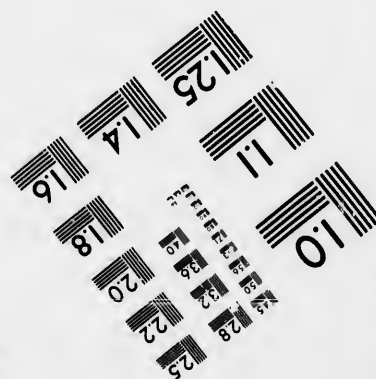
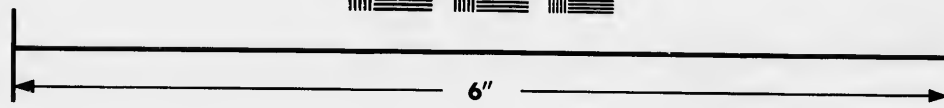
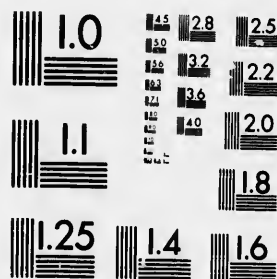


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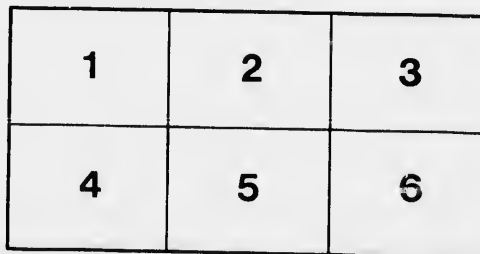
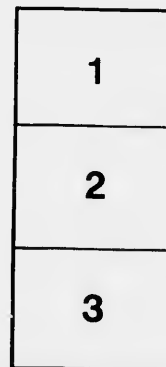
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# THE NATURE, PREVENTION, AND CURE of CONSUMPTION

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In order to make the views I hold concerning the nature and treatment of Consumption quite intelligible, it will be necessary to previously consider the natural changes ever going on in the body, and the meaning of the terms *HEALTH, DISEASE and CURE*.

## DECAY AND RENEWAL OF THE BODY.

Regular and sufficient supplies of water, food and air are essential to the continuance of life. An adult man requires for this purpose, in the course of a year, more than three thousand pounds of materials; an amount equal to about twenty times his own weight. He consumes eight hundred pounds of solid food, absorbs from the atmosphere an equal weight of oxygen, and drinks about fifteen hundred pounds of water. An abundant supply of air is needed every moment; food and drink must be taken at frequent intervals. Why is the demand so imperious? The modern physiologist declares it is because the essential condition of life is death. Decay is more truly a part of life than it is of death, because it goes on during all our physical existence; but after dissolution it ceases, when the work of decomposing the organic particles of which the body is made up into inorganic elements has been completed. The living body is like the flame of a lamp, continually fed, but as continually wasting away. It is like a noble mansion, built of wonderfully wrought but perishable materials.

Modern science has exposed the fallacies of the old physiologists, who believed that the vital principle en-

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dowed the body with the power to resist change. On the contrary, the organism of man submits to unceasing waste, and if proper supplies are withheld, it soon perishes. Thus it is absolutely true that our bodies are ever dying. The difference between this ever-occurring death and finale dissolution consists in the fact that, in the first instance, no sooner does one atom of a healthy body die than another living atom is supplied from the blood to take its place. In the second instance, the whole fabric returns to dust as it was.

### HEALTH, DISEASE AND CURE.

Animal life is carried on by virtue of certain internal functions—Respiration, Digestion, Absorption, Circulation, Assimilation, Secretion, and Excretion. Now, when the food, water and oxygen that the body requires for its support are subjected to these processes, they undergo two separate and distinct series of changes, progressive and retrogressive. In the first series the nutritive materials are digested, absorbed, changed into living blood, and then become incorporated with the body; so that the food we consumed a few hours ago, now forms part of the organs by which we see, think, hear, feel and move. After these matters have remained in the body a certain length of time as living tissue, they begin to pass down through retrogressive changes, by which they are finally fitted to be expelled from the body as inorganic, waste matter. Now when these two series of changes occur perfectly, in regular order, the result is perfect nutrition, or absolute health. When they are carried on imperfectly or irregularly, the result is imperfect nutrition, or disease in some form.

Or another view may be taken of the same truths. We have already seen that the body, during life, undergoes ceaseless decay and renewal. When it decays rapidly, when the waste is perfectly and quickly removed and the places of dead atoms supplied by new highly vitalized particles, then the bodily powers arrive at their highest development, and the most perfect health is at-

tained. The complete cessation of vital decay and renewal is death, the partial cessation of these is disease. After death, the body decays as it does during life, but renewal is at an end. In disease, both these processes are slow and imperfect. The removal of chronic disease, therefore, demands that the means employed be capable of bringing about the rapid decay and complete renewal of the body.

