



# MEDICATED INHALATION

IN THE TREATMENT OF

PULMONARY CONSUMPTION,

BRONCHITIS, ASTHMA,

CATARRH, AND CLERGYMEN'S SORE THROAT ;

COMPRISING ALL

THE RECENT DISCOVERIES AND IMPROVEMENTS IN THIS  
MODE OF PRACTICE.

TOGETHER WITH THE REMEDIES USED.

By H. P. DILLENBACK, M. D.

Illustrated with Numerous Cases and Engravings.

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## P R E F A C E .

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IN presenting to the public the following treatise, I am fully aware that views of pathology, or treatment of disease, differing in any degree from those generally admitted and received by the great mass of the profession, are received by its members with hesitation and distrust.

And this is not a matter of surprise, when we reflect that new theories, or systems of practice, are almost every day being suggested and thrust upon the public, of which not one in a thousand proves to be of any real value.

Nor need we wonder that some are inclined to turn a deaf ear to improvements and discoveries in medical science, however beneficial their results may be to mankind. But so far from complaining of this, I am and ever have been among those who claim the right to investigate for myself every theory or principle in medicine, however "time honored" and long established; and adopt and give them my approval only so far as they are supported by sound philosophy and successful experience.

In the following pages I have presented briefly my views with regard to the phenomena and management of a class of diseases which are second to none in importance in the entire catalogue of human infirmities.

It is my design, as far as practicable, to divest the following work of all professional technicalities, to make it alike intelligible to the professional man and to the general reader. Let it be distinctly understood, however, that we do not recommend self, or "domestic treatment."

No friend of humanity, I am persuaded, would advise the

uninitiated to tamper with the treatment of a class of diseases which has for centuries past baffled the combined wisdom and skill of the wisest and best. It is not without some degree of diffidence that I lay before the public a work on this most important subject. For any defects or inaccuracies of style which may appear, I have but one apology to offer; it has been prepared amid the pressure of constantly accumulating professional engagements. However, if my humble labors shall in any degree promote the advancement of medical science, or tend to prolong the life, or alleviate the sufferings, of one of my fellow-beings, I shall be amply repaid.

In taking this step, I am not unmindful of the position I occupy. We have old and long-established theories to contend with, deep-rooted prejudices, the trammels and fetters of schools, and also a host of physicians, whom, I presume, neither the power of persuasion, reason, nor argument, will convince. Claiming as I do to be actuated by motives of benevolence and philanthropy, I seek not the applause, nor do I fear the frowns, of any set of men, or cliques.

If this reform were a matter that related simply to our civil rights, it might be deemed of less consequence; but the lives of our fellow-creatures are at stake. We see them laboring under diseases which are aggravated, and I regret to say, often rendered fatal, by improper treatment. In justification of my course, I appeal to the public, before whose stern, inflexible, and finally unerring tribunal it is unnecessary to plead the cause of truth, and useless to varnish error. Friends may flatter, and enemies may defame; but the public at large do justice, because they are far removed from the sphere of personal feeling and influence.

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## INTRODUCTION.

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IF there is one class of diseases more than another which pre-eminently claims the attention of medical men, and the public generally, it is that melancholy train of diseases popularly known as consumption, and those relating to the air passages of the lungs.

These diseases have become so common, and have hitherto proved so universally fatal, that scarcely a "domestic hearth can be found that has not lost by them the dearest one of all." The young, the beautiful, and the good, have alike been its victims.

It spares neither age nor sex, but extends its ravages to every climate, from the frozen North to the sunny South.

And can there be nothing done to stay this increasing tide of death, which is sweeping like a sirocco over our country, leaving blighted hopes, sadness, and woe in its melancholy tread?

This is truly a question of momentous importance, involving, as it does, the lives of thousands of our fellow-beings annually. From the most reliable statistics we find that consumption has increased at the rate of five per cent. over and above the increase in population. To combat this disease, the most opposite modes of treatment have from time to time been recommended; yet the treatment thus far, as one has very truly remarked, "has only been equivalent to death." While the world is teeming with new discoveries, and the arts and sciences are advancing with rapid strides, it can hardly be said of Medicine that she has kept pace

in their onward march of improvement. Sir James Clark remarks on this point, "We have no reason to believe that the physicians of the present day are more successful than were their predecessors twenty centuries ago."

And to no class of diseases does this remark apply with such peculiar force as to those of the respiratory organs. A deep and abiding conviction is every where beginning to be felt in the public mind, that the usual modes of practice have no power in arresting the progress of this fearful malady. Such has been the universal fatality attending it, and so often have the fondly cherished hopes of friends been doomed to disappointment, that the poor consumptive, at the first intimation of his disease, is ready to yield himself up to despair. No art of medicine, no power, it was thought, could drive out or grapple with this giant foe of human life, when once he had fairly gained possession of the lungs. The great majority of physicians have been so long in the habit of regarding this disease as incurable, that little else than a mere palliation of symptoms has been attempted. The remedy has been administered by the stomach, while the festering, corroding ulcers in the lungs have been left to pass through their destructive changes undisturbed. I fully concur in the opinion of an eminent writer on this subject, when he says, "I am persuaded that no essential progress has been or can be made in the cure of consumption until the disease is treated upon different principles from what it hitherto has been." Unfortunately for the advancement of medical science, a spirit of illiberality, in too many instances, is allowed to mingle with the discussion of medical topics, and which serves to retard the progress and attainment of truth. We find in the days of Hippocrates, the father of medicine, as well as in our own, that medical truths were of slow development; and we cannot but be struck with wonder and

surprise, when we reflect that after the commencement of human dissections by Democritus, two thousand years should have elapsed before the important discovery of the true circulation of the blood was made known to the world.

Such was the ignoble spirit of envy and jealousy, even in that remote period of antiquity, that the illustrious Harvey, whose splendid discovery of the circulation, though demonstrated in the most convincing and satisfactory manner, was nevertheless denounced by his contemporaries as a charlatan, and his name calumniated.

He had the satisfaction, however, of living to see the clamors of ignorance and superstition silenced, every argument against him completely refuted, and his new theory of the circulation universally established. In a profession like ours, whose object is to alleviate human suffering, to gently soothe the dying pillow, and smooth the passage to the tomb, it is but fair to presume that its members will hail as an invaluable boon any remedial means, or system of treatment, calculated to avert the fatality or diminish the frequency of this class of diseases.

