a meal without coffee, and many who cannot make out a meal without tea,--just can't make out a meal without a cup of tea, or coffee--would rather have it than all the rest of the meal, ~~if she couldn't have but one~~

Now this sort of slavery is something which the patient must escape from if he wishes to get well; he must turn his back upon all things that are evil and unwholesome,--he must "lay aside every weight," as the Apostle says," and run with patience the race that is set before him." But what sort of race is it that the sick person or the invalid is running? It is a race away from disease; it is a race away from death; a race up to the Pisgah's top of health. Now isn't that a race worth running? I tell you my friends, it is worth while for one to deny himself in running such a race as this. Think what the ancient athletes used to do in order to win earthly honors. When a man was preparing for the Olympian games he subjected himself to the simplest fare; he ate nothing but barley cakes and water with a little honey,-- no meat, no condiments, no confectionary. No self-denial was too great for those who were preparing themselves for those games. And yet they lived in a sensual age; they lived in a licentious age. Still, during their preparation for these games they lived pure lives, continent lives, chaste ~~and pure~~ lives; they were moral and pure in all their conduct so that all their energies might be accumulated for the effort which they needed to make. Now my friends, just think of that age and of that people, working for life for a preparation for the prize set before them,--and yet "all that a man hath will he give for his life." But at the present time and among civilized people, you ask a man , for instance, to give up his pipe or cigar,--"Oh! I couldn't get along without my smoke; I must have my smoke after breakfast; I couldn't get along without that. " The lady who complains of indigestion must have her coffee although it is the very thing that caused

her indigestion, and the very thing that should be cut off. But she says, "I don't see how I can stand it without my cup of tea in the morning; I don't see how I can ever get along without it." Here is a lady who has been conforming to fashion by wearing improper dress until her stomach is very much out of place, her liver is out of place, her kidneys are floating, or out of place, and the heart is almost out of place, and it seems impossible that the poor woman could live,--and here is the real foundation of all the trouble of which she complains--her side aches, her back aches, she has pains and neuralgias of all sorts. This poor woman is told that she must conform to the rules of health in relation to her dress,--"Oh! "she says, "how can I do it,--how can I do it?" She says, "All my friends say that I must do this, but what will society say? I must conform to the usages of society." In this way health is sacrificed for the cigar, for the cup of tea, for what the world will say. I remember one lady who was in the city and with whom I expostulated in regard to wearing a dress which did not admit of proper breathing, showing her, at the same time, how to take a good deep breath. Said she, "Is that the way I would breathe if I wore a healthful dress?" I told her it was. "Oh! I'll never breathe in that way in the world." "Why not?" I inquired. "Why," said she, "all the girls would laugh at me and say, 'She breathes just like a man." She was bound to breathe in that way if it killed her,--she was going to be fashionable, she said, and she would breathe in that way, if she died doing it.. And millions of women have died just because they had not a chance to breathe. I have heard of a quack doctor who reported a case in which

the patient "died for lack of breath." Now it is a positive fact that a great majority of women in this country die for lack of breath,--for lack of breathing. And yet there are many women who do not care enough for their health to assert their independence and dress as a woman ought to dress and breathe as a woman ought to breathe. A small and very ignorant boy was once called upon by his teacher to write a composition about "Breathing." It was his first composition, and he wrote about as follows:

"B R E A T H I N'

Breath is made of air. If it wasn't for breath we couldn't live a week. Breath keeps the life going through the nose while we sleep. The breath has a pizen in it; it is the pizen of mad dogs. This pizen is called 'Carbonicide.' Once there was a carbonicide got into a Black Hole in Calcutta and killed a hundred and forty Englishmen before mornin.' Gurls can't breathe much, cause their corsets squeeze their diagram. If I was a gurl, I would rather be a boy, so I could run and holler and have a big diagram."

Now this boy had some correct ideas about physiology, at any rate. He had noticed that girls couldn't run much; that they couldn't "holler" much; that there was something the matter with their breathing apparatus.

Now it is a strange thing that civilized women will live a whole lifetime without discovering that there is anything wrong about their dress; that they will conform to a fashion that is so artificial, perverting and disease-producing. It would seem as though any intelligent, sensible person ought to discard the fashionable dress the moment its results are presented. You

cannot get a Chinese woman to wear a civilized woman's dress. She will bandage her feet until she has to walk on the tips of her toes and wear a shoe only three or four inches long,--just big enough for her big toe, and yet that woman would not abuse herself to such an extent as to constrict her waist. A Chinese woman once said to a missionary who was laboring with her for bandaging her feet,--"Missionary ladies are more wicked than I." "Why," asked the missionary. "Because you bind your waist, while I only bind my feet; the feet are of no account, but the life is in the waist." True, the life is here,--the life is here; so that this Chinese woman could not be convicted by the missionary that she was committing sin by binding her feet.

Now if you desire to get well, you must resolve that you will do everything necessary to get well; that there is no sacrifice of your accustomed ways of doing things--that there is no sacrifice of things that you like and which you are accustomed to indulge upon, if they are not in conformity to the laws of health--that there is no sacrifice of these things that is too great to be made for the sake of health; if you want health as bad as that you can get it. If you want health as badly as some people want wealth, you will get it.

There is nothing like determination and will in getting health. I shall never forget one circumstance in illustration of this principle. I told the wife of one of my patients at one time that I thought there was no hope for him; that I thought he could not get well, and he got well because he was determined to get well; he was determined that he would not die,-- he would not down at the bidding of disease; he was determined that he

would not yield to disease. But there are many people that lie right down and allow the demon of disease to come and plant his foot upon their necks and trample them down into the dust; they don't seem to make any resistance. . Now there is a tremendous amount of potency and power behind resistance to disease. The people who are practically incurable,-and almost the only people who are incurable--are the people who do not want to get well; they are people who do not care enough for health to set their eyes toward it with the conviction that it is a necessity and that they must have it. Some of you feel in that way, I am happy to say,--and you are going to get well. I have seen many a woman get well whose case seemed to be utterly hopeless, just because she was determined to get well.; that nothing should stand in their way to recovering her health. The mother wants to get wel for the sake of her children andfor the sake of her family. The father wants to get well for the sake of those who are depending upon him. For such reasons as these there are some who are interested in health and in getting well, and who will get well, while others see no object in life,--have nothing to live for, no interest in life--and they will certainly go down to death.

So my friends, I repeat, you must determine to get well; determine to put forth every effort in your power to get well; determine that you will exert every possible effort to acquire health. Discard forever everything which it is necessary to sacrifice for health; resolve that you will make every ~~necessary~~ exertion necessary to get well; that when you find the right road you will not turn away from it,--that you will not turn your back upon health when you see it before you. Suppose a man were going to the Klondike region,--he goes there and strikes a rich vein of gold and is digging out his thousands of dollars in gold-

breathing dust every day. Suppose he thinks of his wife and children at home and gets homesick,--what do you think he would do? Do you think he would stop work and go home? No. He keeps at work, comforting himself with the idea that he is going to get rich, and that he can then furnish his family with every comfort, send his boys to college, take a trip to Europe, etc. He satisfies himself with the good time coming; he won't yield to homesickness with such a prospect before him. Now a man who is working in the mine of health, and has struck the right vein,—he finds health pouring into his veins every day; he wakes up in the morning and finds himself a little better every day. Does he say, "I will give up working in this lode,"-- does he say that? No. Does he say, "Doctor, I am getting well so fast that I can take a book and battery and go home and get well,--don't you think time will cure me? Don't you think I can be cured at home as well as here?" No indeed. Suppose you see a building in the city going up little by little, being shored up with jack-screws,--one screw won't raise it alone--there are several of them placed under the building. Now suppose this building should say, "I am going up so fast that I don't need these jack-screws any longer,--take them away?" You can imagine what the result would be, if such a course were pursued.

Now the patient is here in the Sanitarium where everything possible is brought to bear upon the attainment of health,--baths, massage, electricity, lectures--everything possible to help the patient, together with the daily toil and counsel of the doctors upon the question of health. Now a man under these circumstances

has no more evidence that he can go home and get well than the man who is digging gold in the Klondike has evidence that he can go home and get rich there.

It is not time, but what is done for you that cures you. When the doctor tells you that it will take six months to cure you, he don't mean that the six months' time will cure you,-- it might bury you, or it might make you incurable; he means all the forces and efforts that can be brought to bear upon your case-- all the science of the institution concentrated upon your case during six months of treatment, so that at the end of that time you may be considered well. The friend of a patient in the Sanitarium some time ago asked me how long it would be before the patient would be recovered from her rheumatism. I said she would probably be well in about six months. The patient began to get well right away, and in the course of two or three weeks she was wonderfully improved and much better, and wanted to go home because she was getting well.. Now when I said she would get well in about six months I didn't mean that she would simply get over some of the symptoms of rheumatism,--the swelling of the joints, etc. I meant that she would get so well that she wouldn't get sick again; I meant not only that she would get out of her present rheumatic condition, but that she would get so far over her rheumatic condition that she would not fall into that pit again right away, because , she would otherwise be in a condition similar to that of a man who is walking along the road and suddenly steps down through an hole in the roadway. That is what disease does. Now a patient, in order to get well, must be gotten outof the hole which he is in, and placed upon terra firma, and he must be so reconstructed that he will keep out of the hole; ~~that~~ he will be made

strong enough to keep out of the mud and mire of disease.

Getting well is like getting out of a well that is a hundred feet deep, into which a man has fallen. You hear him calling for help and you send a bucket down after him. He gets into the bucket and you turn the windlass round and round. You hear the windlass creaking, you look down into the well and call to the man and you can hear his voice in the darkness; you know that he is nearer the top because his voice sounds a little louder each time you hear it, so you know that you are saving the man. By and by you see the form of the man in the bucket. Now suppose that man could look up and see the light shining at the top and hear you talking to him and cheering him up, and should say: "Now I am coming up so fast, why can't I get out of this bucket and get up the rest of the way without help?--I can do it just as well as not." He jumps out of the bucket and goes to the bottom of the well again. That is what happens to many people who come here to the Sanitarium for treatment,--and , I am sorry to say, that is the reason we have no more patients here.

Why, my friends, just think of the principles and the advantages we have here, and the ability we have with our improved methods, to cure incurable people,--those who could not get well under other circumstances. We ought to have ten thousand people here instead of three or four hundred, --and there is no doubt we could have them if we could induce people to stay here long enough to get well. If we could do this for three or four years to come, the town wouldn't hold the people who would come. But the difficulty is that people stay with us only long enough to get started on the road to health ,and then some inducements call them home,--and away they go. And when they get home, they very soon fall back into their old habits of eating and drinking and working ,

and very soon they relapse into the old conditions. And so people say of this institution that it is a humbug, like everything else, for instance, it is like a mineral spring which causes you to feel better, and then you go back home and relapse again, because you didn't get strong enough to endure the hardships and the emergencies of ordinary living. The patient must be not only relieved of his disturbance,--he must not only get well of this—but he must get far enough beyond that condition that that particular disease will not be ready to break forth at any moment.

For a last word, I want to refer again to the case of the man who has fallen into the water, which I think illustrates the case of the chronic invalid very well. The chronic invalid begins to get better. He is like a man who has fallen into the water. You throw out a grappling iron and get holdof him and begin to pull him up. You pull him up and pull him up until you get his head within six inches of the surfeces. He feels no better and is ready to give up,--he feels no better, because the water is above his head. Now he has come up so that the water is only half an inch above his head, but he feels just as bad as ever; he can't get any more air than he could when he was at the bottom; he is just exactly as bad off as though he were at the bottom, so far as feelings are concerned, nevertheless his head is coming up and in a second more it will be out of the water. Now this thing very often happens: A patient says "I have been here six weeks, and I am no better. The doctor looks at him and he sees that his eyes are brighter, his pulse is firmer, and the examinations of the stomach fluids etc. show that the man is being radically improved and ~~xxxxxxxxxx~~ ovated and transformed,--he is getting better; he is coming up; his head is, as it were, only half an inch under water.

Now the doctor knows that in a week or more this man's head will come up above the water and come into the free air of health again, and that he will then begin to feel something of his old time vigor. The doctor knows this, but the patient does not, and he says, "I am no better, for I don't feel any better." "But," the doctor says, "you are better." "Well," says the patient, "if I am better why don't I feel better?" Now a man feels just as bad when his nose is under water as he does when his whole body is under water. But to-day his nose is under water, and to-morrow his head will pop out of the water,--and then, if he lets go, he will go down, down again. Now this happens to more than half the people who come here for treatment,--they do not remain here long enough for those tissue-changes to take place which are necessary to transform the patient and make him a new man again. And this is necessary; hence our treatment is not ~~designed~~ for the antidoting of diseases or the curing of maladies, but for the purpose of healing the sick man.