### THE EFFECTS OF EXERCISE ON HEALTHY PERSONS.

The beneficial influence of exercise on health is universally admitted. Infinite Wisdom has inseparably connected physical toil with man's earthly existence. Early in the history of the race, the Creator said: "By the sweat of thy face shalt thou eat bread." The riches of the wealthy do not exempt them from the common lot. This truth is tersely embodied in the proverb: "The poor man must work to find food for his stomach; the rich man must work to find a stomach for his food." The superior health enjoyed by those accustomed to active life, often, in spite of many injurious habits, conclusively proves the value of exercise for the preservation of physical vigor. The toil of a healthy man deepens his breathing, strengthens his muscles, sweetens his rest, purifies his blood, and secures a vigorous circulation,—in short, it keeps up in his system all those vital and chemical changes, the perfection of which is essential to health and strength.

### THE EFFECTS OF EXERCISE ON INVALIDS.

The above universally recognized truths frequently induce physicians to prescribe exercise for consumptive and other invalids, without instructing them as to the kind or quality adapted to their condition. They seem to forget that exercise has its laws that cannot be disregarded with impunity, at least by invalids. It would be almost as wise to expect good results by ordering a sick man in need of medicine to enter a drug-shop and

take a dose of the first mixture he saw, as to advise sick folks indiscriminately to exercise as a means of cure. The truth is that, although muscular exertion is admirably adapted to preserve the vigor of healthy persons, it is ruinous to invalids after they have sunk below a certain point. There are multitudes who feel deeply their need of the health-giving influences of exercise, who are bitterly conscious of being injured every time they indulge therein. For instance, a consumptive is advised to exercise; he accordingly makes what is, to him, a dangerous experiment—he walks, swings dumb-bells, practices gymnastics, and, too often, instead of being benefitted, his condition is made worse. How can he escape being injured by that which quickens his pulse, hurries his breathing, disturbs his sleep, increases the congestion of his lungs, and exhausts his nervous energies? The explanation of this is that general muscular action is unduly exhaustive of nervous power. Exercise affords such persons little or none of the invigorating effects that flow to the healthy worker from his toil. Their meagre nervous energies are rapidly exhausted. Exercise prostrates them instead of inducing an agreeable sense of fatigue, which rest readily relieves; it weakens rather than strengthens, because it occasions a waste of nerve and muscle that they have not the vitality to repair. Yet, although such sufferers cannot profitably exercise, they are more urgently in need of it than those who are well; they need the deep breathing, strong muscles, sound sleep, keen appetite, pure blood, vigorous circulation and quiet nerves—in short, they need the perfect nutrition, the rapid bodily renewal, which is the constant attendant of well-regulated muscular activity. For example, if an individual in whom tubercular lung disease is being developed, tries to make the vigorous use of his muscles that his case demands, and without which a cure cannot be obtained, it will still farther shorten his impaired breathing, increase the frequency of his pulse, and send the blood to his congested lungs with so great a rush that it often finds vent by bursting from these weakened organs.



## WHAT THE MOVEMENT CURE CAN DO.

But the medical specialty, known as the Swedish Movement cure, gains for the consumptive invalid all the good effects that flow to the strongest persons from exercise without subjecting them to the injury it so often inflicts on weak persons. This treatment can expand the chest, increase the play of its walls, draw away from the lungs the surplus blood by which they are loaded, and distribute it equally throughout the system, bring all the muscles, group after group into vigorous localized action, improve the appetite, and increase the digestion and assimilation of food, at the same time that it deepens and prolongs the breathing, reduces the frequency of the pulse, and husband the nervous energies; the weakest patient is never conscious of fatigue, on the contrary he grows stronger daily. The intelligent reader will readily perceive that treatment capable of attaining these objects, must be highly curative in the disease under consideration. All the resources of hygiene are, of course, combined with it.

## THE SYMPTOMS OF CONSUMPTION.

The early symptoms of this formidable disease are too often overlooked; or, at least, attributed to other than their real causes. In fact the sufferer usually ignores them as long as possible.

It is astonishing how often consumptives succeed in blinding themselves to the true nature of their disease. They may frequently be observed well advanced in the second stage, still imagining that all their difficulties are caused by some trifling affection of the throat.

Every case has its peculiarities, both in the beginning and during its progress; the symptoms, however, generally arise as follows:—

At first slight shifting pains are usually felt in the lungs, often amounting only to a feeling of uneasiness. A sense of tightness across the chest is experienced. The breath becomes shortened; this is particularly

noticed when any extra muscular exertion is attempted. There is often a sense of chilliness during the forepart of the day, with a feeling of feverishness toward evening. The circumference of the chest slightly diminishes; its walls lose their elasticity. The collar bones become more prominent. Flesh is slowly but steadily lost. Digestion is less vigorous than formerly. Nausea is sometimes present. The appetite falls off. A very slight tickling cough exists on rising in the morning. The pulse becomes habitually more frequent. Bleeding from the lungs is common. In many cases, however, this never occurs from first to last. In women the first symptom that excites alarm is often the gradual cessation of the menses.