As a member of the medical profession, whose office it has been to ward off "death strokes" for many years, and having witnessed with deep and painful anxiety the unsuccessful results of the ordinary modes of applying the remedy in the treatment of consumption, I feel that it is only in accordance with the common dictates of humanity that I should give to the public my views, and the results of my experience, in the treatment of this class of human maladies, knowing, as I do from daily experience in my own practice, the incalculable benefits of medicated inhalations in throat and lung affections. It is a fearful truth, and one which cannot be too deeply impressed upon the mind of the consumptive invalid, that the practice hitherto adopted in these

diseases has not only failed in arresting the fatal symptoms, and performing a cure, but in the great majority of cases has caused the disease to run a more rapid course to a fatal termination.

His choice of treatment, therefore, must be to him a matter of infinite importance. But says one, Shall we reject the use of medicines by the stomach altogether? I answer, No; the careful and judicious administration of remedies by the stomach, with a view to improve and regulate the various functions of the system, must ever be regarded as valuable auxiliaries in the treatment by inhalation, and should by no means be disregarded. But what I contend for is, the direct application of the remedy to the seat of the disease. This is what is meant by inhalation in the treatment of consumption.

In asserting the curability of this disease, I am supported by the highest medical authority. Laennec, the greatest pathologist of modern times, says, "From a multitude of facts, I am convinced that in some cases the disease is curable, even in the latter stages; that is, after the softening of the tubercles and the formation of ulcerous excavations have taken place." And he further adds, that "the cure of consumption, when the lungs are not completely disorganized, ought not to be looked upon as at all impossible, in reference either to the nature of the disease or the organ affected." I might allude to the names of many others whose testimony is equally strong in support of this opinion. In a very large city and country practice, I have employed this treatment in many hundreds of cases, from a simple catarrh in the head to bronchitis, asthma, and consumption, with the most gratifying and satisfactory results. And in the more advanced stages of disease, where there was no possibility of effecting a cure, the treatment has universally afforded great comfort and relief.

It is sometimes urged as an objection to this method of practice, that the ancients employed it centuries ago, and laid it aside as useless. That this mode of treatment was employed even as early as in the days of Hippocrates, is admitted; and many since that day have from time to time resorted to it, and there is reason to believe, not without advantage. If they have failed of success, it has been because their treatment was empirical, the remedies being administered without regard to the pathology of the disease, or the indications to be fulfilled. I make no pretensions to actual novelty; we have the same views, we follow the same intentions, of our medical fathers; the only difference consisting in the simplification and improvement of the old modes of exhibition, and the adoption of many new and important remedies, which the modern discoveries of pharmaceutical chemistry have brought into use.

The eyes of the world are at this moment anxiously turned to this system as the only one from which there can be any possible ground of hope; and from the evidence already before us, I feel warranted in coming to the conclusion, that the day is not far distant when consumption and its kindred diseases, now regarded with such universal dread, will be ranked among our most curable diseases, and when it will be considered an act of stupidity and folly to treat diseases of the lungs in any other way.



# MEDICATED INHALATION

## IN CONSUMPTION AND DISEASES OF THE AIR PASSAGES.

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### CHAPTER I.

#### PHYSIOLOGY OF THE RESPIRATORY ORGANS.

BEFORE entering upon the consideration of the diseases of the throat and lungs, I shall call the attention of the reader briefly to the anatomy and physiology of the lungs.

The lungs consist of two porous, conical bodies, of a dark purple hue, composed of an infinite number of air cells, and situated within the natural cavities or walls of the chest, which they completely fill. They are divided into separate lobes; the right side has three lobes, while the left has only two.

Physiologists have computed each lung to contain 1,744,000,000 air cells.

Lieberkuhn, a celebrated German anatomist, represents them as composing a surface equal to 20,000 square feet. Now, each air cell of the lungs communicates with the pipes or bronchial tubes, from which

it is filled with air at each inspiration, and empties itself at each expiration of the breath.

These cells may be compared to a cluster of grapes, and the air pipes, or bronchi, to the stems on which the grapes hang.

The bronchial tubes are formed at the lower part of the neck by the division of the trachea, or windpipe, into two principal branches, which take the name of the right and left bronchi; and these again subdivide, the right into three, the left into two, corresponding with the number of lobes in each lung, which they severally supply; these again divide and ramify into almost an infinite number of smaller branches to every part of the lungs, and terminating each in a small sac formed by a continuation of the lining membrane of the air tubes, called the *air cells*.

The lungs may very properly be considered the great laboratory of the system—the place where the blood is purified and rendered fit for the circulation. They also serve as one of the principal waste gates of the body, through which the impurities and worn-out particles of the body are expelled. To illustrate this, all the blood in the human body passes through the lungs once in about four minutes, and is distributed over millions of air cells by means of small vessels, forming a perfect network over the inner surface of each cell.

The coats of these vessels conveying the blood are so extremely delicate that the air in the air cells can

pass through them and mingle with all the blood in the body in the short space of about four minutes.

The heart throbs, and every vessel is filled with blood. We breathe, and every air cell is filled with air; and thus, by a beautiful law of the human mechanism, this momentary union is sufficient to remove the carbon from the dark or venous blood, from which it is expelled in the form of carbonic acid gas, and by which it is converted into red or arterial blood.

From the above remarks it will be observed, that the lungs perform several very important duties. The same chemical changes which purify the blood, and impart life and energy to the system, also serve to generate and maintain the natural heat or warmth of the body.

The act of respiration, or breathing, is only a simple process of combustion, similar to that observed in an ordinary fire, or the burning of a candle or lamp.

In animal life you will observe that the breath and food are the actual fuel of the system; the lungs the furnace where the fire is kindled; and the arteries which carry the red blood serve as pipes, through and by which the heat and nutriment is conveyed to every part of the body; while the veins, which carry the dark blood, gather up the worn-out particles and impurities of the system, (which are the product of combustion,) to be expelled at the lungs.

When we reflect that the lungs are in every part filled with air cells, countless in number, and composing an absorbing surface of 20,000 square feet, and that these

cells are constantly filled with fresh supplies of air at every inspiration of breath, and that this air is absorbed through the delicate coats of the vessels into the blood, and carried by means of the circulation through the entire system, what can be more rational, more simple and efficacious, than the treatment of consumption by inhalation?

Since, in the same manner we breathe common air, we can inhale or breathe a medicated vapor, the atmospheric air, passing through the inhaler, becomes loaded or mixed with the vapor, and is conveyed directly into the lungs, filling every air cell and sac. The active properties of the remedies employed are thus brought to bear at once upon the seat of the disease—the inflamed mucous membrane and the ulcers in the lungs—without the unpleasant and disagreeable effects of the action of drugs upon the stomach.

## CHAPTER II.

## SYMPTOMS AND PATHOLOGY OF THE DISEASES BELONGING TO THE AIR PASSAGES OF THE LUNGS.

IN speaking of this class of diseases, I shall first call the attention of the reader briefly to the subject of CATARRH, or, as it is more commonly called, *cold in the head*.