Now, as I have said, this man whose nose is under water finally gets his head wholly out of the water, and he says, "Oh, isn't this glorious,--to see the sun shine, and to breathe the fresh air once more! I am not struggling as I was before, and I feel as well as I ever did, so I guess I will let go of the rope and go alone." He lets go of the rope and goes down into the water again. Now probably a quarter of all the people who come here,--and I don't know but more--conduct themselves in just that way. Now the man who has his head or nose out of the water is in the most imminent danger,--it only requires a little more ruffling of the water to send a wave over his head. And that is what happens to a patient who is in this condition, every time he has a little

extra task, every time he has a family jar, every time he has a little disappointment, every time he has a little complication in his business, --anything of this kind is enough to send a wave over his head, and there he is,--over hishead in the water again!

Now my friends, it is necessary to do something more than to just get the head out of the water. You must get the drowning man onto the shore; and, if a man is sort of addicted to falling into the water you must get him away from the water,--miles away, if you can. You should, if possible, get him onto some mountain top, or some sightly hilltop where he can look out over a beautiful landscape and have plenty of fresh air, and where he can have plenty of encouragement and attention, and where he can be kept away from his previous danger.

I want to say this word in conclusion,--that if you want to get well, go right about it, and make a business matter of it. Think health and work for health,--exercise for health, everything you do, do it for health's sake, and you will get it.

SANITARIUM PARLOR LECTURES. (Feb. 3, 1898.)

Some Popular Fallacies in Relation to Things Medical.

J. H. Kellogg, M.D.

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Ladies and Gentlemen; I hope you have all been out in the fresh air to-day; if so, you have got something better than anything we have inside. There are no baths, nor tonics, nor treatments in the house, that equal fresh air. Dr. Tanner lived nearly a month and a half without food, but it is impossible to live more than two weeks without water, and a person cannot live more than six or eight minutes without air. Cold air is the best of tonics.

Now I was thinking as I came along, as to what I was going to talk about to-night, and determined to describe some Popular Fallacies in Relation to Things Medical. One fallacy which is very popular and very pernicious in its consequences, is the idea that a man who has weak nerves needs a tonic. Now if people only knew--if men and women everywhere only knew the real character of tonics, the pernicious character of tonics, and that the use of tonics means ultimate bankruptcy,--and it does mean bankruptcy, for a tonic is a thing that simply draws upon the future capital of the system, and if it was believed, thousands of people would be saved every year from complete and utter physical ruin.

What is a tonic? A tonic is simply a nerve-fooler--a thing that makes a man feel better when he is no better. That is the proper definition of a tonic. That is my definition, at any rate. A tonic is a thing that makes a man feel better when he is no better. Why does

it make a man feel better? simply because it excites his nerves and creates a nervous activity which is mistaken for increase of strength.

Now here is a horse that is tired, and just wornout and weary, and is just staggering along the road: The driver applies the whip to that horse, and for a little while he behaves very vigorously, unless he is absolutely exhausted, and he will prance along for a few minutes so you would think he was just out of the stable and was a frisky young colt, whereas, he is a poor, tired-out old stager. If you did not see the whip you would think he was so fresh and vigorous that you could hardly keep him in the traces, but when you see the whip, then you understand it.

Now a tonic is nothing more nor less than a whip. What evidence have we of that? If a horse is whipped, and, under the influence of the whip, is made to perform more labor than he ~~xxxxxxxxxxxxxxxxxxxx~~ has the spontaneous ability to perform --than he feels naturally disposed to do, what is the effect upon that horse the next day? He is all used up. A man that keeps a fine horse is very careful not to loan him nor allow a person to drive him, that does not appreciate a horse's feelings. A man does not like to have a tonic ~~xxxxxxx~~ administered to his hhrse. A man that has a very fine horse said to me the other day "Doctor, whip never touched that horse," and he said he would thrash the man who whipped him. He didn't need whipping, for he is energetic enough, and he knows enough to know when he has done enough, and he knows enough to stop. When my horse doesn't go I know he has done enough and that he has done all that he ought to do, and that it is time for him to stop, and if I ~~xxx~~ whip him, and make him do more work, it is simply

abusing him. Now when a man feels that his nerves are weak, and he says "Doctor, give me a tonic," it is the same thing as if he had a good, faithful, energetic horse, that had done as much work as he ought to do, and he says to a neighbor, "Come and whip this horse for me. I will get you a rawhide, or a goad, or an extra sharp kind of a whip, with which you can stimulate this horse and get more work out of him." That sort of a man doesn't keep a horse very long, for he gets to be a poor broken-down horse, very soon. Sometimes a fine horse, under the influence of the whip, can be spoiled in twenty-four hours,--in just one trip's over-driving. Does anyone know of such a case? If so, please raise your hands. (Hands up.) I see there are hands up all around the room, of people who know this to be the case. Will you tell me your experience, sir?

(A patient:) " I had a horse at one time, that I took out of the breaking plow, and drove seventy-six miles on a visit to my brother's. Now fifty miles, I consider, is a long drive for a farmer's horse. This horse was one of those horses that the Doctor has been telling about, that had the sense to know when he had done enough, and he did not need the whip, at all. For fifty-five miles he would not hear the whip at all, but in the evening, when I still had twenty-one miles to go, I thought that if I touched him up a little he would move up a little faster. I drove him that seventy-six miles, after taking him out of the breaking plow, in ten hours, stopping two hours for rest. When we got there, I fed him, but he would not eat, and he lay down to hay, and the next morning, and for two years after, there were puffs on his legs in front, and he was lame, off and on, for over two years, and was never so good again." I would not do it again for the price of the horse."

DR. KELLOGG. Well, here is a instance of a drive that spoiled a horse. Now I tell you there is many a man, and many a woman, that, under the stimulus of tonics, have, in one trip, spoiled a good man or woman for a whole life-time--just in one trip. It may be that it was a season of enjoyment. It may be that it was a winter's season of having a good time. Generally fashionable people start off to the watering-places to spend the summer, and come home to the cities in the fall with rosy cheeks and snapping eyes, and by and by the winter festivities begin, and dances, and balls, and sociables, etc., and along about this time, when the gayety is at its height, about January or February, they begin to come to the doctors' offices for tonics. The bloom is all gone from the cheek, and the snap and sparkle from the eye, and they begin to beg the doctor to give them a tonic. "I must go to a ball to-night, and you must give me a tonic, because I want to be bright, and I want to feel well, and I must keep up my position." Now that is just laying on the whip. Doctors are all the time submitting to the entreaties of people to keep them up by the use of tonics. A man get in business, and in the whirl of business he begins to find himself lagging behind: His brain won't work. He has to cudgel his brain, and it won't go then. So he goes to the doctor, and says "Doctor, I must have something--I am prostrated; I am getting exhausted; I must have some thing to pick me up; I want a good tonic." And the doctor gives him a tonic, and all in the world that tonic does, is to whip him up to get a little more energy out of his store. Did it make him any better? No. Did this whipping help this man's horse? No: He would not do it again for the price of the horse.

A tonic makes a man feel better, and it deceives him with the idea that he is better and that he is stronger than he is,--it deceives him with the idea that he is stronger than he really is. The doctor gives him a tonic--three little pills, not larger than the head of a pin--and he is to take one in the morning, one at noon, and one at night,--three times a day. Now how is he going to get any strength out of these little pills ? If we could get power and energy concentrated into pill-form, think what a convenient thing it would be to run a train of cars with or to run mills with, or dig mines, or run stamp-mills, with. If we could get energy boiled down to such a form as that , it would be a very convenient thing to use in the Klondike, to pull sledges over the mountains with. It is the sheerest nonsense. There is only one source of energy in this world for a man, and that is in food. He must get it from the same source that the locomotive does. You would not expect a locomotive to do any more work by putting some little strichnea or quinine pills into it. The human body is an engine from a physical standpoint,--it is simply an engine--a machine for developing energy, and transmuting energy, and taking the energy of the food and converting it into muscle energy, brain energy, and gland energy, and so transforming it. Now when a man takes some little sugar-coated pills for a tonic, he gets just as much good as there is sugar in the coating. It is just the sugar on the outside of the pills that will benefit him. When we take pills, if we were to dissolve the sugar and drop the rest of it into the gutter, it might do a little bit of good, but if you swallow the whole pill it will do a little bit of good and a large amount of mischief. Why does it do mischief? For the same reason that there

is mischief in this gentleman's whip? For the same reason that there was mischief in the sting of the whip. Under the sting and the stimulation and irritation of the whip, that horse was compelled to expend more energy than he was really able to expend. That is the reason

Energy is stored up in our bodies as though it was in two tanks. (Diagram.) Suppose there was a little pipe down here, and a little water-wheel, and the water drops down and runs the machine. Now if I want to get all of the water out of the tank, I would put this pipe right at the bottom of my tank, so that the water would all run out. Suppose that my tank was filled with water, and as the water runs out the mill runs, and I let the water all run out: My wheel stops--my mill is dead, isn't it? Well, nature doesn't want our mills to get into that shape, so nature made special provisions for the purpose of saving our lives, and instead of tapping our tank exactly at the bottom, nature has provided that it shall be tapped along up here toward the top, so that it is impossible for us to run our tanks dry. We cannot get all the energy our of our bodies if we try ever so hard. Nature has so provided it that when the energy is consumed down to a certain point we cannot get any further,--it has an automatic sort of an arrangement so that the thing must stop. It is just as though we should cut an electric light wire, or stop the dynamo--if you were to cut an electric light wire here somewhere, the lights would go out, because the current is stopped. If I should turn that little switch, the lights would go out, because the wires are disconnected, and the current is interrupted between the dynamo and this light. There is a current passing around, and being expended in the light, and if I cut the wire, that moment there is no further expenditure of energy.

Now the brain is the battery of the body: It is the dynamo that keeps it in operation. Every little brain cell is a little storage battery, and the energy is stored up in it. Suppose this, if you please, will represent a brain cell. (Diagram.) There are a great many branches here; these subdivisions,--there is a long line that runs out and that has arms--sometimes as many as twenty of them--they are very numerous. This cell is filled up with little rods and dots, which represent the store of energy. When a cell is tired out, and exhausted, then these litte/ rods and dots disappear--or nearly all of them, and they become smaller in number, and the cell shrinks, and as the cell shrinks it pulls in these fingers that it thrusts out when it is in communication with the other cells. Here is a little cell down here, and this sends up a long line, and at the end of it there is a division into filaments just like the rest-- it thrusts out a lot of little tufts or fingers, which are in close contact with the fingers of the other cell, and when in natural contact there is an expenditure of energy, but when they draw apart, then there is no expenditure of energy.

When the energy is completely exhausted--not completely exhausted, but reduced to such a degree that these rods and dots have disappeared, so that there are just a few of them left--just two or three of them where there ought to be twenty, and then the cel shrivels up, and the fingers pull apart, and then the light goes out, and all work ceases. That is the reason we go to sleep. When we are ~~waking~~ awake, then these fingers are in contact,, and they know what the other cells are doing, and each cell is conscious of what the other cells have in them, they are conscious of the impulses that are thrilling through them, so that the whole brain is active,--and we are alive.

suppose all in the room should close our eyes, and we should be absolutely still, and none of us were touching each other, we would be lonesome, because we could not tell that there was anybody around us, and that we were all alone. So it is with the brain cells when they pull apart, and do not touch each other. But if you put out your hand and touch sombody,--I put out my hand in this direction, and in that direction, and I find people all about me. If we should take hold of hands, and the person at the other end of the line should pull, the whole line would be conscious of what was going on. Helen Kellogg learned French, German, and English, just by the sense of touch alone, without hearing, and without sight.

Now this is the store of energy that we can see in these nerve cells in the shape of rods and dots. Let this tank represent all the energy in the body. (Diagram.) Let us fill our tanks full of energy. Then we will feel fine. A lady told me this morning that she felt like a steel trap--brimful of energy, ready to do whatever came along, and feeling prfectly well--absolutely well. Now when a person feels that way ,--as though he would like to jump ten feet high,, his store of energy is ample--it is large.