Consumptives usually date the beginning of their disease from the time a cold was caught; an opinion that is sometimes right but frequently wrong. An ordinary cold, however severe, never gives rise to tubercular consumption in a really healthy person. When a man whose breathing organs are quite sound, takes a cold that "settles on his lungs" he suffers more or less from such symptoms as lassitude, muscular pains, backache, headache with tightness across the forehead, sore throat, hoarseness, feverishness, thirst, loss of appetite, the water runs from his eyes and nose, he coughs hard and expectorates profusely. These all pass away in a few days usually with little or no treatment. If the cough is somewhat more obstinate it is readily cured by any cough mixture.

But the approach of the disease under consideration is most insidious; it is not heralded by any of the above well-marked symptoms. A consumptive cough, as before stated, begins as a slight dry hack on getting out of bed; or, perhaps, it is excited at first only by leaving a warm room and going out into the cold air. Afterwards a little watery or gluey matter is raised; this gradually becomes thick, heavy, yellow and copious.

If a young adult has a cough of this character, with wandering pains through the chest, and loses flesh even

slightly, he is in all probability consumptive. If besides these, he has raised bright red liquid blood, even in very small quantities he is almost certainly so. As this cough is caused by small specks of tubercular matter in the lungs, it is never improved by cough medicines, but commonly goes from bad to worse in spite of the most skilfully compounded mixtures.

The symptoms that characterize the later stages, are too well known to require mention; a few of the early indications only are stated; to these the reader's attention is particularly directed.

### WHAT IS CONSUMPTION?

Pulmonary consumption is a constitutional disease manifesting itself chiefly by certain changes in the lungs due to the deposit in them of tubercles.

### THE ORIGIN OF TUBERCLES.

When food is received into the stomach, although inside the body, it is still truly external to the animal system—the scene of life. Before it can get there and become conductive to bodily nutrition, it must pass into the blood. Nutritive matters that are soluble in water readily find their way from the stomach or intestines through the coats of the blood-vessels. But food that is soluble only in the digestive juices, like bread or beef finds its way into the circulation by a more circuitous route. After digestion it is taken up by the lacteals and poured into a set of vessels and glands, by which it is conducted into the blood. While the digested food is still in the alimentary organs, although it has undergone very important changes during digestion, it is still only dead matter. Vitalization does not begin until after it has been received into the lymphatic vessels, while passing through these and the mesenteric glands, it becomes progressively endowed with life. Leaving the lymphatics, it enters the current of the venous blood ever pouring to the lungs, where the vitalizing process is completed by exposure to the respired air. Thus the food that was eaten a few hours before, now becomes rich, red

arterial blood, if everything has gone on properly. All the vital changes that food undergoes in becoming living blood—whether these changes occur in the lymphatics, the mesenteric glands, the liver, or the lungs—they all require the presence of an abundant supply of oxygen. A definite quantity of this vital gas is needed to complete the vitalization of a given quantity of food. An adult man requires about two pounds of solid food per day, and about the same weight of oxygen. Therefore we will not be far from the truth when we say that an atom of food requires to be acted on in the body by an atom of oxygen in order to effect its vitalization. If the supply of oxygen is deficient, some portion will either partially or not at all undergo the needed vital changes. But the course of this imperfectly elaborated material cannot be stayed; it must pass from the blood into the solid parts to supply the waste of muscle, brain, nerves, etc.; the materials that are thus furnished from the blood of persons who breathe too little are badly fitted for their duty. The body is worn out, and is imperfectly renewed by matter possessing a low degree of vitality, which, in consequence of imperfect elaboration, has failed to reach the high organization of truly living matter. Some portions of it are so inadequately endowed with life that they cannot be used in the living body. Therefore it is deposited in various parts in the form of yellowish specks of cheesy-looking matter called tubercles. When they occur at the base of the brain, they give rise to that fatal disease of children, known as "water on the brain." When they fall on certain glands, forming a part of the alimentary apparatus, they produce "Marasmus," another disease of children. When they are deposited about the knee-joint, they cause white swelling, and when they accumulate in the lungs they give rise to pulmonary consumption.