This is a disease which has hitherto been very much neglected by medical writers. It has generally been regarded as trifling and unimportant; yet, in reality, it almost invariably lays the foundation for the most difficult and dangerous maladies. As a "constant dropping of water will wear away a stone," so must the acrid, offensive matter, collecting and dropping from the head into the throat, when continued for a length of time, destroy the integrity of the mucous membrane coming in contact with it.

Too much attention cannot be given to this important fact. A *common cold* may pass off in a few days without much disturbance of the general health; but too often, alas! when neglected, and left to itself, it tends slowly but surely to a fatal termination. The symptoms of catarrh are so generally known as scarcely to need a description. They are most commonly marked by a dull, deep-seated pain in the forehead and temples; a sense of dryness and

burning heat in the nostrils ; frequent sneezing and weeping of the eyes, accompanied with more or less fever, alternating with chills.

Subsequently, in the progress of the disease, an increased discharge of a clear watery fluid takes place from the nostrils, which irritates the parts over which it passes ; becoming, however, less in quantity, thicker, and assuming a yellowish appearance, as the affection subsides. These are the usual symptoms attendant upon a "*common catarrh*," or "*cold in the head*." But the tendency of this disease is to pass downwards, involving the soft palate, fauces, tonsils, and uvula ; and then it takes the name of *sore throat*.

These symptoms, when properly treated, usually subside in a few days ; but if neglected, and the disease is allowed to pass on unmolested, it sooner or later assumes a chronic form, and then it is called "*chronic catarrh*." This stage of the disease may be regarded as the result of a *neglected cold*, or leaving a cold to take care of itself.

Persons have not unfrequently suffered months from this most disagreeable affection ; yea, years, without understanding the cause of the difficulty.

This form of the disease is characterized by several different stages, each having its own peculiar symptoms.

First, we usually have a discharge of a yellow or straw-colored mucus, which accumulates in the posterior nares, above and behind the soft palate, dropping down into the throat, and producing almost a constant and irrepressible

desire to hawk and spit, with a view to remove the matter.

In the second stage we find the secretions dry and hard, in the form of dry crusts or scabs, which very much obstruct the nasal passages, and which are often very difficult of removal. In this form of the disease the sense of smell and hearing are often very much impaired; and where the disease has existed for a great length of time, the patient not unfrequently becomes quite deaf. Indeed, one of the most common causes of deafness may be found in chronic catarrh. In the third and last form of the disease, we have a muco-purulent discharge, generally of an offensive odor, and, being the result of ulceration of the mucous membrane, is almost invariably attended with loss of taste and smell; and in some instances the ulcerative process has extended so far as to produce caries of the bones of the nose, when it is attended with a dark, fetid discharge. A case of this character is at the time of writing under my care. Persons of a scrofulous diathesis are always more liable to this form of the disease than any other.

Individuals suffering from this affection are extremely liable to take cold on the slightest exposure, or on any sudden change of temperature.

This disease, as I have before remarked, is rarely confined to the head alone. From the constant irritation which is kept up by the dropping of matter into the throat, the patient sooner or later experiences a degree of hoarseness, with a tickling sensation in the part, and a frequent

desire to cough. Thus, in the progress of the disease, we see it constantly assuming a more serious character — from the slight catarrh to the seated bronchitis, from bronchitis to the first speck or deposit of tubercular matter in the lungs; and, from this deposit to the filling up of the entire lung with matter, burrowing among the delicate air cells, until the whole lung becomes a hopeless mass of disorganization.

Chronic catarrh, in a very large proportion of cases, may be regarded as the foundation and forming stage of pulmonary consumption, and other diseases affecting the air passages of the lungs. Too much importance cannot be attached to the early removal of this most unpleasant and disagreeable affection.

The treatment, with a view to a more practical illustration of the principles, I have concluded to reserve for the latter part of this work, to be given in connection with numerous cases.

## CHAPTER III.

## FOLLICULAR INFLAMMATION, OR SORE THROAT.

THE mucous membrane of the throat and air passages are abundantly supplied with small glandular bodies, which, in a healthy condition, are constantly pouring out from their delicate mouths a bland, transparent fluid, for the purpose of lubricating and shielding the lining membranes which invest them. This membrane, being constantly exposed to the atmosphere, as it is, in the act of breathing, must soon become hard, dry, and unyielding, and inadequate to its various offices but for this wise and beneficent arrangement.

The fluid secreted by the mucous follicles, in a normal condition, is not very abundant in quantity ; but when they are diseased, the secretions become more copious, and of an acrid, irritating character.

The mucous membranes, lining the throat and air passages, when in a healthy condition, usually present a slightly red or pale rose-colored appearance. When in a state of acute inflammation, they assume a deep scarlet, purple, or violet hue, depending on the form and intensity of the inflammation.

In chronic forms of the disease, the inflammation

appears generally in irregular, circumscribed forms or patches, more highly colored towards the centre, and becoming paler, and gradually fading into the natural color as we approach the circumference.

In one form of disease affecting the throat, we find the mucous membrane lining the fauces, tonsils, and pharynx, presenting a bright-red appearance, accompanied with considerable tumefaction, and a free discharge of mucus from its surface.

This is generally the result of a severe cold, and occurs mostly in the winter season. In another form of the disease we find, on inspection, that the throat has a dry and glossy appearance, and the small vessels, which are invisible in a natural condition of the parts, appear tumescent, and the entire surface presents a peculiarly vascular aspect.

There is still another form of inflammation, in which the membrane presents a pale, relaxed, and œdematous appearance; the œdema and tumefaction being the result of serous infiltration beneath the subjacent cellular tissue, and not dependent upon actual hypertrophy of the membrane itself.

Again, we find the mucous lining of the throat studded with granulations of various sizes, from the head of a pin to that of a large pea, presenting a rough, uneven surface, and not unfrequently containing a straw-colored fluid. In addition to the above-mentioned morbid states of the mucous membrane of the respiratory organs, there are other very important lesions of these parts,

which our present limits forbid that we should enter upon.

These various affections of the throat, if early attended to, can in most instances be arrested by a judicious system of treatment, and the mucous membrane be restored to its pristine integrity; but if, from neglect or improper management, the disease is suffered to pass on, it becomes more and more complicated, transmitting its deadly influences, step by step, from the throat to the larynx, from the larynx to the trachea, thence to the bronchial tubes; and last of all the lungs themselves become involved, which speedily puts an end to life.

A few years since, these diseases, which are now so fearfully prevalent, were confined to public speakers, singers, and others, who were much accustomed to use their voices. Now, scarcely a fireside can be found where some members have not been suffering more or less from this dangerous malady.