Now when we use the water to this point, then the current will cease, as the water sinks in the tank the water will flow with less and less force, and the wheel will not run quite so fast, and by and by when it gets down to a lower point , the wheel will go very slowly, and when it gets down to the same level the water will cease to flow, and the wheel will stop. That is exactly the provision that nature has made for us, that the wheel should stop before the store of energy is gone and the tank is empty.

There are a great many wheels that are to be fed by this current--the brain wheel, that expends energy, the muscle wheels, and a whole lot more little wheels--the heart wheel, and the lungs wheel, and the stomach wheel, and the liver wheel, and various other wheels that are to be fed from this store of energy, and these wheels are run by pipes that tap the tank a little lower down. For you can readily see that if the heart wheel were allowed to tap the tank at the same point as the brain wheel, then if we used up all the energy with the brain, we might use up so much that it would not run the heart work, or the stomach work. So with the muscles. If we could draw upon the store of energy with the muscles to the same point that the heart can draw upon the store of energy, we would get to the point pretty soon where the heart couldn't go, and then the heart would cease working, and then we would die.

But nature has provided that these voluntary actions , and voluntary activities, shall cease a long ways before it reaches the point at which the heart must cease and the action of the lungs must cease. In consequence of this loss of energy in the cells, and the dissipation of energy, we by and by come to a point where these nerve fingers in the brain are retracted to such a point that they pull apart, and then you cannot keep awake any longer. Then you can whip these cells, and cause them to come just to touching, and so we are just about half awake-we are drowsy--that is the way we get sometimes when we go to church--we just get a faint idea of what is going on, but we are oscillating between sleep and wakefulness, but by and by the fingers spread completely, and then there is no consciousness, and no brain activity, and then we are sound asleep, and then our tanks, our vital tanks, begin to fill up and the stores of energy accumulate, for the muscles do not work, and the brain doesn't work, and the stores of energy are gradually

replenished from the food we have eaten during the day. It is by assimilation that the food is deposited in the blood, causing a reproduction of the rods and dots in the nerve cells.

Now, then, what does all this have to do with tonics? What does a tonic do? It adds nothing to the store of energy in the tank, if you please,--it does not add any more rods and dots to our nerve cells; it can form no more rods and granules in our nerve cells. It cannot do this in any way nor replenish our energy in the slightest degree. But this is what it does do: It enables us to tap our tanks a little lower down. That is what it does--it enables us to tap our tanks a little lower down, irritating the nerve cells, rendering them more sensitive, so that they are more ready to throw off their energy, and the consequence is that, under the influence of the tonic, a nerve cell that has perhaps five hundred rods and granules, has been reduced down to one hundred rods and granules. Now a tonic may make it possible to get fifty more out, but that is squeezing the cell--straining the cell, and compelling it to throw off more energy than it can afford to lose--more than it is safe to lose--it would compel it to throw off more energy than nature ever designed that it should lose, and it may throw off so much that it can never build itself up again.

As an illustration of this--a gentleman came to us some years ago to have something done for his stomach. On his way here he stopped at South Bend, and at the depot he met the emissary of a quack doctor, who said "I know a doctor down town that can cure your stomach, and you will not need to take a long journey to a sanitarium, and lose so much time,--come up, and I know he can cure you." So he thought it over, and the man was so positive that the doctor could cure him that he thought he would go, and as he had three hours to wait for his train he went up to

the doctor's office, and the doctor said, "Now I can cure your stomach. It doesn't matter much what is the matter with it, I can cure it.. I have got a medicine that will cure any kind of a stomach trouble, without loss of time in taking treatments, or without attention to diet.

It will cure your stomach so that it will digest anything. Now then, when you take your dinner, I will go over to the hotel with you, and give you a dose of this medicine, and you can eat anything you like." The gentleman was somewhat timid, but the ~~xxxxxxxx~~ doctor assured him so earnestly that he could cure him, that he consented, and he took the medicine, and the doctor went to dinner with him and they ordered everything there was on the bill of fare, and the stomach went on and digested that dinner. He thought he would take that medicine home with him, but he had come so far, and was so near here, that he thought he would come on and show me that wonderful bottle of medicine. So he came on to the sanitarium, and he showed me the medicine. I looked at it, and smelled it, and then I shook the bottle and touched just the edge of the cork to my tongue, and I didn't get over shedding tears of regret for over five minutes. That medicine was a double distilled extract of cayenne, capsicum, mustard, pepper, pappersauce, and everything else that was hot--it was the double distilled extract of everything of that sort, combined into one. It was simply a tremendous whip: That is just what it was. It was a tremendous whip--it was so powerful a stimulant that it could compel that stomach to digest foods that it wasn't able to digest. But that was the last meal that that man's stomach ever digested. The next day he ate something that he thought he could digest reasonably well, and he took a dose of this medicine into his stomach, and it set up an inflammation, and in a couple of weeks he died.

Now when this man with weak nerves goes to a doctor, and says "Doctor, I want a tonic," and the doctor gives him a tonic, and the next day he feels pretty well. But in a very short time he feels as bad as before, and then he feels worse than he did before he took the tonic, and he needs little more of it this time, and the next time he must have a little more still--it is like the application of the whip to the horse. The horse gets used to the application of the whip, and we must apply it to him harder, and harder, and harder. I took a trip when I was a boy, with of about a hundred miles, with a young friend of mine. We borrowed the horse, and we didnot know what kind of a horse it was. I was about sixteen years old, and my friend about fourteen. We borrowed this horse to take the trip up into the north woods. We had got but a little way out of town, when we found that we had to work our passage with that horse. We hadn't got more than five miles than we found that although this horse was a very fine looking horse, and looked sound and vigorous,--we found that we were very much deceived in that horse, and we hadn't got more than fifteen miles from home when we arranged our mode of procedure: One of us stood up in front with the whip, and the other held the reins. If we didn't whip him he didn't know that we wanted him to go. The fact was, that horse had been whipped habitually. He had been habitually whipped until he would not go at all without the whip. We kept this arrangement up for some time, but finally we got tired, for it was hard work, and we attacked a nail to the end of a long stick, and then we found that we got along a little better, because that was a kind of a whip that the horse hadn't been used to. I have thought a good many times that that is a good illustration of what happens to a man when he goes

to a new doctor and gets a new kind of a tonic. He simply gets a new kind of a whip that excites him and irritates him in a way that he has not been accustomed to before. So he goes from one doctor to another to get new stimulants, and by and by he exhausts the last resource, and then his doctor says "Your case is a case of nervous prostration--your case is a case of nervous exhaustion." That is exactly what it is. The nerves have been exhausted--the nerves and the energies have both been exhausted. A gentleman came here at one time, and his doctor wrote me in reference to his case, and he said "Doctor, I have had this patient under my care for nine years, and I have given him all the tonics in materia medica. I think he has nervous exhaustion." This physician was a professor of materia medica, and he knew them all, and he said he grew steadily worse all the time. That is precisely what we would expect of him. A tonic simply gets energy out of a man that he cannot spare without damage. The doctor concluded, "And I think he needs a little physiological stimulus." The word stimulus wasn't appropriate, but he needed physiological treatment, rather than pathological treatment. He needed something that would build him up --not tone him up, but build him up,, and to put more energy into him. That is what the man whose nerves are weak needs--is a larger supply of energy. He doesn't need to have something applied to him that will compel him to expend more energy, but to put more energy into his body, and give him more vitality, and give him more strength and energy, and then he will expend it spontaneously--he will expend it himself. I look out of my window sometimes, and I see my ponies racing up and down the pasture out there, just racing from one end to the other end, and racing with all their might, up and down that lot, and I think, as I see those ponies racing up and down in that way,-what a splendid explanation--why the

animal cannot keep still--he is so full of energy that it is impossible for him to keep quiet. He must expend it. The locomotive, under a high pressure of steam, and with the throttle open, must run, and it ~~xxxxx~~ stops running when the steam is down.

The body is a machine in which the throttle is always open. We can not keep the machine still when the steam is up. Take a good energetic boy, that has got rosy cheeks, and bright eyes, and full of vim, and full of vigor--isn't it quite a task to keep that boy still? Take him to church before he has been taught to sit still: It is the worst punishment that you could possibly give him, to make him sit still. He can't. He is like a steel trap that has an automatic arrangement for setting it off--it is springing, springing, springing, all the time. There is something exploding inside of him, and he has to make a demonstration.

I hope I have convinced you that tonics are a mistake, and that you are better off without them. It would be better, as ..... said, if tonics were all cast into the sea. It would be better for the world, but it would be ~~xxxxxxxxx~~ bad for the fishes, because, all tonics are poisons. Every single tonic is a poison. There is no such thing as a harmless tonic. Patients come to me and say "Doctor, can't you give me a ~~xxxxxxxx~~ tonic,--some kind of a harmless tonic?" That is what you have been used to teazing for at home. One lady said, "Doctor, I must have a tonic. I know you don't believe in them, but I feel as though I need a tonic." So I sent her some water that had a color, and had a taste, and had a very slight smell, but had no poison in it, and I put a label on it "Tonic," and it did her lots of good. It was a sort of a mind cure. But I don't do that any more. Intelligent ~~people~~ people ought to be willing to conform to our principles. Intelligent men and

wwmeman be made to understand the right thing, and co-operate with the right thing.

But we have to use a little humbuggery once in a while. One man I humbugged thoroughly, and I didn't tell him any lies, either, and it did him lots of good. He was a great believer in Phrenology, and he had the idea there was a paralysis of the bump of hope in his head He was in despair all the time, for he thought he had paralysis of the bump of hope, and as it was a phrenological disease, it had to have a phrenological remedy, you see. I took him into my office one day, and I discoverdd that a mind cure was absolutely nedessary, because we had tried everything else, and his disease was entirely a figment of the imagination, and must be reached through his intellect. I hxdx asked him to come into my office, where I had a little instrument that determines temperature to a wonderful degree, known as the Thermo-Differentiating-Calorimeter If you apply this little instrument to different parts of the head, it will tell you right away the difference in temperature between those parts of the head. For instance, if there is the difference of a hundredth of a degree between the sides of my head, this little instrument will record it right away. So I told the man, "Your state of mind might be brought about by either of two things,--by paralysis of the bump of hope, or inflammation of the bump of caution. If it is an inflammation of the bump of caution, that would produce an excessive fear and apprehension. So that it may be that your bump of caution is in a state of inflammation, or else the bump of hope is paralyzed." "How can we tell whether it is an inflammation of the bump of caution or not?" I said, "Here is a little instrument, the thermo-differentiating-calorimeter, which will determine the difference of one hundredth of a degree in temperature, and if your bump of cau-

tion is inflamed, there will be too much heat, because wherever there is inflammation there is heat, and if we should apply this little instrument over these bumps, and the bump of caution has too much heat, that will show that it is infla/med, and that there is no paralysis of the bump of hope at all ." But he didn't think it possible but what it had undergone fatty degeneration. He had read the whole thing up, and it was at once a settled thing with him.

Then I applied my instrument. This instrument is susceptible to a little manipulation if necessary, and as he looked at the dial and saw the hands swing around toward the bump of caution, he saw there was no mistake about it, and that man arose from that chair well and cured. He walked out of my office the happiest man I ever saw, and just so long as he retained his faith in that thermo differentiating calorimeter, he was all right. But at last somebody put a little seed of skepticism into his mind, and then down he went into the old rut again.

I don't know that I have practised that for several years back, and I don't remember of having another case where I should have done that sort of thing, and I don't think I will do it again. I think there is a better kind of a mind cure. I think there is another way in which these morbid whims and fancies can be gotten rid of, and in a way that is a great deal more permanent.. Now in the use of these tonics, as I said a little while ago, a person is deceived into thinking he is strong and vigorous,so he goes right on when he ought to have had a rest long ago--the man that is in business goes on toiling, toiling, toiling, when he ought to have had a vacation years ago, he goes on year after year, until he is in the condition of a man I met in Chicago the other day that had been working for forty years without a vacation. When I

arrived at the Twelfth street Depot in Chicago, last Tuesday morning, I found that my train was four hours late. But there was a gentleman there with a carriage, who took me to see a man who has been working for forty years without a vacation, until now he has come to a long vacation. I do not think he will ever work again. He has been going through that program of tonics, tonics, tonics, until he has come to the place where his store of energy is so completely exhausted that I don't think he will ever recover. We will send him a nurse, and see what we can do for him, and we may keep alive six months, but I didn't promise him even that.