These views concerning the origin of tubercles are strongly corroborated by the following fact:—In making post-mortem examinations of persons who died of consumption, tubercles of several different kinds are found

in the same subject; some of these having been deposited during the initial stages of the disease, before the breathing power was much impaired, bear evident traces of organization, having attained a low degree of vitality. This variety has a tendency to contract, and remain in the lungs without doing much injury. But as the disease progressed, and the breathing power diminished, tubercular matter occurs, evincing less and less organization, and manifesting an increasing tendency to soften and break down, until at the last we find masses of crude yellow tubercle, that cause inflammation and softening almost as soon as deposited. These facts, taken in connection with the immunity from consumption enjoyed by those whose respiratory organs are well developed and properly used, as well as the beneficial effects that are promptly secured to consumptives by any increase of the breathing capacity, I believe fully justify me in stating that *tubercles are the result of defective nutrition, directly traceable to inadequate respiratory capacity, either congenital or acquired; or, to speak more plainly, tubercles are composed of particles of food which have failed to acquire life while undergoing the vital processes, because the person in whom they occur habitually breathed too little.*

### IS CONSUMPTION CURABLE?

That there are numerous recoveries from consumption has often been proved by *post-mortem* examinations of persons who died of other diseases. There are frequently found in the lungs old dried tubercles, and sometimes the scars of cavities from which masses of tubercular matter have been ejected; showing that the individual did, at one period of his life, recover from what is usually called the second or even the third stage of consumption.

It is astonishing how large a part of the respiratory organs may be rendered useless by this disease, and yet the invalid both live and enjoy life with what remains.

Tubercles must always be unwelcome occupants of the living body; but, if they do occur, it is better to have

them in the lungs than in almost any other organ, because nature has furnished us with more lung than is absolutely needed to sustain life. A few score tubercles may, and do often exist in the lungs without causing enough disturbance to attract attention, but the same amount existing under the mucus membrane, lining the digestive apparatus would cause severe symptoms, while, if they were situated in the brain or spinal cord, fatal results would promptly follow.

A moderate amount of tubercle in the lungs need not discourage any one. A single deposit of tubercular matter is never fatal, if it can be prevented from increasing by fresh accessions from the blood.

### **THE CURABLE AND INCURABLE VARIETIES OF CONSUMPTION.**

There are two kinds of Consumption, acute and chronic. The acute variety runs its course in from three to twelve weeks. The chronic usually lasts from one to three years, and may continue five, ten, or even twenty years. Acute Consumption is uniformly fatal. My experience, however, in observing what the movement cure can do in this disease, justifies me in stating that the chronic variety is readily amenable to timely treatment. The slower a person loses ground the greater is the probability of his recovery, that is to say, if a consumptive has much tubercular matter rapidly deposited in his lungs, which soon begins to soften and break down, his case is very likely to terminate fatally. But if his disease progresses slowly, although his lungs contain tubercles that have undergone softening, if he has not lost much flesh, he stands a good chance of recovery under the movement-cure treatment, and a certainty of being materially benefitted, life being frequently prolonged for years.

### **ILLUSTRATIVE CASES.**

**CASE I.**—When Miss B. consulted me she stated that her health had been quite good until within eight weeks. About that time a slight cough began, which had lately

become quite harassing, especially at night. I found her pulse beating 120 per minute. Since her illness began her weight has diminished from 110lbs. to 94lbs. She had a distinct chill, followed by a hectic flush every day. Her appetite was entirely gone, she expectorated copiously, and the upper parts of both lungs were full of harsh, rattling sounds. I informed her friends that their worst fears would probably be realized, and reluctantly undertook her case at their earnest request.

CASE II.—At the time when Miss M. placed herself under my care for treatment by the movement cure, she had been declining in health nearly three years. The symptoms of which she complained were shortness of breath, sleeplessness, pains in the chest, loss of strength, cough, expectoration, latterly cold perspirations had occurred every night. She had raised blood in small quantities, frequently, during her illness. Her weight, however, had not seriously diminished, as she had a fair appetite until lately, when it fell off, and she became subject to nausea and sometimes vomited. The breathing sounds heard in the lungs indicated the presence of softening tubercles. In fifteen days treatment there was an encouraging amount of improvement, and at the end of eleven weeks she was so well that further treatment was deemed unnecessary. A few months after, this young lady married, and has since enjoyed good health.

The difference between these two cases can be seen at a glance,—one was almost rapid enough to be classed as acute consumption. The other was a chronic case that advanced slowly. Nothing could be effectually done for the former,—the latter got quite well.

### THE PRINCIPAL DIFFICULTY IN EFFECTING CURES.

As consumptives are slow to admit that their disease is serious, they are equally slow to adopt thorough treatment; and when at length a physician is consulted, he can rarely do anything but prescribe remedies that, at

most, palliate symptoms, often failing to do even that. I rarely see a consumptive professionally, until he has given a prolonged trial to cod-liver oil, pancreatic emulsion, stimulants, etc., then his case is too often so desperate that little or nothing can be done. Yet I have often attained brilliant results even in those who tried my services as a last resort.

If the Movement Cure Treatment was everywhere accessible, and if persons suffering from incipient consumption would resort to it while the disease is still in what is called the "first stage," (although this is truly the second stage), before softening of the tubercles had taken place, very few cases of chronic consumption would proceed to a fatal issue.