The main reliance of the profession has been, at least for a number of years, upon the use of nitrate of silver, applied by means of a sponge attached to a piece of whalebone. In this manner the throat has been cauterized for months together.

Such was the universal rage, after the introduction of this remedy into the profession, that every physician throughout the country was armed with a *whalebone and sponge*; and no sooner was there a patient found having any difficulty of the throat, — no matter what its character, or the causes which induced it, — his throat must be imme-

diately "*cauterized or sponged out.*" This treatment, I am sorry to say, has not realized the expectations of its advocates, nor the hopes of the profession. I would not be understood as entirely discarding local applications, as an auxiliary; particularly in cases of ulceration, they may always be regarded as of the first importance. Whatever temporary relief may be derived from local applications made to the throat and larynx, these measures, with a view to permanent benefit or radical cure, must ever be attended with failure, since it is well known that whenever an affection of the throat has existed for any considerable length of time, the diseased action has almost invariably been transmitted to the trachea and bronchial tubes, parts beyond the reach of topical remedies. Our only hope then, it must be admitted, is in inhalation.

I have employed medicated inhalations in a very large number of cases, larger than usually falls to the lot of a single individual; and from careful observation and experience, I can say that the treatment has uniformly been attended with the most gratifying and successful results. And it is not too much to say that I have seen it succeed daily in cases where the long-continued trials of the various remedies, usually employed by the profession, had proved utterly unavailing.

## CHAPTER IV.

## TONSILITIS, OR QUINSY.

INFLAMMATION of the tonsils, commonly known as quinsy, is a very common, and not unfrequently a very troublesome affection, being generally attended with more or less danger to the patient. This is especially true when the inflammation is deep seated, and involves the parts surrounding the root of the tongue and soft palate. When this is the case, it rarely subsides without causing suppuration, and the formation of an abscess; and sometimes we find the inflammation extends to the larynx, in which case it always assumes a more serious character, rendering the condition of the patient extremely perilous.

Under a high degree of inflammation, the tonsils are generally very much swollen, and increased frequently to an enormous size, filling up the entire passage of the throat, and producing almost a state of suffocation. I was called to see a case of this kind from the city of Albany, in the spring of 1843, in which the tonsils were swollen to such a prodigious size that the friends of the patient momentarily expected his dissolution. When I approached him, he could not speak,

and was only able, by signs, to make me understand his extreme agony. As the time had passed for the administration of any medicines with a view to relieve him, I introduced a common tenaculum, or hook, into the throat, drew up the gland as well as I could, and with a common probe-pointed bistoury removed the mass with one stroke, affording instant relief. The patient at once exclaimed, "I can breathe! I can breathe!"

The symptoms of this disease are such as usually attend the inflammation of other organs — increased heat, rapid pulse, chills, headache, &c.

I should remark, that this disease does not invariably run through the course just described; sometimes it terminates without undergoing the process of suppuration, all the inflammatory symptoms — heat, pain, tumefaction — gradually disappearing, and the parts resuming their former healthy appearance.

#### TREATMENT.

With regard to the treatment of this affection, a few thoughts may suffice. The only indications are to reduce the inflammatory symptoms; and, with a view to the accomplishment of this end, a decidedly antiphlogistic course should at once be adopted. If the subject is an individual of a full habit, having a quick, bounding pulse, it may be proper to take blood from the arm, and apply three or four leeches on each side of the neck.

This, followed by a brisk purgative, is generally sufficient to arrest the inflammatory symptoms.

In addition to this course of treatment the patient is usually directed to inhale an emollient anodyne vapor. In this manner the more urgent symptoms are relieved in a very few hours, and the patient's recovery takes place very rapidly. If, however, the treatment be neglected too long, suppuration, with all its attendant consequences, must ensue, and an abscess be formed. When the formation of matter has taken place, it should be punctured with a lancet, which will be followed by immediate relief. It may not be amiss to remark, that the internal carotid artery rises up behind the tonsils to some extent, and might, through ignorance or carelessness on the part of the operator, be wounded. No person at all familiar with the anatomy of the parts, I am persuaded, will be found guilty of committing such a blunder. From frequent and repeated attacks of inflammation of these organs, they are liable to hypertrophy, or chronic enlargement. The tonsils, in a normal condition, are not much larger than an ordinary pea; but, from long-continued diseased action, they become so much enlarged as to obstruct respiration; also affect the speech, producing a guttural sound of the voice; and not unfrequently they occasion more or less deafness, from the inflammation and pressure they cause upon the eustachian tubes; and not only so, they predispose to inflammatory attacks upon the slightest cold, or change of the weather, and thus,

by keeping up a constant source of irritation, serve to extend the diseased action to the larynx, and finally to the lungs. Sometimes we see the enlargement confined to one side only; but generally it extends to both. Various means have been resorted to to remove this morbid condition of the tonsils. Caustics have been applied for months together for the purpose of dispersing them, which have only served to increase their growth more rapidly. Iodine has been administered, both externally and internally, with no better results. I may remark, that when the disease or enlargement is of recent occurrence, and yet soft, applications of iodine will sometimes cause absorption, and entire removal of the difficulty. When the disease is of long standing, and the gland considerably enlarged, our only reliance is upon its removal by excision. This operation is very simple, being attended with little pain or inconvenience, usually occupying but a few seconds, and may be performed with entire safety to the patient.

The question has been frequently asked, Will they grow again after removal? In answer to this interrogation, I take the liberty to say, that I have operated perhaps in several hundred cases, and have never known a single instance in which the disease returned. Furthermore, I have never witnessed any unpleasant results from loss of blood, or any other cause. That the difficulty may have returned in some instances I do not doubt, but venture to say, when this has been the case, it was because the operation had been imperfectly performed,

and the work but half done. Various ingeniously contrived instruments have been invented for this operation. In my own practice, I have generally used a probe-pointed bistoury, except in the case of children, when I have employed a tonsil instrument adapted to this purpose. To the young and inexperienced operator I would always recommend the use of the tonsil instrument, as being the better and safer mode. The parts usually heal in a very few days, without much suffering or inconvenience to the patient.

#### ELONGATION AND ENLARGEMENT OF THE UVULA.

This is a difficulty apparently of slight importance, and yet it frequently has been productive of the most serious and disastrous consequences. It is one of the common results of follicular disease of the throat. Where diseased action in the throat has existed for any considerable length of time, we are pretty sure to find relaxation and elongation of the uvula. When this is the case, it is a source of constant irritation, producing a tickling sensation in the throat, accompanied with an irrepressible desire to cough. I have frequently been consulted by persons suffering severely from a cough and other symptoms characteristic of phthisis, and who had been treated as such by their family physician, when, on examination, I found that all their forbidding and unfavorable symptoms were dependent upon a simple elongation of the

uvula; and, upon removing this source of irritation, and prescribing some simple anodyne inhalation, all their unfavorable symptoms speedily subsided; and in the course of a few weeks, living upon a generous diet and exercising freely in the open air, they were fully restored to their usual health and strength.