The ostrich sticks its head under the sand, so that it cannot see its enemy, and then says "I am safe." It is said to be a very easy thing to capture a wild ostrich for that reason. Now that is exactly what the tonic does: It simply hides from you the fact that you are weak and nervous, and that your store of energy is low. You need to lay aside for repairs, and stop turning the wheel and using up energy for awhile: Let your mill-pond fill up; stop grinding so fast, and let your store of energy fill up a little while.

But you go on recklessly, until by and by you awake to the fact that there isn't enough energy left to carry on stomach work, and liver work, and keep the vital processes working, and then we must go to a sanitarium and be repaired on general principles. I remember a man who was just in that situation: His stomach was bad, and his liver was bad. I told him about his condition, and he said "Doctor, You will have to put a whole new set of works in me, won't you?" And that is just what we had to do. He was just like a watch where

there was nothing good but the case, and he had to have a new set of works, and we had to put in a new pair of lungs, a new stomach, a new liver, and a new heart. But if you will realize it, all this takes time. It is exactly like ~~Stuttgartner~~ tearing down a house, and still living in the house,--pulling out one brick after another, one by one, and replacing that with a new one, and so on all through, and the house is reconstructed. That is what these processes all mean--these swedish movements and electric light baths and massage and all the different processes undergone in this institution, are all for the purpose of rebuilding and making a new body.

The old water-cure doctors used to say that a chronic invalid could not be cured until he had a new skin. And that is perfectly true. When he gets the new skin, all the rest, the new lungs and new stomach and new liver, will all come right along with it. And instead of the old dingy leathery skin, he gets a new, white, vigorous skin. When he doesn't get a cold when he is exposed to all kinds of conditions, and the skin has a good reaction, then he is reconstructed all ~~xxxx~~ true. I can tell you the condition of a man's health, by an examination of his skin. If he has a tawny, dingy, inactive, lifeless skin, he is sick: He cannot be otherwise. But get that skin cured, and the man will be cured, for the same processes that will cure the skin, and make a new skin will cure the man, and make the new man.

Another of these old fallacies is that ~~anything~~ anybody can be cured, of anything, if we can only find the right remedy and the right doctor. I am going to assert here, in your presence, and recognizing the fact that here are a large number of intelligent people, who are

listening and criticising what I shall say, that it is impossible for any doctor to cure any man. Doctors don't cure. Doctors cannot cure. Remember, I said "any man." Doctors cure diseases. When a man has a pain, the doctor can give him an anesthetic and cure the pain, or he can give him a dose of morphia, and cure the pain; if a man has a nausea in his stomach, a drug of some kind will cure that nausea. If a man has a cramp in his muscles, the doctor can administer a drug that will paralyze those muscles, and then there will be no cramp. He can cure diseases but the curing of disease and the curing of the patient, is an entirely different thing. I knew a case a number of years ago where a lady had been treated by a doctor, for rheumatism. By and by the doctor pronounced her perfectly well, and he went home at midnight stating that the patient was entirely well, but she was dead before morning. "Cured to death," would be an appropriate epitaph in thousands of instances.. "Cured to death." There is no end of the people who have been cured to death. They have been cured of one disease, and another breaks out, and they keep on curing these diseases, as they break out, one after another. But when you cure the patient, you don't have to cure him over again, and keep curing him, he is cured permanently.

One doctor brought a patient here, and he gave her twelve grains of morphia, hypodermically. He told me her history: She was a sister of the lady to whom he was engaged to be married, and he was very much interested in the case, and he brought along the young lady in whom he was

interested, also. She was taking five grains of morphia daily, hypodermically. This lady had been suffering with her nerves, and she begged the doctor to give her something to tone up her nerves. She had attended so many church fairs, and made so many social calls, and attended to her part in the business of the community, and kept up her end in society, that her nerves were exhausted, and she wanted the doctor to give her a tonic. Well, the doctor said he gave her some ordinary bitter tonics, and she got along very well, and said "Doctor, that tonic does me good." And for the first week she felt first rate. But then she felt bad again, and had to have another tonic, so he gave her some iron and some other things, and she felt better for a while, and then he gave her quinia, and she did very well with that for a week or two, and then she had to have something else, and then he gave her strychnia. Now strychnia is the samson of the Materia Medica. It is so powerful that it will make a frog jump after its head is cut off. It will, positively make a frog jump after its head is cut off. I gave a frog some strychnia before an audience here at one time, and then I cut his head off, clear below the ears, so that there was no part of the brain left, and then the frog was placed on the table, and I tapped on the table, and the frog jumped clear off the table. This frog was in such a state from the effects of the strychnia that it only required just a tap on the table to cause him to spring into the air. We put him into a glass, and he was entirely collapsed in the bottom, but when we tapped on the glass he would spring right up into the air.

Now strychnia is the samson of all the tonics--the Goliath of the

tonics. There is no tonic that is stronger than strychnia. And she took three to four grains of strychnia every day for a while. After taking that she said "That is a splendid tonic, and I feel tip top. But there is just this one trouble, I cannot sleep at night." And so the doctor had to give her something to make her sleep at night, and sh she took her strychnia to tone her up in the morning, and then she took bromide of potash to tone her do n at night. She had to take thirty grains of potash to paralyze her nerves. She first took the strychnia to excite her nerves, and then took the bromide of potash to paralyze the nerves, until by and by she had to take chloral, and then morphia, and when she began to take morphia, pretty soon her bowels and her stomah became inactive, and ~~xx~~ she had no appetite, so she goes to the doctor, and says "Give me something for my appetite. My bowels are paralyzed." And then he had to give her a course of laxative afterbreakfast pills, and nightcap pills, and eye-opener pills, and~~xxxxx~~ and morning, noon and evening pills, and so she went through the whole category of laxative pills and cathartic pills, and finally she got to croton oil, and at last that failed to be of any service to those bowels that are paralyzed by strychnia, chloral, bromide of potash, morphia, etc.

This is what she was taking for a regular ration--I say ration, for she was living on medicine, for she had no appetite;- she was takingtaking twelve grains of morphis hypodermically, three or four large strychnia pills, three or four grains of arsenicum pills--arsenious acid pills--he had to add the arsenic to the strychnia to reinforce it. The worst poisons are the best tonics--it is the ~~tonic~~

poison that produces the most tonic effect. Besides that, she took twenty grains of chloral, forty grains of bromide of potash, twelve grains of morphia, and every morning, to stir up her stomach, she took into her stomach a tablespoonful of ground mustard seed, which was the only thing that would have any effect at all upon the poor paralyzed viscera. That was her regular daily ration.

So they brought her here, and we said we would cure her, and that we would take the medicines away from her. The doctor stayed around here for two or three days, to see how we would do it, but we didn't do it while he was here. The doctor was afraid the patient would collapse as soon as we took the medicine away from her, but we got along the best we could until he was gone, and then we said, "Now, then, we will have no more drugs: we are going to feed you on food." "We are going to have food instead of medicine." "Why, can you do it? I will collapse?" "How can I sleep without my medicine?" But I told her that one hour's good natural sleep is better than a whole night's artificial sleep. It is easy to put a man to sleep by knocking him down with a club, and a medicine that puts a man to sleep is simply knocking him down. But there is an reaction from that--there is an injury that comes along with the club. If the club did not produce any injury, it would be the most convenient way for doctors to put their patients to sleep. Every drug does a damage, just as every club has a damage in it. It quiets him, but in a violent way, by doing damage to his nerve cells and constitution, until it ruins his constitution. Knock a man down with a club, and you will knock his head all to pieces, and if you knock him down enough times with medicine

his nerves will be battered all to pieces. It is simply a matter of size which is the lesser evil. A large club would be worse than a small dose of medicine, and a large dose of medicine might be worse than a small club. So you see it is simply a matter of size. This lady got a few strong doses of aqua distillata, I believe, and a few strong doses of water with a hypodermic syringe. In less than a week she began to have a good appetite, and was sleeping five hours a night. She returned here seven or eight years later, and I found that she was a total abstainer from arsenicum, chloral, bromide of potash, morphia, etc., and had been so ever since she went away from here, and that she had been well ever since.

Now, as I said before, doctors nannot cure patients, they can only cure disease He can cure weaknesses, but it returns. He can cure pains, but they return. Now when a patient is cured, he doesn't have to be cured over again every day, he is cured permanently.

I saw an advertisement in one of the newspapers the other day,-- it was the advertisement of Dr. Pierce's medicines. This lady said it was the best medicine she had ever taken: "It fulfills all that you claim for it; it is a splendid medicine. I have taken over forty bottles of it, and I don't know how I would get along without it." That is just it: A medicine that cures in such a way that we must keep on ~~making~~ taking it, and "can't live without it," doesn't cure anything. It is the height of nonsense: It doesn't cure anything. Doctors can cure diseases, but they can not cure patients. When a patient is cured he does not have to have any further application of the remedy, but when we cure a disease we must keep on curing it. The pain is right

there, and it keeps right on paining, and it must be knocked down anew every day. Drugs cure diseases, but, with a very few exceptions, and as a rule, do not cure patients.

Nature cures. Nature is only another name for God. Whenever a sick man gets well, it is only because the power that made him has cured him. The fomentation, ice pack, steam bath, electric light bath, or what ever it is, the massage, or swedish movements, or regulation of diet, are only agents: When a sick man gets well it is God that cures him. The doctor has no power to cure, the medicine in itself has no power to cure. The power to cure is within the man. ~~xxxxxx~~ Some people get well quickly because they conform more quickly to the principles which it is necessary to recognize in order to co-operate with this divine power that heals.

There is a power within --a divine power,--that is seeking for the good in all of us; it is seeking for the good of everybody. There is a power that is working for good in every little flower and every leaf and every grass. There isn't a living thing that can get away from this infinite omnipresence, because it is in every living thing, and this power is in every man and woman, and in the sick man, and every groan is a prayer for help, and that prayer is answered, too, if the man is ready to co-operate with it , and that very prayer is a prayer for relief to the God that dwells within him him, and not to a God that is afar off,, and then the faith that is expressed in the groan or the sigh is the means by which we are brought in harmony with the power that is working for our good. so the sick man that wants to get well quick,

who is in a hurry to get well, and who is anxious to be reconstructed and renewed and made a well man, will seek in every way to harmonize with this great power for good.

Let us all remember that the body is a temple in which there is a divine presence ever dwelling, and everything that we do to this body, to harm it, to injure it, to impair its power, is a sin; it is a wrong; it is an insult; and everything that we can possibly do to develop the powers of our bodies, everything that we can do to develop the divine powers that are given to us,--everything that we can do to develop this power that is within us, leads us to a higher and a better life, and to the Christians best enjoyment, in this world and in the next.

One more word and then I am through: I am now about to take a trip of inspection to the seven different sanitariums which are controlled by the Medical Missionary and benevolent Association, of which I am President, so that I shall not see you again for some few weeks, and I am going to visit these diffirent institutions and see that they are ~~xxxxxxx~~ in line and standing up for and upholding these sure theories, and to see how the work is getting along, and to assist in various ways in organizing and reorganizing, and performing various branches of work, so ~~xxxxxxxxxx~~ that day after to-morrow morning I shall take a train for the West and as we are going over the mountains I expect to get snow-bound, and then maybe I can stop and think,--or maybe there will be a train off the track, so that I will have a few days to think. I feel as though I was rushing through space like a comet, and my head is all in a whirl, and if I could only get a chance to stop and think for a little, I would enjoy it. But I am not going to rest, I am going to take a stenographer along with me, and we shall work right along as long as I can hold my head up

But as I go I shall know that there are scores and hundreds of prayers going up to ask God to bless the means used here--to ask him to guide the nurses and doctors who are doing the work, that God will be in the work,--and God is in the work that is being done,--we believe that there is nothing done but what God does it: That this God that is working in everything in this world, that is in the forces of nature, in the whirlwinds , and the hurricanes, and in the volcano,--this same power is working in us. There are the very same forces working inside of this house that are working outside of it, and we can only do right, and we can only be right, when we are in harmony with it.

Prayer does not ask God to command do something for us,--He is always seeking for our good--but by our prayer we ~~ex~~ ourselves into a receptive attitude so we can think the right thing, and do the right thing, in the right moment, and then He will co-operate with us. God does not ask whether he is a Christian or not, He does not ask what sect he belongs to, he only asks if we are in trouble, and if we are ready and willing to work in harmony with him.