### THE RATE AT WHICH THE BREATHING POWER DECLINES.

The following table exhibiting the gradual decline of the breathing capacity in consumption, is the result of investigations made by Dr. Hutchison, an eminent English physician. The quantity of air that can be expired after the most complete inspiration, he terms the vital volume or vital capacity, indicated in cubic inches:—

Height.	In Health.	In First Stage.	In Second Stage.	In Third Stage.
5 feet 1 in.	174	117	99	82
5 " 2 "	182	122	103	86
5 " 3 "	190	127	108	89
5 " 4 "	198	133	113	93
5 " 5 "	206	138	117	97
5 " 6 "	214	143	122	100
5 " 7 "	222	149	127	104
5 " 8 "	230	154	131	108
5 " 9 "	238	159	136	112
5 " 10 "	246	165	140	116
5 " 11 "	254	170	145	119
6 " 0 "	262	176	149	123

This table shows that, even in the very earliest detectable stage of consumption, the breathing power declines nearly one third, and in the second and third



stages the deficiency is still more marked. It is quite common to observe consumptives, the circumference of whose chests has diminished from one to three inches since the beginning of their disease. This fact is so evident that a resort to measurements to prove it, is scarcely necessary. Observe a consumptive or an individual, who, being well, is afterwards attacked by the disease; his chest is almost invariably narrow and hollow; its walls are rigid; they rise and fall but little even during forced breathing. With a pair of lungs thus cooped up in an unyielding box, it is impossible to get into the blood the quantity of oxygen needed for the vital purposes. Every one knows that the breath of consumptives becomes shorter and shorter, until at last it ceases altogether. This is his chief difficulty; all the other distressing symptoms flow from this; as his respiratory power diminishes, they are aggravated; if by any device it is increased, they promptly improve.

### THAT WHICH CONSUMPTIVES MOST URGENTLY NEED.

If, then, pulmonary consumption is caused by, and carried to a fatal termination, mainly because of inadequate respiratory capacity, it necessarily follows that the true treatment must consist in measures adapted to increase that power. There is, doubtless, an inherited predisposition that often has something to do with the development of consumption; but I feel confident that this congenital tendency would rarely be developed if the breathing powers were carefully and scientifically cultivated.

The inhalation of pure oxygen has been recommended to supplement the impaired breathing capacity of consumptives; but this treatment has never been productive of anything but injury. The reason is obvious. The Creator made a hundred parts of atmospheric air to consist of about twenty-one parts of oxygen, and seventy-nine of nitrogen; these proportions cannot be altered so as to make the mixture more suitable for breathing

either during health or disease. Consumptives do not need condensed air, artificially organized air. *They need pure fresh air, and power to breathe enough of it.*

In order to secure this, the capacity of the chest must be enlarged, the motions of its walls restored, so that they will readily and fully expand with every breath. The requisite quantity of fresh air will thus be secured without perceptible effort. The respiratory muscles must be invigorated, and the blood circulation controlled. In proportion as these indications are accomplished, the breathing becomes calm and deep, even when indulging in exercise. The blood is abundantly supplied with oxygen. The life forces no longer languish for want of this vital gas, their natural stimulus, and the symptoms of disease give place to the evidences of returning health. In many cases all these ends can be accomplished by the medical specialty known as the Swedish Movement Cure.

#### THE OPINIONS OF AN EMINENT PHYSICIAN REVIEWED.

Dr. Chambers, Physician to H. R. H., the Prince of Wales, says:—"It is truly by the aid of the digestive viscera alone, that consumption is curable. The chest is the battle ground of past conflict, the stomach the ripening ground for new levies of life; your aim should be to get the greatest possible amount of albuminous food fully digested and applied to the purpose of the renewal of the body, at the same time that the renewing agencies are brought to their highest state of efficiency. In this way, a healthy cell-renewal takes the place of that morbid cell-renewal that appears in the shape of tubercular matter."

The views of the distinguished lecturer are right so far as they go. To increase the appetite of a consumptive to a healthy standard, and enable him to make his food into good blood, is to cure him. But the amount of food a man can dispose of, bears an exact ratio to his respiratory capacity. Diminish this, or supply him with

impure air, his appetite immediately falls off, and his bodily nutrition becomes imperfect. Increase the breathing power, his nutrition improves that very hour; an increased demand for food is set up throughout his whole system, and his stomach at once becomes clamorous for an augmented allowance.

Thus we see it is impossible to permanently improve the appetite, so long as the capacity to breathe steadily diminishes. But, if we can increase this, the appetite will take care of itself. How and why the Movement Cure treatment does this so effectually, I will endeavor to show in the following articles.