Doubtless many cases of this character have resulted fatally on account of the carelessness or inattention of the medical attendant in overlooking this simple yet important matter.

One of the symptoms by which we may readily recognize this difficulty frequently, on first beholding the patient, is a disposition on his part to close the mouth, at the same time making an attempt to swallow.

In a simple elongation of the uvula caused by a relaxed condition of the parts, a stimulating or astringent gargle is frequently sufficient to restore the organ to its healthy and natural condition. But where it is the result of a chronic diseased action of the mucous membrane of the throat, and the uvula is not only elongated, but permanently enlarged, all applications to the throat are useless; no remedy can avail any thing. The removal or excision of the part is the only course to be pursued.

So simple, so unattended with pain or inconvenience, is this operation, that its removal, when necessary, should not be omitted nor delayed for a moment.

Some regard it necessary to remove the entire uvula, which may be done without injury to the patient; but I

have always found it quite sufficient to remove a portion of the offending member.

The most simple and convenient instrument, and the one I employ for this purpose, is a heavy pair of curved scissors, and a pair of long, slender forceps having finely serrated blades. With these forceps I seize the uvula, and draw it gently downward and forward, and with one stroke of the scissors it is removed at the desired point. The part readily heals in a few days, the source of the irritation being removed; the result, as we should expect, is an amendment of all the symptoms.

## CHAPTER V.

LARYNGITIS.—LOSS OF VOICE.—CLERGYMAN'S SORE  
THROAT.

WE shall make a few remarks in regard to the anatomy of this organ, and then shall proceed to consider its diseases.

The larynx is a cartilaginous tube, representing a cone with its base upward towards the root of the tongue, assuming the shape of an expanded triangle.

It opens into the pharynx, and unites inferiorly with the trachea. The walls of the larynx are formed by strong cords or cartilages, which serve to protect the delicate organ of speech. These are bound together by ligaments, and moved by a set of muscles, which are under the control of the will. The vocal cords are composed of elastic fibres, enclosed in a fold of mucous membrane. By the action of these cords we are enabled to produce a great variety of sounds, by which means we are able to communicate our ideas to one another, rendering our thoughts intelligible, and showing the wisdom and skill of the great and divine Architect.

The entrance of the larynx is closed by a little valve representing a trap door, which rises and turns back

towards the root of the tongue, and is called the "epiglottis." When this stands erect, the chink or passage to the glottis is open, as in inspiration or drawing in the breath. On the approach of drink or food, this mysterious little sentinel closes the door, and permits the nutriment to pass freely over into the œsophagus, thence to the stomach, and thus prevents its escape into the windpipe.

That part of the windpipe to which the name of larynx is given is from one and a half to two inches in length.

Having given a brief outline of the anatomy of this important organ, we will now consider its pathology.

We find two forms of laryngitis, viz.,

#### *Acute and Chronic.*

The acute stage is usually a very severe and fatal form of disease. Like all other affections of the throat and air passages, it is generally brought on by sudden changes of temperature, and exposure to cold and moisture. It more frequently attacks children than adults. There seems in some individuals to be a constitutional predisposition to attacks of this kind. Laryngitis is an inflammation of the mucous membrane investing the larynx. The symptoms characterizing this disease are, soreness of the throat, attended with difficulty of deglutition, hurried and difficult respiration, a dry hoarse cough, not unlike that of the barking of a young dog. As the difficulty of breathing increases, the voice becomes more and more hoarse, and the countenance assumes a peculiarly anxious

expression, accompanied with a livid hue, caused by the imperfectly oxydized state of the blood. As the disease progresses, and the patient at length loses the power of articulation, there is a peculiar wheezing sound produced at every inspiration of the breath, that can be distinctly heard at some distance. The face now assumes a dark, purple appearance, the eyes protrude, the patient tosses from one side of his bed to the other, gasps for breath, and gradually sinks into a state of stupor or insensibility — the last token of failing life, indicating that the damps of death are upon him, being the peculiar rattle of strangulation.

These are the symptoms which usually mark a fatal termination of the disease.

#### TREATMENT.

Whatever is done, with a view to arrest the progress of this disease, must be attended to early. Such are usually its fearful and rapid strides, when once it has fastened its deadly coils upon the system, that a few hours are frequently sufficient to decide the patient's fate.

In a person of a full habit, with a high degree of febrile excitement, and a full, round, and bounding pulse, the most active antiphlogistic measures should at once be resorted to.

The patient should be bled freely from the arm, and leeches applied near the seat of the disease. These active

measures, it is proper to state, should only be resorted to in the earlier stages of the disease. The next step in order, with a view to reduce the inflammatory action, is to apply a strong solution of nitrate of silver, from forty to sixty grains to the ounce, by means of a showering syringe. This may be repeated at short intervals until the inflammation subsides, and the danger is over. At the same time, the patient should inhale anodyne emollient inhalations, as hot as can be borne. This course of treatment seldom fails to break up the disease, if early and perseveringly applied. If the first stage of the disease has been allowed to pass by, and the parts have become œdematous, the breathing labored and difficult,—in short, the patient is dying for want of breath,—nothing remains for us to do but to give him air. And this is done by an operation, making an opening in the windpipe below the obstruction.

Another method, introduced by Dr. Buck, one of the surgeons of the New York Hospital, is, by scarifying the mucous membrane of the larynx. He claims that in œdema, if the scarification penetrates the submucous cellular tissue, the sero-purulent matter will be discharged, and the distention removed, and the air can once more pass freely into the lungs. He says it may be necessary to repeat the scarifications several times, as the œdema is liable to return. Lisfranc, the celebrated French surgeon, has also practised this plan successfully.

These operations have frequently failed, because they were deferred until it was too late. The same may be

said of the operation of tracheotomy; the favorable moment has been allowed to pass; yet it may afford temporary relief even in later stages; though the patient is ultimately doomed to die in a state of asphyxia.

Whenever these operations are indicated, the suggestion is, that they should be early attended to.

*Chronic Laryngitis, or Clergyman's Sore Throat.*

This is by far the most common form of the disease, and in the great majority of cases occurs among persons of a scrofulous habit. It consists essentially in an inflammation, and a thickened, indurated state of the mucous membrane lining the larynx, which very often ends in total loss of voice, and not unfrequently in consumption of the lungs. What can be more truly painful than to witness a human being, whom God has created for social intercourse, deprived of the power of speech?