Now while I am away I want you to read the 107th.Psalm, and believe it means you--no matter whether you are a Christian or not, you are a human being and a child of God and belong to the great family of God. I want you to read the 107th.Psalm--"They that go down to the sea in ships," etc. Just read that, and believe that it means you. And if you are in trouble, and despondent, and don't know what to do, just read that,--and believe it. Then I want you to read the 103 Psalm--read the first few verses of that Psalm. I won't tell you anything about that, for I want you to read it and find out for yourselves. There is a Bible in each of your rooms. The Bible is the best of all to refer to. It is the foundation of ancient authentic history. The Bible now-a-

days is coming to be recognized by a great many people as more of an authority than they ever did before, because when there comes a new development by the Egyptian Development Company, it brings with it som thing to confirm the Bible. They dug up a few pages of the Gospel of Matthew a short time ago that was written two hundred years before the oldest compilations that are in existence. It was a roll of papyrus, and it read, verbatim et literatim, just as our copies that are made several centuries later. And when they explore around in old Babylon and old Thebes they find some wonderful confirmations. So it is a great store of spiritual food, at any rate. We know it is true because it strikes right into our hearts.

Now when you get weak and tired and troubled and weary, just go to the Great Physician and tell Him all about it. He asks only one thing--"Are you in trouble? If so, I will help you." So, I must now bid you good bye for a short time, and I hope and trust that when I return I will find you all here and on the road to health.

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SANITARIUM PARLOR LECTURE, March 31, 1898.

FOODS --FRUITS AND STARCHES .

J.H.Kellogg, M. D.

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Goodevening, Ladies and Gentlemen ! As you see, I have prepared a small feast for you this evening, and I propose to give you a somewhat desultory talk about foods, without a very precise or definite subject, except that I want to tell you a few things which I hope will be interesting and helpful to you, and will endeavor to make my experiments in such a manner that you can all see them.

I suppose you are all interested in the subject of food; that is a subject which is very often mentioned in this parlor,--so often that I fear it may become an old story and a dull subject, but it is a subject in which we are all more or less interested twice a day,--and sometimes three times a day--and that is one too many; and I have known some people who were interested in this subject all the time. I asked a gentleman the other day how many meals he ate in a day, and he said he ate only once a day, and his wife said, "Yes,--and that is all the time; he is always nibbling between meals, and he always has something to eat in his pockets." Some time ago I was reading ~~in~~ a book written by a man who was once a vegetarian, but who had renounced vegetarianism. It was Mr. Fowler, the great Phrenologist; he was once an enthusiastic vegetarian, but he renounced vegetarianism, saying it made people cross, irritable and pessimistic, and so he had given it up. I hunted up some of his older books in which he had written so enthusiastically about vegetarianism, and in one place he draws this contrast: "How much more delightful it is to sit down to a table spread with delicious cakes and pies and confectioneries, ices, sauces, preserves, etc., than would be a meal of flesh-meats such as roast-beef, stewed mutton, broiled steaks, etc." I quite agree with him that such a repast would be the more inviting of the two, but it would certainly be more indigestible, because beefsteak is digestible

by people who have ordinary stomachs,--that is one of the peculiarities of flesh-meats. It is so easily digestible that people are deceived in its use. Many who discontinue the use of meats have some trouble with their stomachs which they did not have before. Patients sometimes say, "Before I came here,my stomach would have digested wrought-iron nails if I could have chewed them, and now I have been here only a few weeks and have dyspepsia and sour stomach; I didn't have sour stomach at all before I came here, but since I have been eating your food I have sour stomach--and sometimes I have gas in my stomach--and I never had such a thing in my stomach before; but I have been eating your diet and I believe it has given me dyspepsia." Well a person who can exchange the kind of dyspepsia which he had before he came here for this kind of dyspapsia ought to be thankful, for it is an exchange of a serious and grave form of dyspepsia for a simple form of indigestion which is more apparent than the other,but far less damaging. There are two kinds of fermentation which take place in the stomach,--one is the fermentation of starches and sugars,and produces gases and acids, causing a sour stomach and a feeling of fullness or bloating of the stomach. But there is another form of indigestion or fermentation which causes things to decay in the stomach; The same sort of fermentation takes place which takes place in old cheese and in decaying flesh,--which causes butter to become rancid, and which causes meat to become tainted. This sort of fermentation produces comparatively little apparent disturbance in the stomach. Rancid butter in the stomach produces something like heartburn. But the fermentation of albumen is rotting-egg fermentation and old cheese fermentation; It does not produce serious symptoms, but there is giddiness and loss of appetite and a coated tongue. People who have sour stomachs seldom have coated tongues; people who have coated tongues have stomachs which are the hold of every unclean and hateful germ, and these germs are growing and multiplying in the stomach by the mill-

ion, and growing, not only in the stomach but in the mouth and clear down into the small intestines, so there are seventeen square feet of mucous membrane covered over with germs; the alimentary canal, which is thirty feet long, is also lined with germs growing like mold on the wall,--it is the same thing. Now this condition in the stomach is a far more serious one than a condition in which there is a little lactic or acetic acid formed, and which can be neutralized with a little soda. But soda cannot neutralize the ptomaines and toxins which are produced by decaying substances causing the feeling ordinarily called "biliousness." Biliousness simply means poisoning, and you can't neutralize that with soda. These poisons are absorbed into the blood, as the liver is not able to take care of them,--they overwork the liver; the stomach is paralyzed, and the whole body is brought into a state of semi-paralysis. The brain also is benumbed; you feel a numb, creeping, crawling sensations and various sorts of hyperesthesias, as the neurologists call them., and you think you are going to have paralysis.

But I was going to talk this evening particularly about Fruits and Starches. In speaking to you the other evening I called your attention to the fact that fruits are free from starches, and I wish to make a test which will show you that. I will cut this potato in two,--first I will make a little experiment with corn-starch. Here is a small quantity of corn-starch--pure corn-starch; I will shake up a little of this corn-starch in water, and I will add a little of this (Lugol's) solution in the test-tube,--and it becomes intensely blue; I can dilute it considerably and still it remains blue. This blue color is the evidence of the presence of starch. Now here is a potato, which will represent the whole class of vegetables; I will cut it in two. Now I put a drop of this solution on the potato and you see the blue color begins to make its appearance,--but it is not very marked. Now I will make another experiment and will hold this potato against the flame here for a moment. Now I will apply this (Lugol's) solution again, and it is decidedly blue, because the starch is cooked. This

reaction does not take place with raw starch very readily, which illystrates, perhaps, the reason why some people can take raw foods who cannot take them in any other form,--for example, some people can take raw cabbage who cannot take cooked cabbage. This is because the starch of raw cabbage is unfermentable,--that is, it does not decay in the stomach; the stomach treats that raw cabbage just like so much hay or other rubbish; it is not acted upon by the digestive fluid and it worries its way along into the intestines and makes trouble; whereas cooked cabbage will quickly ferment and decay in the stomach.

I have here a little chestnut flour, and, in order to make a ~~test,~~ contrast, I will make a little dough on this little porcelain plate. Now I will add a little of this solution and hold it up,--you see at once how decidedly blue it is; this blue color is the evidence of the presence of starch in the chestnut. The chestnut is almost the only nut that contains starch to any great amount.

Now it is a very curious fact that starch may, by the action of saliva, be converted into sugar,--and I am going to illustrate this to you: I have here in this little glass some ~~starch,--here is some~~ diluted starch. I have in this tube some saliva,--I will add some of this saliva--I will put it in here, and then we will make an examination,--I see that this tube has been injured, ~~so I shall have to wait until I get some other tubes.~~ but this tube that I have in my hand will answer the same purpose. I will put this tube in here for a moment and warm the solution a little, and then we will let it stand a short time, and while this is undergoing the change, we will make another little experiment. It is a curious fact, as I stated to you a moment ago, that starch can be converted into dextrin and into sugar by the action of the saliva. Now I will put into this test-tube a little of this starch. Now notice that when I drop in a drop of this solution, it becomes intensely blue. Now I will boil it a short time, and we will see if there is a change in it. It takes a little while

to heat it up; the color has already almost entirely disappeared; now it is becoming slightly purple or violet; that color has also pretty nearly disappeared. Now I am going to make a little test -- I will add a little of Fehling's solution which is a test for sugar. Now you see a slight,yellowish appearance; that is the result of the presence of sugar. I will repeat this test with some starch that has been boiled for a longer time,and you will see that this reaction will take place in a moment. These changes are taking place in the process of digestion, and the purpose of these experiments is to show you the reality of the subject of digestion; it is a change which is taking place in the construction of foods in the stomach,and which can be imitated to some degree in the chemical laboratory. You see now,that there is a slight precipitate here,--this opacity which you see here is due to the presence of sugar. Now here is this starch solution which has been acted upon for a little while by the saliva, and you see when I drop in a little of this solution it no longer becomes blue; a moment ago it was blue, but it is blue no longer. I want you to see the contrast between these two tubes. I will just drop into this tube a little of Lugol's solution,which is simply a solution of iodine. Now I will hold these two tubes up so you can all see,--I will put this white napkin behind them so you can see better; you see one of them is purplish or brownish,while the other is blue. This purplish or brownish color is due to the fact that the saliva,acting upon the starch,has converted it into dextrin,so it is no longer starch. This is the first part of the process of dihestion; the first stage in the process of digestion is to convert starch into dextrin,--that is the point to which I wish particularly to call your attention.

More than twenty years ago it occurred to me that if we could by any means prepare our starch so that part of it would be converted into dextrin it would facilitate the process of digestion. So,after quite a long series of experiments,I elaborated a very simple food which we

call Granola." Now I want to call your attention to the difference between Granola and ordinary breads,--for instance,here is some ordinary white bread which will answer the purpose--and I will take this solution which we have here and which will answer the purpose exactly. Here is granola in this glass; I have added some water to it,and I will stir it up. Now I am going to drop into this glass some of this (Lugol's) solution. Now I am sure you can see the difference in the color of these two; one is starch,and the other is partially digested starch; This granola has the same color as the starch in the tube which has been acted upon by the saliva,--this color has somewhat disappeared. This has now been completely digested,and you see that by degrees the color is disappearing in the Granola. This is starch and has the ordinary blue color that you can get from a piece of bread. I will put in a little of this test-solution and the color almost disappears at once; I will add a still larger quantity--at last we have quite a deep blue,---it requires quite a large amount of this solution to produce a deep blue,--this is not intensely blue like the other, still it has a purplish color which will become more apparent when I have diluted this a little more. Now I have diluted the two, and you can clearly see the difference,can you not ? ("Yes.") Now the granola has been acted upon by the heat so that the starch has been converted into dextrin. That is the same process which takes place in the digestion of food; saliva does the same thing to starch that heat does when it is applied to starch at a high temperature. A temperature at the boiling-point, 212" is not sufficient; it requires a temperature of 215". The crust of the bread is more soluble than the crumb, so if you want to make a solution of bread, you should take a portion of the crust, add hot water to it and shake it up and it dissolves so that you get a nutritive drink, because dextrine is soluble,while starch is not . Now I will apply this solution to this piece of bread which the doctor has brought me;you see that when we apply a little of this solution to the bread we have an intensely blue spot,because in ordinary bread this change from starch to

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dextrin has not taken place to any great extent. Now I will take a crumb of bread and put it in a glass and add a little water to it. Now I will shake it up and let it settle and then turn off the water,--just as I did from the Granola. Now we will test this,--you see this solution is blue; here is pure starch; it has simply been boiled. And here is the Granola,--you see the color has almost entirely disappeared. Again: I will just apply a drop --there is always,of course a little starch that has not yet been converted--but we will turn this out; we will dilute it again,so you can see the difference. Now you can surely see a decided difference between the two--the purple color of the granola and the blue color of the starch,--and here is the blue color of the bread,which is practically the same as ordinary boiled starch.