### THE MECHANISM OF BREATHING.

The introduction into the system of an adequate quantity of oxygen is essential to health. This vital gas serves most important purposes in the body; in fact all the complicated vital changes require an abundant supply of oxygen in the blood. When this vital gas is once in the system, it gives rise to many wonderful chemical and vital operations; but the act of breathing by which it is obtained is purely mechanical, consisting simply in enlarging the capacity of the chest by muscular action, when air rushes in to fill the vacuum. While in the lungs, the air parts with a portion of its oxygen, and becomes charged with carbonic acid gas. It is then forced out. The perfection with which respiration is carried on depends mainly on the capacity of the chest, the elasticity of its walls, and the resiliency of the lung tissue.

### CONDITION OF THE BREATHING ORGANS.

But consumptives lack, to a great degree, the mechanical conditions requisite to carry on the respiratory process perfectly. Their chests are narrow and hollow, not large, round and roomy. The walls of this organ are stiff and unyielding, not elastic, playing freely out and in at each breath. The lungs also lose their resiliency, and in various parts become condensed almost as solid

as liver. The efficiency of the whole lung is impaired, and the functions of some parts entirely destroyed, not only by the deposit of tubercular matter, but also because too little air enters them to preserve their normal condition. If we cease to breathe with any portion of our lungs, the part that is not used will soon be unfit for use.

### **EFFECTS OF MOVEMENTS ON THE BREATHING ORGANS.**

By means of movements all the respiratory muscles can be gently but effectually stretched, the circulation in them improved, and their strength increased, rigidity of the thoracic walls overcome, and the chest vigorously but safely expanded. The air is thus made to penetrate into and inflate collapsed portions of the lungs, and dislodge the matters with which such parts are obstructed. I may here remark that no attempt should be made to expand the chests of persons suffering from consumption until after the blood circulation has been regulated.

This disease is usually limited to one part of the chest, at least during the early stages, when a cure is still possible. All the respiratory muscles of a consumptive are stiff and weak, but the muscles covering the diseased side are always the stiffest and weakest. The walls of the chest are (as has been stated) contracted, but the part covering the diseased side is always more rigid and inelastic than that over the healthy lung. This is so palpable that an experienced physician need find little difficulty in pointing out the diseased part by these indications alone. Special movements, applied with special care, are, therefore, required to overcome these difficulties. By means of movements properly prescribed and applied, I have seen the muscles covering the chest, and those between the ribs, become softer, and greatly increase in strength in a few weeks; the chest walls regain their elasticity to a great degree, and the flattened side over the diseased lung becomes almost as full as that on the sound side.

## THE INCREASED AIR-SPACE USUALLY OBTAINED.

A healthy person breathes about twenty times per minute, twelve hundred times per hour, twenty eight thousand eight hundred times per twenty-four hours. Now it is not at all uncommon to succeed in augmenting the breathing capacity of a consumptive two, three, or even four cubic inches at each tranquil inspiration by skillfully applied movements. But, if we suppose his capacity for air is increased by only one and a half cubic inches at each breath (certainly a very moderate amount), he would then inhale fully thirty cubic inches more air per minute, eighteen hundred more per hour, or nearly twenty-five cubic feet of air extra every twenty-four hours—an amount that would, in many cases, promptly stay the progress of the disease, and eventually lead to its removal.

## CONDITION OF THE PULSE AND BLOOD CIRCULATION.

In this disease the pulse is constantly too rapid, the breathing habitually more or less shortened, and the lungs congested.

## WHY THE PULSE IS TOO FREQUENT, AND THE EFFECTS OF TREATMENT ON IT.

Physiologists tell us that the whole mass of the blood in the system, equal to about one-eighth of the weight of the body, passes through the lungs in somewhat less than three minutes; the pulse will then beat at an average healthy rate. But, in consumption, nature instinctively, so to speak, hurries the blood toward the lungs more rapidly, in order to bring it more perfectly in contact with the oxygen of the respired air. This circumstance, and, probably, the peculiarly irritable condition of the nervous system, renders the pulse more frequent. For instance, in the table by Dr. Hutchinson, published in article No. 6, it is stated that a man standing 5 feet 9 inches has usually a vital volume of 246

cubic inches in health; his pulse will then average about 70 beats per minute; during the first stage of consumption his breathing capacity will have diminished to 165 cubic inches, his pulse will then be accelerated to about one hundred; during the second and third stages, when his vital volume has declined to 140 and 116 cubic inches respectively, the frequency of his pulse will have greatly augmented.

But the movement cure has remarkable power to correct this, by virtue of its capacity to allay nervous irritability, control the blood circulation, and increase the breathing power. The application of a single prescription often has the effect of reducing the pulse in one hour 12 to 16 beats per minute.