The approach of this disease is often very insidious, the symptoms being very mild, the patient only complaining of a slight cold, and perhaps a little hoarseness, which he thinks will wear off in a few days. But as the disease advances, the symptoms become more urgent, and the patient now complains of a constant tickling sensation in the throat, with a frequent desire to cough, and an effort to hawk, with a view to clear the passages from the secretions which are constantly being poured out by the diseased glands. The breathing becomes loud and prolonged as the obstruction increases; the voice becomes more husky and

feeble, until it can scarcely be heard above a whisper ; and where ulceration of the vocal cords takes place, we have the most conclusive evidence that the voice is irremediably lost. These symptoms, however, are only present in the severer forms of the disease. In milder cases the hoarseness is dependent upon merely a thickened state of the mucous membrane about the vocal cords ; the surface becomes hard, rough, and irregular, and thus impedes or destroys their freedom of motion.

Persons who are much accustomed to use their voices, as is the case with public speakers, clergymen, lawyers, auctioneers, &c., are among those who frequently fall victims to this disease. The vocal cords, by constantly overstraining them, become exhausted, and lose their tone and elasticity.

It is a fact worthy of notice, and should not escape our attention, that this affection frequently has its origin lower down than the larynx, in which case the exciting cause is the presence of tubercles in the lungs ; and which accounts for the frequent failure of those who attempt to treat this disease by local applications made to the throat.

Chronic laryngitis is not unfrequently the result of a neglected catarrh, or sore throat. The reason of this is obvious, and easily understood. The matter from the head is constantly dropping through the posterior nares into the throat, and the irritation thus produced spreads rapidly to the larynx, bronchia, and finally to the lungs ; these various organs forming but different parts of the same membrane.

I am almost daily consulted by individuals in various stages of diseased throats, bronchitis, and consumption, whose difficulty commenced with a simple catarrh, or "cold in the head." These affections, trifling and unimportant as they may seem at first, cannot be too early attended to.

#### TREATMENT.

The first thing requiring attention, in the treatment of this disease, is entire rest of the organ affected. Without it no measures can avail any thing. Many cases, when slight, become aggravated by a disregard of this simple indication.

The clergyman and the public singer should cease to pursue their vocation, and keep their vocal organs at perfect rest.

With regard to the remedial means employed by the profession, I will remark that cauterizing or burning the throat with nitrate of silver, is a remedy which for a few years past has been regarded with almost universal favor; but I am sorry to say it has failed to accomplish all that was hoped from it: a temporary palliation of the symptoms, in most cases, is all that has been realized. Instead of restoring healthy action and giving tone to the debilitated condition of the membrane, it has too often, I fear, destroyed its integrity, and the disease has been transplanted to some more vital organ. Local applications of a proper character and suitable strength, applied directly to the internal surface of the larynx, by means of the

laryngeal syringe, are remedies of undoubted value, but when relied on as the only means, generally disappoint the expectations of the patient. The plan adopted in my practice is to recommend the patient to inhale from an apparatus, constructed for that purpose, a mild astringent vapor from three to four times a day; and by this means the diseased membrane is acted upon in every part; and when the disease is more intractable,—especially when ulceration has ensued,—applications of a proper character, made with the showering syringe, will generally facilitate the cure. These means, with proper attention to the general health, rarely fail to afford immediate and prompt relief, if early adopted and faithfully persevered in. Affections of this kind come under my observation daily, and the beneficial results of this simple mode of treatment by inhalation have convinced me that it is the only rational and successful way of bringing about a healthy state of the tissues of these parts when once diseased, and will succeed when the ordinary remedies by the stomach utterly fail.

## CHAPTER VI.

## BRONCHITIS.

HAVING already spoken of several diseases relating to the air passages, we come now to the consideration of bronchitis.

The bronchial tubes are lined by a delicate transparent covering, called the *mucous membrane*. This membrane is liable to inflammation from a variety of causes. The diseases to which it is subject have received different names, from the particular portions or parts affected.

First in the series we have catarrh—an inflammation of the nasal passages. Next in order, as we pass downwards, we have sore throat; then laryngitis, trachitis, and, last of all, bronchitis; and when the inflammation extends to the air vesicles, or substance of the lungs, it is called *pneumonia*, or inflammation of the lungs.

We have two forms of bronchitis, viz., acute and chronic. The acute form ordinarily commences like a common catarrh, attended with a sensation of heat, dryness of the throat and nasal passages, with alternations of chills and fever. These symptoms are followed by a dry and hard cough, which usually continues from three to five days, when we find a thin discharge of trans-

parent mucus takes place. The cough now comes on in severe paroxysms, which frequently continue for several minutes. The patient can take a full breath, but cannot retain it, on account of the paroxysms of coughing it is sure to produce. In the early stage of the disease, I should have remarked, the cough sounds hoarse, and the respiration is labored and difficult, accompanied with a sense of soreness and oppression along the sternum. These symptoms gradually change in character, the expectoration becomes less viscid, and is finally converted into thick yellow matter; and, as this takes place, the cough becomes more easy, the expectoration less difficult, the soreness and oppression of the chest gradually disappear, and a speedy return of the natural and healthy functions of the body takes place. This may be regarded as the usual course of a mild attack of bronchitis. This form of the disease generally runs from ten to twelve days.

In bronchitis, the inflammation involves both lungs, and is generally confined to the inferior lobes of each.

The severer forms of this disease are not unfrequently attended with imminent danger to the patient; it runs a very rapid course, and the patient sometimes sinks down and dies in three or four days from the commencement of the attack.

The inflammation in these cases is more general, extending over the greater part of the lungs; and the patient experiences such a sense of suffocation as almost to amount to actual strangulation. The hands present a

wax-like appearance, and the countenance assumes a peculiarly livid or leaden hue. The pulse grows very weak, and the patient, being unable longer to throw off the mucous expectoration, a cold sweat breaks out upon the face and hands, he rapidly sinks into a state of asphyxia, and death puts an end to the scene.

#### TREATMENT.

A few general remarks in relation to the treatment may be sufficient.

The course to be pursued in this disease differs very little from inflammation in other organs affecting the air passages. Antiphlogistics, of course, are indicated. If bloodletting is had recourse to at all, it should be done with the greatest caution, as, in the natural progress of the disease, the patient usually needs all his strength and vitality. The patient will receive the greatest comfort and relief from simple emollient inhalations, to be used as hot as he can bear.