Now this is a principle which we have undertaken to apply to all our foods,--and it is a principle which everybody ought to apply in the manufacture of bread. Odinary bread is really scarcely fit for food, unless one separates the crust and use that. But if we subject this bread to a second baking, as in the case of zwieback we have a different thing, as I will show you by breaking up a little of this zwieback and applying the same test to it; the zwieback undergoes this change by the addition of heat,--here is a sufficient amount. Shaking this up for a moment so as to dissolve it,we get some of the soluble dextrin separated. By adding a little of this solution (Fehling's) you see we have just what we had in the Granola--we have a purple reaction,which you can see here very beautifully at the top--a purple reaction instead of a blue. This shows that we have dextrin in the zwieback. That is a matter of very great importance,for the reason that the great majority of the American people are suff ring from starch indigestion or amylaceous dyspepsia which has been brought about by the eating of half-cooked bread and half-cooked mushes. I am not certain whether the balance is one the side of evil or good, in the eating of oatmeal mush,and in the use of partially cooked ce-

reals generally. These "breakfast-foods" are generally sold in a crude, half-raw state, but many who buy and eat them don't know that. Many hygienic writers take strong grounds against oatmeal, because they say that water-brash is general among those who live upon "Scotch brose." Scotch brose is prepared by simply pouring a little hot water upon oatmeal and eating it at once; that is the way the Scotch eat oatmeal; they eat it when it is in an almost absolutely raw state. An English gentleman once recommended oatmeal to his friend as being healthy food. The friend tried it and used it for some time in his family without cooking it. He finally asked the gentleman if it would not improve oatmeal to cook it. His friend had neglected to tell him that oatmeal should be cooked some ten hours to make it easily digestible, but the man ate it raw because he thought it was right to do so, thus setting a good example. If one is sure a thing is right and good he can compel himself to like it. The Scotch people are very fond of Scotch brose, which is an illustration of the truth of this proposition.

Now the American people have been deceived by these advertisements of partially cooked foods. The most outrageous frauds have been perpetrated upon them by those who sell these "breakfast foods." Thousands of tons of this sort of foods are sold annually; whole train-loads are shipped to large cities daily. Here, for instance, is oatmeal which is advertised as being "steam-cooked oatmeal,""ready for use in fifteen minutes,--" they might better say fifteen hours; but by advertising that it was ready for use after cooking just fifteen minutes, people have been deceived with the idea that it has been cooked, but, in fact, it has been so slightly cooked that it is almost as indigestible as though it had not been cooked at all. There is no preparation of this kind in the market that is fit to eat unless it has been cooked three or four hours. There is really no ~~such thing as~~ "steam-cooked" cereal in the market that is fit to eat without three or four hours' cooking. These steam-cooked foods are simply fed into a

machine, and there is a little stream of steam which goes in with them, so they get a little of the flavor of steam. Some of them are put into a chest and steamed a little; but they are not cooked,--they are full of raw starch.

There is an attempt being made to prepare some breakfast foods which are really thoroughly cooked and thoroughly good food; this is the so-called "shredded wheat." But this food is open to the same objection as other prepared foods,--viz., that it is not properly cooked. Examine a cake of this shredded wheat, and you will find that the outside is cooked, but the inside is raw. If you place a cake of this preparation in a glass of water and shake it up, it will produce the milky color of raw starch. On the other hand, if you place a cake of granose in a glass of water and shake it up, you will see a very different result. Now I put this cake of granose in a glass of water a moment ago, and I would like to have you see how it is going to pieces; it is all swelling out until it has nearly filled the glass; in less than half a minute it has completely softened, and now it fills the glass,--and it is only half a cake; iif it were a whole cake it would fill the glass to overflowing. Notwithstanding it has been mixed with the water in the glass in this way, I want to call your attention to the interesting fact that the water is scarcely colored. I will ladle out some of the water into another glass and hold it up to you; you will see that it is clear,--the water in this glass is almost absolutely clear; it would be clear if it was filtered, because the water itself is clear. This shows that there is not a particle of raw starch there. But a very different effect would be produced if I should take some of this granose which I hold in my hand; it has been boiled but it has not been baked,--it has not been put through the roasting-process by which the starch is converted into dextrin. Now when this is stirred up a moment it produces a milkiness in the water, which shows that there is some raw starch present. When these translucent flakes have been put in the oven and baked, the starch which they contain is converted into dextrin. This food has this

advantage over shredded wheat, that it is in transparent films and not in strings. I would like to have you notice this form,--the food in this glass all breaks up into fine particles,whereas the flakes which are placed in this glass are not. I am going to call your attention to another thing,--and that is, that the flakes in this glass are still whole,--Please observe that the flakes in this glass are all large and whole; they are not broken up; they retain their form so that the water remains clear,--showing that there is not a particle of starch there.

Now I am explaining the philosphy of this subject to you so that if you want to go into the business of making dextrin by the wholesale you can do it,because it requires nothing in the world but heat and starch; and I want to convince you that bread that is not baked thoroughly,--that bread that is baked so that it is only slightly browned--is not wholesome; that no sort of starch food is properly prepared unless it is cooked so as to be dextrinized,--and this is especially true in the case of people who have feeble digestive powers. I wish to call your attention again to this beautiful purple color on the top of this tube. This color, as I have said, is pcoof of the presence of dextrin; please contrast that with the blue of starch. I will add a little more of the solution,so as to make this, perhaps, a little more apparent to you, and I will hold the two up side by side so you can see it distinctly. Now you can see the wine color of the dextrin (erythrodextrin, as it is termed). This proves that the starch in this food has been converted into dextrin by the process of manufacture. And this manufacture has no secret about it; it is nothing in the world but the application of heat, The same thing is produced here that is produced in a crust of bread,--and you see the reason why--you see the basis of the idea which is everywhere prevalent,--that the thicker the crust of bread,the better the bread is; and the longer the bread has been baked the thicker the crust ; the longer the bread has been baked,and the higher the temperature to which it has been exposed,the more thorough the conversion of starch into dex-

trine, and the thicker the crust will be and the larger will be the amount of digestible material in the bread. The crust is the most digestible part of the bread.. Now I am going to show you the contrast here: I will ask you to look at this tube which contains only the granose which has been boiled, and the other has been baked,--one is very dark, while the other has a beautiful purple color.

Now I want to call your attention to another interesting fact which I told you about the other evening, but which I didn't demonstrate to you,--namely, that fruits contain no starch. I applied this (Lugol's) solution to the potato, and to cereals, and also to bread; now I will apply it to an apple--you see it has no effect upon an apple, no change whatever is produced when this solution is applied to an apple, because the apple does not contain starch. I will apply this same solution to an orange,--you see there is no change made when it is applied to the orange; you see it is entirely without change; so there is no starch in the orange. Now here is a banana,--I will apply some of this test to the banana,--you see there is no change in the banana; that is one of the beautiful things about the banana,--that it does not contain starch,--or at least but very little. Here is some banana flour,--I will apply a little of this solution to this banana flour after having been mixed with water, and we will see what the effect is--you see there is a very slight blue color here when the flour is mixed with a little warm water, because the banana contains a little starch; but it is almost free from starch; it would require but little heat for this starch to be entirely digested. But in the apple, the pear, the peach and the plum we have not this light blue color. Nearly all sub-tropical fruits are almost ~~free~~ entirely free from starch. But in bread of any kind which has been baked only until it is slightly brown we have food in which the starch is only partially digested. So you can see at once the reason why you should have your granose biscuit toasted,--so as to have as much of the starch converted into dextrin as possible. In the granose flakes the granose is toasted already; but in the granose biscuit the interior is not so thoroughly roasted as in the granose flakes; for

this reason it is wise to use granose flakes, which have been toasted, and when you use granose biscuit they should be toasted, and then you have a most perfect bread because of its dryness which calls out the saliva. And it has the peculiar property that when mixed with water the water completely disintegrates it,--there are no crumbs left, and there are no hard lumps formed, and it cannot possibly become salvy. Now you see my hands have been soiled with it--I will rub my hands with it until they are thoroughly smeared. Now I will simply dip my hands in water, and you see that there is nothing on my hands. That is because the granose does not become adhesive or pasty; it cannot possibly combine into masses in the stomach and thus remain there undigested. On the other hand, if you moisten a piece of ordinary bread, in a short time you have a pasty mass which adheres to your hands so that they are in much the same condition they would be in if smeared with dough. This condition is due to the fact that the starch of ordinary bread has been only half-cooked. When I moisten a portion of the interior of this bread and rub my hands with it, it does not wash off when I dip my hands in water,--some portions still remain when I dip my hands again in water. My hands have to be rubbed hard in order to get rid of all the fragments of this pasty mass. The same thing occurs when ordinary bread is swallowed into the stomach--especially when the bread is new; it forms in the stomach into lumps and chunks, and adheres in masses so that the saliva does not penetrate it. All breads must be thoroughly cooked in order to be easily digested. Fermented bread, not being thoroughly cooked, remains in the stomach a long time and ferments and injury results. Then, in fermented bread we have the starch mixed with germs; they are not killed in baking because the inside of the loaf does not reach a sufficiently high temperature to destroy them. So the germs and the spores are left alive in the bread, all ready to grow, and when this bread is taken into the stomach lumps are formed and these lumps contain germs and they grow inside of these masses, as the result of

which you by and by have sourness and fermentation in the stomach. Are there any questions ?

You see at once that for a person who has difficulty in digesting starch ,it is of the utmost importance that starchy food shall be already partially digested, as in zwieback. But people complain of zwieback; that it breaks their false teeth, smashes the plates,etc., so that the dentist must make repairs. Some say their teeth get sore so that they cannot chew hard things; that it makes their gums bleed and tears their mouths. Then there is the objection to this kind of hard food, that some people have no grinders, and the gums of some people are not in apposition,etc. Such people have difficulty in eating hard food, and it has been , inconsequence, swallowed into the stomach in chunks. Now our granose was created for the express purpose of being readily chewed by people with poor teeth,--and even by people who have no teeth, and which can be melted down,-- not into a pultaceous mass but into minute particles which may be readily acted upon by the digestive fluids.

QUES.--Is it less digestible when taken with cream or milk?

ANS.--The purpose of granose is to furnish a food that is dry and that must be chewed; this will cause the saliva to pour out and complete the process of digestion. Of course when we add cream or milk to granose it makes a delectable morsel, but it has not really the digestibility that it has when dry. If you want to get the benefit of granose, eat it ~~when~~ dry. If you wish anything with it you may eat it with a little nuttiline, sterilized nut-butter, or sterilized cream or butter. But I could not recommend free fats in any form because it ferments in the stomach and produces butyric acid with its uncomfortable effects, and a good many people suffer from indigestion in consequence of the use of butter and fats which the stomach cannot digest. But if we take fat, we should take it in the form in which nature produces it,--in the form of nuts or cream,--if you are able to take cream.If you are going to take cream take Devonshire cream; granose with Devonshire cream is delicious. In preparing this cream, the milk is set in cans about two or three feet deep, allowed to stand over

night and in the morning it is set in a stove and brought nearly to the boiling temperature; it is boiled until the cream has risen in a mass nearly an inch thick. The cream is then hardened and put in nice little jars. This cream is about as soft as very soft cheese, ad is very sweet and delicious. That is Devonshire cream, and if you add this to granose, having the starch, albumen and casein partially digested, and the fat in a partially emulsified state, you have a palatable and wholesome dish. Nevertheless, some people cannot digest cow's milk,--and I think cow's milk is not intended for adult human beings to eat.--

By the way, one reason why I don't think we need the material of which cows are formed, is, that we have no horns; the material of which cows are made is adapted to the purpose of making horns, and cows have horns, and we have not, and do not need them. The same principle applies to sheep; we do not need to consume the material of which sheep are made, for those materials form wool, and the sheep wears wool, and we don't want wool. There is a story which was once told by a man who claimed that it was true,--it is substantially as follows: A man was once at the point of death from a severe hemorrhage. The doctor allowed ~~the~~ blood to flow from the veins of a sheep into the veins of the man, and in that way his life was saved. But his friends noticed that as he began to recover, his voice began to assume the characteristics of certain sounds heard in the pasture-lot; that sound became louder until it became decidedly sheepish in character. As he became a little stronger, so that he could readily lift up his head he made some very peculiar movements with it, and those movements were similar to what one sees among certain four-footed creatures. His hair came out in consequence of his prescription, and was replaced by wool, and as he progressed toward recovery it was observed that there was a sort of sheepish look in his face. Now I don't believe this story, but the one who told it asked the question, "If the blood of a sheep could have such an effect upon a man, how much greater effect could the flesh of a sheep have upon

upon the one who eats it. It would seem that if one were going to eat animals of any kind he should eat those which are the most like him. I was once talking in this manner to a company of little girls, and among other things, I said, "We don't need to eat oxen because we don't need horns; and we don't need to eat sheep because we don't need wool, and we wouldn't like to eat dogs although they are more like us than are oxen or sheep, because they eat animals,--so what animals could we eat--if we ate animals at all?" One little girl said, "Eat monkeys." I thought she had quite a sagacious mind. Certainly it would seem that if we insist upon regaling ourselves upon the flesh of any animal,it would be upon that of the monkey,--monkey-chops,or the flesh of something more nearly akin to ourselves than the flesh which is usually eaten.