### **EFFECTS OF MOVEMENTS ON THE CIRCULATION OF THE BLOOD.**

In attempting the cure of consumption, one of the most important indications is to draw away from the lungs the surplus blood with which they are congested, and to distribute it equally throughout the whole body. The chilliness of which consumptives so commonly complain, is caused by inadequate production of heat in the system, and by a want of blood at the surface of the body and extremities, while the wandering pains they feel about the chest are mainly due to stagnation of blood in the lungs. The correction of these difficulties always affords the sufferer very great relief.

When this treatment is skilfully prescribed and applied with tact and judgement, the following effects are produced in a few days—sometimes the patient feels himself benefitted by the application of the first treatment:—

All the blood in the capillaries is pressed into the minutest ramification of these vessels in greatly increased quantities, and gently urged onwards into the veins, through which it must pass to the lungs for purification. As soon as the pressure is removed, the capil-

laries are quickly refilled with fresh blood from the arteries. These vessels are also made to bring a larger supply of arterial blood charged with nutritive matters, which are given up to the solid parts while the blood is passing through the capillaries. The veins (one of whose functions is to remove waste matters) are stimulated to absorb these, and to dispose of them by the proper channels. The blood circulation thus secured is so perfect that the patient will feel the whole person to the ends of the limbs tingle with renewed life.

Congestion of the lungs is thus relieved with great certainty. The blood that now causes the whole body to glow with living warmth was, a short time ago oppressing the lungs and opposing their action.

The nutrition of the body is also improved, and a condition of both solids and fluids is established, directly opposed to the formation of tubercular matter in the blood.

### REVIEW OF OBJECTIONS THAT ARE SOMETIMES URGED AGAINST THE MOVEMENT CURE.

1st objection.—The treatment is entirely external, therefore it cannot reach an internal disease like Consumption.

The reader will observe that although the treatment is applied over the clothing, the effects are not confined to the surface of the body; but are produced throughout the whole length and thickness of the part operated on to the marrow. The blood circulation is improved, and the workings of the innermost recesses of the body are favourably influenced by movements. If the effects of this treatment were confined to the skin, as some suppose, it would be of very little remedial value. It is truly capable of inducing a renewal of life throughout the system. By virtue of this power, it strikes at the root of consumption—thus it employs the most efficient means for correcting the difficult t its very foundation. The consumptive should know that before

his lungs were at all diseased, the matter of which tubercles were eventually formed, began to arise in his blood. This change occurred in the blood because of imperfect nutrition. Correct this, and that day the deposit of tubercular matter in the lungs will cease, and a favorable change will take place in that which has already been deposited.

2nd objection.—Such treatment must be dangerous to persons who have a tendency to hemorrhage.

It might have that effect if not applied either by or under the direction of a competent physician. In treating consumptive patients, whether they have had hemorrhage or not, all attempts to expand the chest are deferred until the pulmonary congestion has been dissipated, and the blood circulation equalized. Then these operations may be resorted to, not only with safety, but with very great benefit. When treated by properly applied movements, bleeding from the lungs is never induced, while if it does exist, it is promptly arrested. ■

3rd objection.—The Movement Cure must be harsh and exhausting, therefore it is unsuited to the treatment of delicate persons.

This idea can only be entertained by those who are entirely unacquainted with the practice. Before beginning treatment, the patient is carefully examined, not only by the approved methods of diagnosis, practiced by educated medical men, but when applying these operations the physician subjects his patients to actual handling, his sense of touch becomes educated, so that he is enabled by this means to form a more accurate estimate of the invalids' vital stamina, than is possible by the ordinary methods of diagnosis alone. This done, a prescription is written of the particular movements believed to be adapted to the case. These are applied with a degree of gentleness, tact and dexterity, only acquired by long and careful training. Therefore, no greater error can be committed than to suppose that this mode of treatment is harsh, seeing it is susceptible of almost



endless modifications ; and can be adapted by the skilful practitioner to the treatment either of the stoutest persons or of the most delicate women, whose muscular and nervous systems have been prostrated for years, rendering them totally incapable of vigorous voluntary exercise. Instead of being fatigued by the application of a prescription of movements, an invalid feels decidedly refreshed and encouraged ; his whole person glows with a general warmth ; the respiration becomes calm and deep ; the pulse less frequent, more regular and strong ; if pain exists it is removed, or, at least, alleviated, and the nervous system soothed.

4th objection.—This is one of those short-lived medical novelties that often arise and disappear.

Not so ; the value of bodily movements for the purposes of physical development, and the cure of disease has been known and appreciated from a very early period. It is well known that the Greeks, Romans, and other enlightened nations of antiquity, devoted much attention to special curative exercises. These were, however, first systematized, placed on a scientific basis, and applied as a distinct medical specialty by Peter Henry Ling, of Sweden, about the beginning of the present century. In the year 1813, a Movement Cure was opened at Stockholm, under Royal patronage. It continues to the present day one of the most valued institutions of the Swedish capital.