I have seen the most happy and beneficial results follow from inhaling a decoction of flax seed or marsh-mallow, combined with conium and ipecac. In almost an incredible short space of time, by inhaling these simple remedies, the difficulty of breathing and oppression of the chest has been removed, the hot and parched condition of the skin become moist, the cough quiet, and the expectoration easy. Who, that has witnessed the soothing and agreeable effects of warm

fomentations applied to the external surface of the body, can doubt the value and superior efficacy of warm, soothing vapors when applied to the inflamed mucous membrane in the lungs?

By pursuing this course of treatment, varying the remedies according to the condition of the patient, I have frequently seen them recover from severe attacks of bronchitis in six or eight days, which, under the old modes of treatment, would, in all probability, have required as many weeks.

#### *Chronic Bronchitis.*

Dr. Badham, in 1808, was the first to call the attention of the profession particularly to the subject of inflammation of the mucous membrane of the bronchia, and gave to this disease the appropriate name it bears. It is surprising that the true pathology of this disease should have been overlooked so long. Previous to this time the disease was known by the most vague and unscientific terms; such as "tussis," "catarrhus senilis," "bastard peripneumony," and the "peripneumonia notha of Sydenham," which, for a long time, was a theme of much controversy.

Chronic inflammation of the mucous membrane of the bronchial tubes is a difficulty of very frequent occurrence, and is often mistaken by the inexperienced and unskilled for consumption. This form of the disease is very commonly the sequel of the acute form.

If, when the usual symptoms of acute bronchitis sub-

side, the patient does not regain his ordinary health and strength, and superadded to this, he has a slight increase of fever towards evening, with some cough and expectoration, and, perhaps, some degree of tightness across the chest, we may safely infer that the disease has assumed a chronic form.

Persons who have suffered from repeated attacks of this affection are always exceedingly liable to a return of the symptoms, whenever they are exposed to sudden alternations of temperature, going from a warm room into a cold one, getting wet feet, or becoming suddenly chilled when in a state of perspiration. It is highly important to patients suffering from this difficulty that the temperature of the room should be perfectly uniform — never too hot nor too cold.

Such is the intimate connection and close relation existing between the external surfaces of the body and the mucous surfaces of the lungs, that too much cannot be said in favor of protecting well the former; and thus we shall guard, in the most effectual manner, the latter against the invasions of disease.

Chronic bronchitis assumes several different forms, having reference to the constitutional symptoms attendant upon each. Sometimes we find a considerable degree of febrile excitement manifesting itself; at other times the constitution seems to be entirely free and unaffected; and again we frequently find an asthenic condition of the system, or a tendency to debility.

That species of bronchitis which is attended with febrile

excitement is, by the older writers, called "peripneumonia notha," and runs through a course of about three or four weeks, usually confining the patient to his bed, at least part of the time. This, by some authors, is distinguished by the name of *subacute* bronchitis. The expectoration is of a muco-purulent character. The cough assumes such a paroxysmal character that it is not unfrequently mistaken for whooping cough.

This disease, if neglected in its early stages, generally terminates in ulceration of the mucous membrane of the bronchia, when we have an expectoration of a greenish, purulent character, coming up in full mouthfuls. By close attention to the preceding symptoms, together with the nature and quantity of the expectoration, we usually find no difficulty in distinguishing this disease from phthisis pulmonalis, where the matter expectorated assumes the form of globules of a whitish straw color. The patient can generally take a full inspiration of breath, which is impossible in advanced stages of consumption. This species of bronchitis may always be regarded as peculiarly dangerous to the patient, and, perhaps, oftener proves fatal than any other.

The next species of bronchitis to which I have occasion to refer is usually unattended by any disordered constitutional symptoms.

We have little or no expectoration, though the cough is very severe and harassing, and occurs on first waking in the morning. It frequently continues from half an hour to an hour after rising, and recurs not un-

frequently during the day. This condition of the patient seems to be dependent upon an extremely irritable condition of the mucous membrane, closely allied to a state of inflammation; and, in some instances, it has probably been owing to gastric or intestinal irritation.

We have still another form of the disease, which is characterized by a loss of tone in the system, and which we rarely find but in old people, and hence has been called by some medical writers "*catarrhus senilis*." The symptoms are marked by a profuse expectoration, often alarming in quantity, and a feeble and languid pulse. The patient experiences also a peculiarly drowsy sensation, a strong inclination to sleep, frequently complains of extreme weakness of the limbs, and a peculiar sense of languor and debility of the entire system.

Women, by nursing their children too long, are occasionally the subjects of this disease.

The leading characteristic features of this disease, and by which we are enabled to distinguish it from tubercular phthisis, are the following:—

In chronic bronchitis the face assumes a peculiarly pallid or livid appearance, and the lips a purple hue; while in phthisis the lips are generally of a bright-red color, and the cheeks more constantly flushed. In chronic bronchitis, again, we find a wheezing noise in respiration, and an oppression of the chest, though unattended with pain on inspiration.

These symptoms, in addition to the absence of the usual physical signs recognized by auscultation and per-

cussion, enable us to discriminate between these two affections. In ordinary cases of bronchitis we cannot detect the slightest change in the respiratory sounds of the chest.

Whenever, therefore, we find any dulness on percussion, we have reason to suspect the existence of a more serious malady.

We sometimes find the lungs giving an unnaturally clear and distinct sound on percussion. This condition of the lungs is denominated "emphysema."

The difficulty in emphysema is not a want of air; there is air enough in the air cells, but it cannot escape from them readily in the feeble act of expiration, and hence it is not so frequently changed as the wants of the system require. The blood is not properly oxydized, by reason of which it becomes surcharged with carbon, and which gives to the countenance a peculiar livid aspect, as seen in asthmatic affections. The expectoration in emphysema has a dirty appearance, resembling an impure solution of gum arabic. In this form of the disease we frequently meet with a dilatation or enlargement of the bronchial tubes.

When the disease has existed for a great length of time, disorganization of the air tubes ultimately takes place, and the patient dies with all the symptoms of confirmed phthisis.

## TREATMENT.

The usual practice of the profession in the treatment of this class of diseases has been, for centuries past, and until very recently, a fruitless round of experiments from beginning to end. One of the worst possible errors, and one which deserves to be ranked among the relics of a barbarous age, is the idea that these diseases were dependent upon an inflammatory condition of the system; and hence, with a view to meet this indication, the poor sufferer must be subjected to the cruel and revolting practice of *starving, bleeding, blistering, cupping, setonizing*, dosing with *calomel, antimony, squills*, and a host of other nauseous and offensive drugs, too numerous to mention, all of which must be administered and attended to with a view to reduce this supposed inflammatory action. This practice, it is needless to say, so far from arresting the progress of the disease, has only served to hurry on the fatal symptoms, and effectually cut off the few remaining chances of the patient's recovery.