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SANITARIUM PARLOR LECTURE, Apr. 7-98.

Foods,--Fruits and Nuts.

J.H.Kellogg, M.D.

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WE were talking, the other evening, about the dietetic uses of fruits, and called attention to the fruit-cure which has been much practiced in Switzerland and in some parts of France, particularly the southern parts, for many years. But the fruit- cure is not a modern cure; it was practiced by Pliny and Galen in the early part of the Christian Era, and in the Middle Ages it was very much in vogue among European physicians. Paracelsus treated his patients who suffered from intestinal troubles with a strictly fruit diet, and it is said that Linnaeus cured his gout by the employment of a strict fruit dietary for some time.. The grape-cure has been used for some time in Cincinnati, also in California in Fresno in the San Joaquin valley, where the grape-cure has been practiced successfully.

Now a word or two with reference to the grape cure: Patients generally begin with a half a pound a day and increase to eight or ten pounds; some patients take as high as fourteen pounds of grapes a day,--that is quite a considerable quantity. A pound and a quarter of grapes contains as much albumen as a single egg., so fourteen pounds of grapes would contain more albumen than a dozen eggs--or about the same amount as a dozen eggs.

One characteristic of grape -cure is the fact that persons who take this cure must take fruit when the stomach is entirely empty; taking no other food, with the exception of a dry crust. The fruit-cure physician insists upon his patient's abstaining absolutely from meat, eggs, cheese and similar foods and all rich sauces of all kinds, and all kinds of greasy foods and pastry. Now it is very evident that the practice of this method has been empirical. People found by experience, without knowing the reason why, that they must abstain from meats, etc. This is now a regular rule,--that those who are taking the fruit-cure shall eat no potatoes, no cheese, no meat, no eggs, no greasy foods and

no rich sauces. The reason of this is evident when we come to understand the philosophy of the fruit-cure, which I think were not understood until after the principles were developed: In experiments made in our Laboratory last year, we found the interesting fact that fresh fruit-juices have power to kill germs. Prof. Koch pointed this out three or four years ago during the cholera epidemic at Hamburg, as regards citric acid or the juice of lemon, but as regards the juices of other fruits, this fact was not known. We accidentally, or rather, incidentally discovered this fact while experimenting in our Laboratory last year, and I am glad to see that all though this country physicians are making use of this fact. A short time ago I heard a leading physician in Chicago, while teaching his class, call their attention especially to the fact that fruit-juices will kill germs. This idea is being disseminated,--and I recently picked up a New York medical journal and found in it an editorial which was entirely made up from an article published in Modern Medicine,--an article which I wrote a short time ago in relation to this subject--but it was copied into the New York medical journal without credit. However, we don't care so much about that, if we can get the truth disseminated throughout the world that a fruit diet will kill germs, as it will be the means of saving thousands of lives, and people who are leading miserable lives will by this means have their lives prolonged. At the present time we find people dying distressing deaths by that veritable fount of diseases, chronic rheumatism, which you will find attacking first one joint and then another, and then perhaps the patient's limbs are disabled so that he cannot walk, and then his hands will be disabled so that he can't write, then his elbows, then his shoulders will be disabled so that the slightest lifting of the arm will be in agony,--and then the back of the neck will be attacked--and I have seen patients with their heads clear over on their breasts and the slightest movement would cause pain; and this keeps on until the whole body is crippled and deformed, the limbs being almost tied up into the body, and inflammatory processes taking place in

the joints themselves. Now this disease and its congener, gout, and allied troubles, and sciatic rheumatism, another name for sciatic neuralgia--this is the same poison that causes rheumatism of the joints ,--the same condition which produces pain in the sciatic nerve sometimes produces pain in the joints, and sick headaches and nervous headaches and neurasthenia and chlorosis and disease in which the skin seems to have a brownish yellow color, and sometimes the lips are pale and bloodless,--anaemia, a disease which was always supposed to be due to lack of blood but which we now know to be lack of power to manufacture blood; the number of blood-corpuscles are sometimes reduced to less than one-fifth the normal amount. I have met a number of such cases,--sometimes not more than one-sixth the normal amount of blood-corpuscles were present,--and yet the person lived. We know that anaemia is due to lack of power to manufacture blood, and that this is due to the presence of poisons in the blood. Chlorosis is nearly the same thing. Neurasthenia is a state in which the body is poisoned; the patient feels as though he had no capacity for work, and he is afflicted with a chronic malaise,--he is chronically tired; he cannot summon his resolution to accomplish anything. This is simply because he is laboring under an incubus of poisons which he cannot throw off . He is poisoned just as much as the he had had morphia injected into his veins, and he is no more responsible for his weakness and disability than if he had had morphia slowly injected under the skin.

Then there is a disease commonly known as melancholia which lands so many people in the lunatic asylum. It begins with hypochondria; the patient becomes weak, debilitated and feeble in mind and body, and he is mentally depressed, and from that condition it is only a little step towards the point where the will can no longer restrain him from doing things which show a lack of discretion and from which you would say the person was no longer himself, and that he will soon be ~~in the~~ a lunatic ~~asylum~~ But really it is very difficult to draw the line between sane and insane people, for we are all more or less lunatic on some sub-

jects. I don't think I ever saw a man who was perfectly sane on all points,--it would be too much to expect of poor humanity. These diseases all come from one single root,--poisoning of the blood--and it is found that the grape -cure or the fruit cure is almost a panacea for almost all these diseases and conditions, simply because it kills the germs which produce the poisons and purifies the alimentary canal, and, as almost all the force-producing foods enter the alimentary canal,it is evident that if we can cleanse this cavity we will by that means most efficiently cleanse the blood, for, as the food is absorbed,it is no longer contaminated. I have frequently heard persons say, "My food does not seem to do me any good ;I don't gain any strength; my food all seems to go to flesh and I don't gain any strength." This indicates chronic toxaemia or chronic poisoning, a condition in which the body is laboring under the influence of poisons manufactured in the body.

There are certain germs which produce decomposition; these germs lodge in the stomach and obtain a foothold there, and thousands and thousands of them are always present in chronic catarrh of the stomach, and gastric catarrh, catarrh of the intestines or intestinal catarrh,--and this is a condition which is getting to be very common among the American people, but it is always a condition of infection, and the catarrhal masses which are present in the stomach and bowels,when examined through the microscope are found to be great masses of germs, as you sometimes see a great mass of ants, or of bees hanging on a tree in a swarm or crawling over one another in a hive; that will be the appearance of the mucus in the alimentary canal in these cases.. These are poisons with which the blood is flooded. No wonder such a patient is is irritable and sometimes seems to "lose his head " and becomes temporarily insane. I have met many a man who said, "When I eat my breakfast I become so irritable within two or three hours afterwards that I can hardly control myself." That man is simply suffering from poison in his blood to such a degree that he has become insane just as a sufficient quantity of coffee , tea or alcohol, Or cannabis indica will render a person insane.

Now fruit is one of the most effectual remedies for this condition. It is necessary, as I have said, to abstain from all foods which furnish a medium for the culture of germs, as they will then grow in spite of the discouraging influence of fruit-juices,--for these do not kill germs ; they simply furnish a medium in which germs cannot readily grow. If we combine meat, ~~which is~~ ~~is~~ albumen, or even potatoes, coarse vegetables and other starch-foods with fruit it encourages the growth of germs to a sufficient degree to neutralize the juice of the fruit; it must be a fruit diet, and if there is any addition it should be a granose biscuit or a bit of zwieback; such food may be taken with a fruit diet, in very small quantity.

To recapitulate: The fruit-cure is especially good in such chronic conditions as neurasthenia or nervous prostration. I used to think that there was a special energy in fresh fruit, and a great many people have gotten the idea that there is a living energy in fruit, and that if one takes fruit fresh, alive, that there is a living energy imparted to the body by it. But this can only be a fancy, for the reason that energy is a thing that goes only with matter; it is not an ethereal thing that can pass off or evaporate like steam. Energy is a thing that stays with matter, so we cannot imagine that energy evaporates from fruit. Live fruit has more power to kill germs than cooked fruit, hence live fruit has more power to disinfect the alimentary canal than cooked fruit. A baked apple will ferment and mold in eight hours, but the live apple will remain weeks and months without molding, because it has power to resist germs. You make take a raw potato and cut it in two and place a baked potato, cut in two, beside it, and the baked potato will, in a short time, become sour and moldy, but the live potato will not be moldy because germs cannot grow on athar living surface. Plant germs on the flesh of a live apple and they will not grow readily, while they will grow readily on a baked apple. So we see that live fruits have power to resist germs.

Now see how beautiful this is: When this live fruit is eaten it

is at once converted into live tissue-juices and then into live blood and live brains and tissues,with no chance left for germs to feed upon it or to decompose it; that opportunity does not come to them,because live fruit is directly converted into live tissue-juices, whereas,if the fruit has been killed by the process of cooking, it must pass through the process of revivification,--it must be revitalized by the process of digestion before it has power to resist germs. But living fruit, when taken into the stomach,has power to resist germs,for, in a moment, it is converted by the digestive process into living,vital fluid.

Live fruits kill germs, as do live vegetables,-as the potato, when raw. Then why not live upon raw potatoes? Because we have not power to digest raw starch . But we can live on live apples when ripe,because the starch is already digested,- the starch has passed through a preliminary process ~~the process~~ of digestion in ripening, the same as food is partially digested in the stomach. This preliminary process of digestion of fruit prepares it in the most admirable manner for the human stomach and fits it admirably for purifying the stomach and furnishing it also with the best possible pabulum,--but I was going to say a few words about nuts.

There is an old adage or saying that certain things are "as sweet as a nut:" Now is there anything more delicate and toothsome than a choice nut? But nuts,notwithstanding they are so delicate, delicious,sweet and wholesome, have suffered some discredit,--and I think I must say the same of fruits; they have been relegated to the "Questionable" list of things which are called "desserts." Desserts, as a rule, are unwholesome, and for that reason,perhaps , are left until the last thing,--and so they spoil the whole meal. This is the devil's scheme,--to get the most digestible things first in a meal,and the most indigestible things last on the bill of fare--leaving for the end of the meal that which will spoil the whole meal. I am not referring to the Sanitarium bill of fare,which is simple and wholesome,and is intended to furnish a substitute for the ordinary,unwholesome desserts which are made so rich and so indigestible by the method of preparation. Nuts are generally saved for dessert and are generally eaten

after a person has already eaten too much, a fit of indigestion follows, and the consequence is that nuts have acquired the reputation of being indigestible,--and , I must say,that nuts, in their natural state,are to a considerable degree indigestible,for they are furnished to us in a dry state. All kinds of dry nuts are hard to digest because they are hard and crisp,and in the process of mastication, we are such a hasty people and eat in such a hurry that we do not chew such food properly. Besides, there are very few people who have sound teeth; there are very few adults in America who have teeth that are sound enough to chew nuts properly, and the consequence is, that instead of being reduced to a cream-like consistenty they are swallowed in chunks and masses, and a nut when swallowed in this form is absolutely indigestible. Walnuts, chestnuts,or any other kind of nut which is swallowed in chunks and masses,no matter if they are not larger than a pin-head, they will pass through the alimentary canal unattacked by the digestive fluids. It has been shown by examination under the microscope that any small particles of nuts which have not been thoroughly reduced to a creamy consistency,--that all such particles of food pass right through the alimentary canal without digestion, hence they produce indigestion. Sometimes they undergo a certain amount of putrefactive change in the alimentary canal,and thus produce serious indigestion.