A number of years ago, the then Emperor of Russia, sent a commission of learned medical men to investigate Ling's system. The report was so favourable that he ordered an institution to be erected at St. Petersburg.

The Movement Cure was adopted, and continues to be included among the public charities of the Russian, Swedish, and several other European governments. It is also successfully practised by private physicians at Stockholm, St. Petersburg, London, Paris, Berlin, Vienna, New York, and many other cities of less note, both in Europe and America. Wherever it is practised

by competent physicians it stands high, especially among the educated and intelligent classes.

I respectfully place it before the people of this city, fully convinced that it only requires to be known in order to be highly appreciated and extensively resorted to, as a medical resource; not only for the treatment of consumption, but for other chronic diseases, to which it is applicable.

### **ADVANTAGES OF THE MOVEMENT CURE.**

When properly prescribed and applied it never injures.

The injudicious use of powerful medicines, especially in days gone by, before the modern science of physiology had shed the light it now does on the healing art, is universally admitted to have been the cause of much suffering and premature death. Even at the present day, when a physician administers a drug, he is usually content to do some injury, that he may afterwards accomplish a greater good. But the movement cure has no such drawback. The impressions it produces are entirely in the direction of physiological growth and development. It enables the spontaneous tendencies of the system towards health, to act more efficiently. It directs the physical energies into those channels where they are most needed. It enables the system to develop and maintain its natural forces in greater amount, and its healing effects are produced without wasting the vital powers.

### **ITS CURATIVE EFFECTS ARE QUICKLY APPARENT.**

As the aim of the treatment is not merely to remove symptoms, but to eradicate the causes of disease, root, and branch,—in short, to effect as complete a renewal of life as possible,—time is required; still, a much shorter period is needed than might be expected, when the importance and permanence of the results are considered. The rate of improvement in different individuals varies

considerably, being determined by the nature and stage of the disease, and the remaining constitutional stamina.

When patients are under ordinary treatment, even in the climates that are believed to be most suitable for the cure of consumption, they are happy if they experience a very moderate amount of improvement in three or even six months. But, under the movement cure, it is altogether different. Persons, of whom a favorable opinion is expressed on examination, always *know themselves to be decidedly better in from ten to fifteen days*, and some are conscious of improvement before the end of the first week. An additional period of time is, of course, always required before the invalid attains all the benefit he is capable of receiving.

#### IT INSPIRES CONFIDENCE.

Confidence in any mode of treatment a sick man may be undergoing, greatly assists the physician's endeavors. If an invalid lacks faith in the movement cure previous to beginning operations, the encouraging accounts he receives from his fellow patients, who have been under treatment a sufficient length of time to test its value, and the improvement he soon experience himself, speedily fill him with hope and courage.

#### THOSE WHO RECOVER ARE NOT LIABLE TO RELAPSE.

It is well worthy of notice, as proving the curative influence of the specialty here advocated, that it is successful in the treatment of consumption, even in climates that are believed to be favorable to the development of lung disease. If space permitted I would cite the cases of a number of persons who contracted the disease while living in a district where raw, cold winds were very prevalent. They were there successfully treated by the Movement Cure, and have since continued in good health. Now, if these persons had not recovered thoroughly, not only of the local lung trouble, but also of the constitutional tendency to consumption, they would certainly

have relapsed, while constantly exposed to the influence of a deleterious climate.

### **MOVEMENTS AS A PALLIATIVE FOR INCURABLE CASES.**

In consumption, as in every other serious disease, there is a point in its progress beyond which recovery is impossible ; but, if a sick man cannot get well, he is always glad to experience all the improvement of which his case will admit. If he cannot live ten, twenty or thirty years, he is thankful to live five, three, two years, or even a single year. Now there are no sufferers who are more promptly benefitted by this treatment than these. Their blood is made to circulate more regularly, appetite improves, sleep becomes more refreshing, strength increases, the feeling of weariness with which they are so often oppressed, is removed. In truth, only a few days is required to ameliorate their most distressing symptoms. Of course the time comes when no further improvement can be obtained. I have, however, seen consumptives who were not expected to live more than six or eight weeks, although under the best medical advice, improve at once, and live twice or thrice as many months.

### **THE MOVEMENT CURE IN CONNECTION WITH ORDINARY TREATMENT.**

When an invalid, who is under the care of a physician of the old school, wishes to give homœopathy a trial, he must abandon the medicines prescribed by his former medical adviser ; or, if he wishes to leave the latter and try the former method, his homœopathic remedies must be given up forthwith. If, however, he is under the treatment now commonly employed for consumption, and wishes to try the Movement Cure, he need not give up his trusted family physician, because, although the use of powerful drugs is never necessary with the Movement Cure, cod-liver oil, pancreatic emulsion, etc., are always admissible. These are not, properly speaking, medicines, but auxiliary foods, the use of which is perfectly compatible with the medical specialty here advocated.