But nuts, considered from a dietetic standpoint , are the most highly nutritive of all our foods. There is to be found in the nut, in almonds, nutrition in great abundance. Nuts contain just what fruit lacks,so they are nearly the complement of fruit. In fruit we have abundance of sugar,but no fats, whereas the nut contains fats. We have no acid, almost no starch and almost no sugar in nuts, ~~but~~ In nuts we have just the complement of fruit. We have in fruts,acids, sugar and fluid in abundance, while in nuts we have abundance of fats,albumen,and but very little sugar, and in fruits, as I have said, we have abundance of sugar , water, and acids.. And we have,in both nuts and fruits a very small amount of starch. In a few nuts we have an abundance of starch,--especially the chestnut,in which we have about 70% of starch;

in the walnut we have about 14% of starch, and in the cocoanut and the almond we have 4%- 8% of starch, and in the remainder of the nuts there is almost no starch at all. So we find a fruit and nut dietary wonderfully adapted to patients who cannot digest starch. In this dietary, as a rule, we have foods which have no starch, or we have the starch which they contain already converted into ~~sugxxxxxx~~ dextrin, so that, as a rule, by the use of this diet, the process of starch digestion which takes place first in the stomach and later in the small intestine, is rendered unnecessary; and a person suffering from starch indigestion or amylaceous dyspepsia can eat fruits and nuts with impunity and find himself entirely relieved of the uncomfortable sensations consequent upon taking starchy vegetables.

We have in nuts, as I have stated, a large amount of albumen, a thing in which fruits are lacking, and which are supplied by the grains in very limited quantity. In the peanut, for example, we have as high as 28% of albumen, and only 19% in beefsteak. So, in the peanut we have 50% more albumen than in beefsteak; so that in a pound of peanuts we have a pound and a half of beefsteak with other good things added. So one will find abundance of beefsteak in nuts without murdering an ox or a cow, and without subjecting any other animal to any sort of pain or torture; without taking the lives of any animals we can find an abundance of the nutritive elements found in meats. In fish, we have only 16% of albuminoids, whereas, in beefsteak we have 19%, and in chickens we have only a small amount, whereas, in the peanut, as I have said, we have 28% or about 50% of albuminoids more than is contained in the best beefsteak. In almond butter we have 23% of albumen or 25% more than in the best beefsteak. So, in the peanut and the almond, we have a complete substitute for beef. In the filbert and the hazelnut we have 14%-17% of albumen; in the filbert, the chestnut and the hazelnut we have almost as much albumen as we have in beefsteak. Nuts are all rich in ~~these elements~~ albumen, so that, on the average, a pound of nuts contains as much beefsteak as a pound of beefsteak in addition to the other good things which they contain. In addition to the large amount of albumen which nuts contain, we have a very large proportion of fats; with the ex-

ception of the chestnut, fat is found in abundance in nuts; in the chestnut we have starch instead of fat, and this is almost the only exception to the rule. For this reason the chestnut can be manufactured into bread.. The natives of Italy use chestnut-flour gruel, especially in times of famine, they also bake it into cakes. The chestnut flour is made into dough, and it is then baked into thin cakes, and it then forms really a very delicious food. The only objection to it is, that it becomes slightly bitter when kept for some time. I have tried to get good chestnut flour, but I always find it a little bitter after a time. In Lombardy and some other portions of northern Italy ordinary flour is mingled with chestnut flour in the proportion of one part chestnut flour to two parts of ordinary flour, a mixture which makes a delicious bread. The ancient Romans lived almost exclusively upon chestnuts. The ancient Arcadians, as historians tell us, lived upon acorns, a nut which is allied to the chestnut. The sweet acorn might be regarded as a starchy nut. They may be soaked in water until the bitter principle is removed, then dried, ground and baked, and they make a very palatable bread. In some portions of Scandinavian countries, especially in times of scarcity, acorns are largely used. Hogs are fattened on acorns, in some localities, and deer become very fat in the fall from eating largely of acorns.

In other nuts we have fats in place of starch,--for example we have in the peanut and the almond more than 50% of fat; the same is true of the hazelnut and the filbert. We have about 60% of the most digestible and purest of fats in these nuts. These fats are found universally in nuts with the exception of the chestnut, which, as I have said contains an abundance of starch and is closely allied to the acorn. We find these fats in nuts in a state of emulsion, instead of being separated, as in olive oil. If we crush a nut we may mix water with it, and it can be diluted ad libitum; crush an almond, for instance and it makes a milky paste which can be diluted, and it is wholesome. This is the condition to which fat is brought by the process of digestion. So in nuts we have fats in a digested state, and when taken as a food, it is all ready to be at once assimilated, so it does not interfere with the

process of digestion in the stomach. When ordinary fat is taken into the stomach it floats upon the surface, smearing over the contents of the stomach and thus hindering the action of the digestive fluids upon the food, and the consequence is that we have indigestion. This floating fat ferments and decomposes,--and it also harbors germs. Germs are rolled up in these masses of fat which are retained in the stomach, and so we have butyric acid fermentation and heartburn, the stomach becomes rancid, and, in consequence, we have gastric catarrh. That is the reason a person suffering from gastric catarrh cannot take fats, butter, lard, pastry, and things of that sort. Doctors are universally compelled to forbid fats for persons suffering from gastric catarrh, by reason of this inability to digest fats.

But in nuts, we have fats in a condition in which they can pass through the stomach mingled with the food, just as cream will mingle with water, without any interference with the process of digestion in the stomach, and can pass to the small intestine where the pancreatic juice and the bile act upon it and complete the process of digestion so far as is necessary to secure prompt absorption. The fat being divided up into small particles, is acted upon by the digestive fluids at once, whereas if fat is taken in a fluid mass, it is only after a long process of churning and manipulation by the stomach and the intestines that the particles of fat can be mingled with the digestive fluids. Now suppose I had in a bottle some nut-cream and pour in a little water or bile, or pancreatic juice,--the nut-cream at once mingles with it completely; this action takes place immediately, because the digestive fluid comes in contact with all the particles of the cream at once, whereas, if I have some oil and pour in some bile or pancreatic juice, they do not mix; the oil is in one place and the bile or pancreatic juice is in another place and I must shake it up for a long time before any mixture can take place. So, when we take fats in their natural state, the process of digestion is a very short one, and, in the meantime, while the fat is in transit from the stomach to the intestine, it does not interfere with the digestion of other foods.

Now it is a very important fact, and a fact with which every one

who suffers from chronic indigestion ought to be acquainted,--the fact that nuts present fats in the most digestible form in which they can be found; fats are not to be found in any form so digestible as we find them in nuts--that is, fats with the exception of milk,which,for many people furnishes a digestible fat,--but not for all people. The casein of milk produces biliousness for some people; biliousness simply means an accumulation of poisons. Another important fact to which I wish to call your attention,is the fact that nuts contain no starch product, but since they contain a large proportion of fat and albumen,we have the perfect analogue of meats in nuts. We have in nuts what we might call vegetable meats. We have,in the almond and the peanut, and in all these various nuts, food-substances which correspond,in their chemical composition, in their nutritive values and in their uses in the body,--we have in nuts,food-substances which correspond absolutely to fat in meats--for example,here is bacon: the somposition of bacon is almost exactly that of the almond,--that is, fat bacon; in fat bacon we would have about the same proportion of fat as in the almond, in addition to which we have proteids,etc. Some doctors prescribe bacon for persons who are thin and emaciated. Now we have in the almond everything that we have in bacon, and we have the fat,instead of being in a free state,--in the form of grease, oil, lard, or melted fat--we have it in a digested or emulsified state, ready to digest promptly and without the possibility of interfering with the digestion of any other food.

Now the difficulty with nuts is the difficulty of masticating them and preparing them for stomach and intestinal digestion. For a long time writers upon dietetics have been saying that nuts furnish a vast amount of nutrient material,and which could be utilized if these nuts were only available. And the fact has also been brought out that nuts are rendered more digestible by cooking. But,unfortunately,methods have not been devised until recently by which this process has been rendered practicable. During the last ten or fifteen years,however, a method has been hit upon for the proper preparation of nuts for food. It has been found that they must be cooked above the ordinary temperature of boiling

water, in order to bring out some of the peculiar characteristics of the nut. I have found, as the result of some thousands of experiments, that the peanut, when properly prepared, after being subjected to a temperature of about 230," that the peanut contains all the flavors found in ordinary meats, and that it is possible to so treat the peanut as to get rid of the ordinary peanut flavor entirely, and at the same time develop the osmazome or flavors of meats.

I had the pleasure of taking a vegetarian dinner in Chicago the other day, at the request of Mrs. Stevenson who has been here, and who, I believe, has become an enthusiastic vegetarian. Upon sitting down to the dinner, one lady remarked that she thought we were going to have turkey; that she thought she had been smelling turkey. The nuttose which was being cooked produced an aroma almost like that of cooked turkey. Well the nuttose was served in the form of thin slices nicely toasted, and a friend who sat near me was almost sure he was eating broiled bacon. It is certainly true, however much you might disagree with me, that these food-substances resemble flesh-meats; they certainly resemble flesh-meats as nearly as they ought to. They don't have any decay or decomposition, nor any "haut gout" which the French talk about so much, and which means a state of high rottenness, but in these nut-foods you do have all the good qualities of meat, and you may produce from them the flavors of meat to an astonishing degree. I am sure that many of you who have tasted nuttose must have been surprised at the re - semblance of its flavor to that of meat; it is a perfect substitute for meat, because it has all the good qualities which meat possesses, but does not have the bad qualities which are found in dead flesh, hence nuts furnish all the advantages which are to be found in meats.

Nuts can be prepared in different ways. Nuttose is cooked under a steam pressure of about 230", which is preferable to preparing it by boiling it for eight or ten hours. Peanuts can be prepared in about eight or ten hours so as to be palatable; they must be cooked longer than any other nut,--because the peanut is really not a nut at all--it is a legume; it belongs to a class of foods which is closely allied to peas and beans. In China they have a bean which contains 18%

of fat,--the "soja" bean, which is largely used as an article of food by the Chinese. But this bean does not compare with the peanut in the nutrient materials which it contains. The peanut is largely used for food in the German army. Some thousands of tons of peanuts are annually shipped from this country to Germany and France. Some of these peanuts which have been shipped to Europe come back to us in little bottles labeled "Superfine Olive-Oil." This is simply oil made from American peanuts; the dried residue is ground up into meal and used as rations in the German army in the form of soup which possess a high nutritive value. The peanut is also largely used in German hospitals for the purpose of making soups ; and it is, certainly, one of the most nourishing of all foods. But when treated in this manner it is bitter and not very palatable. This bitterness mostly resides in the skin, and by getting rid of every particle of the skin this bitterness is gotten rid of.

Now, of all the food-elements, fats, with the exception of albumens, is the most important. We can get along very much better without starch than without fats, because fats can completely replace starch, whereas starch cannot completely replace fats. One can live a long time upon albumenoids, dispensing with starch, but we cannot get along without fats. Vegetarian diet is generally too poor in fats. In nuts we have a substitute for all kinds of animal fats; there is no necessity whatever for the employment of any kind of animal fats when one supplies himself with nuts. I have recently been gathering information from all parts of the world in reference to nuts, for I have been studying the nut for years,--and I have finished the study yet--and have gathered many interesting facts in relation to nuts which were not known before. I find that both chestnuts and peanuts are largely used in China; nuts are used there in many curious ways; Nut-preparations which I thought were only known to the Sanitarium have been employed on the other side of the world for centuries.

I want to call your attention to the fact that in fruits and nuts we have an absolutely complete dietary: We have in fruits, the sugar the dextrin and the acid, and in nuts we have the albumens and the fats. So

by combining these two foods we have a perfect dietary, and a person, if he will, can live upon a dietary of nuts and fruits. They also have the advantage of stimulating intestinal activity. Nuts are slightly laxative in their effects; they are slightly laxative without being bulky and irritating. The fat of nuts is itself slightly laxative. A little olive oil, you know, has a laxative effect. So does peanut oil, almond oil, etc. All nut-fats stimulate the liver and encourage the process of digestion, and persons suffering from dryness of skin, emaciation and wasting disease find their condition rapidly changed by adopting a dietary of nuts. So I recommend this dietary to you, if you are suffering from biliousness and headache, if you are thin and emaciated, if you are suffering from neurasthenia or chronic nervous exhaustion, and if you want to gain flesh as rapidly as you can, and if you want to make blood as rapidly as possible; there are no foods which are capable of doing this as rapidly as are nuts, because there is no difficulty from indigestion of starch and we have the fat ready for assimilation. The albumen of nuts corresponds almost exactly with the the albumen of egg and milk, and in nuts we have a large amount of vegetable casein and vegetable albumen which are easily digestible and readily assimilable.