Sooner than submit to a system of treatment so barbarous in itself, so much wanting in success, so universally fatal in its results, trust the health of the unfortunate consumptive to *pure air, a generous and nourishing diet*, and moderate exercise.

I would not speak harshly, nor give utterance to an unkind word; but while the victims of consumption are being multiplied on our right and our left, and thousands

of "the most gifted, the beautiful, and the good" of our race are annually falling before its destructive march, we cannot remain silent, nor be indifferent to its results. Is there no hope? Is there no power that can arrest the fearful progress of this most destructive and terrible disease?

I answer, yes. And here let me say to the consumptive invalid who has been journeying on through darkness and doubt, without one bright star of hope to illumine his cheerless way, that there is encouragement in the future, and it is highly consolatory to know that the power of medicated inhalation at last bids fair to conquer this much dreaded scourge of mankind. Evidences of the most convincing and satisfactory character are not found wanting to establish the superior claims of this mode of treatment.

Nothing can be more certain, no truth more self-evident, than the fact that remedies, when applied directly to the seat of the disease, must be more efficacious, and act with greater energy and power, than they possibly can when administered into the stomach.

The treatment of chronic bronchitis, like other affections of the air passages, must, of course, be varied according to the different stages and varieties of the disease which may be present. When we have a profuse muco-purulent expectoration, we employ inhalants possessing alterative and astringent properties, which speedily change the color and quantity of the matter expectorated, and serve to promote a healthy action in the diseased condition of the mucous membrane. When the expect-

toration is difficult and the cough distressing, we employ inhalants of an anodyne and expectorant character.

By this means we not only remove the morbid secretions which obstruct the air channels, but allay the source of irritation upon which the cough depends ; and, as the result of this change, the patient expresses himself more comfortable ; his rest becomes quiet and undisturbed, and he can breathe deeper and fuller, without a disposition to cough. In short, every action or change necessary to be effected upon the diseased mucous membrane, or upon the lungs themselves, can be brought about more speedily, and with greater certainty, by inhalation than by any other means.

## CHAPTER VII.

## ASTHMA.

PATHOLOGISTS have, in all ages, been at a loss to determine the precise nature and the seat of this affection. It has been the theme of almost an endless controversy, without eliciting any truths of practical importance. The disease manifests itself in paroxysms, and medical men pretty much all agree, at the present time, that it is located in the mucous membrane of the bronchial tubes and air cells of the lungs.

These paroxysms generally come on at night, during sleep. The patient experiences immediately such a degree of oppression and tightness across the chest as to produce almost a state of actual suffocation; the countenance indicating the most intense anxiety and distress. His breathing is performed with the utmost difficulty, and attended with a wheezing noise.

The patient will suddenly start up in bed, and call for the windows and doors to be thrown wide open. In this state of extreme anxiety and distress he generally continues until towards morning, when the symptoms gradually begin to abate; the respiration becoming more natural and easy, and a copious mucous expectoration

takes place; with it the paroxysm ceases, and "tired nature's sweet restorer" comes to his relief.

The premonitory symptoms, which usually indicate an attack of asthma, are a sense of weight or fulness in the epigastrium, heartburn, flatulency, a peculiar sense of drowsiness and pain over the eyes. During the paroxysm the pulse continues regular and undisturbed. In some cases the expectoration is very profuse, in others it is more scanty; and hence by some writers it has been denominated "dry" and "humid" asthma.

Various causes have been assigned for these sudden and mysterious attacks, and the one which to my mind seems most rational and conclusive is this: the air tubes or pipes which convey the air into the lungs are supplied with a muscular coat which gives them the power of contracting or expanding.

Now, any irritating cause which may be brought to bear upon the nerves which supply the muscular coat, may produce an instantaneous spasmodic contraction, diminishing at once the size of the tubes, in such a degree that it is impossible to receive through them a due supply of air to purify the blood. From this it is plain, that whatever irritates the nerves which go to supply the lungs, may produce an attack of the asthma.

This affection generally manifests itself in a nervous, irritable habit of body. In this connection, I remark, that most asthmatic subjects are peculiarly liable to gastric derangement, indigestion, flatulent colic, and various other morbid conditions of the stomach. Now, as the

pneumo-gastric nerve, as its name indicates, presides over and forms a sustaining link of sympathies between the stomach and the lungs, it is easy to understand that any derangement of the former must produce a consequent derangement of the latter. Moreover, we find in persons who are predisposed to asthma a peculiar liability to derangement of all the organs to which this nerve is largely distributed.

The exciting causes of asthma are almost too numerous to mention. Among some of them we may name *certain conditions of the atmosphere*, in relation to *dryness, humidity, electricity, and temperature*. Most asthmatic subjects bear a warm, dry air better than a cold, humid atmosphere, though occasionally the very reverse obtains. I have frequently found patients residing upon the seaboard, very much benefited by a removal into the interior or mountainous regions.

Again, when persons have contracted the disease away from the sea shore, I have known them to be very much benefited by a residence upon the sea coast. The benefits in either case seem to result particularly from a change of atmosphere.

One of the most common and exciting causes of this affection is exposure to cold when the body is in a state of perspiration. Mental emotions, sudden fits of anger and terror, will frequently excite this affection in those who are particularly predisposed to it.

*Hay Asthma. — Hay Fever. — Rose Cold.*

This is a species of asthma which usually comes on during the summer months, and passes off again about the first of autumn.

This disease manifests itself generally about the middle of June, and commences with the symptoms of a severe cold, a burning sensation in the nose, with a discharge of a transparent, irritating fluid from the eyes and nostrils.

These symptoms are speedily followed by a dry cough, wheezing, and difficult respiration. Some persons, on walking into a flower garden, will be instantly attacked with sneezing, burning of the nostrils and eyes, ending in a severe paroxysm of asthma ; hence this affection has been called *rose cold*. The smell of hay, at this season, also induces an attack of this disease ; and hence it has taken the name of *hay asthma*. Some individuals are so peculiarly sensitive that they will experience all these symptoms on going into a barn where hay is stored, though it be long after the hay season is past.

The odor of *ipecacuanha* has suddenly excited asthmatic symptoms in some persons.

*Various irritating matters inhaled into the lungs* have a large share in inducing these attacks in persons predisposed to the disease ; such as dust, fumes of arsenic, lead, sulphur, nitric acid, tobacco, and many other irritating substances. Some asthmatics can go with perfect impunity

into a crowded room, which others would shun as the certain prelude to an attack.

Some are most troubled with this disease during the summer; while others dread the approach of winter. An asthmatic patient may be regarded a true barometer, being able to indicate the slightest changes of the atmosphere, though quietly seated in his own private apartments.

From whatever causes this disease may arise, it is evident that frequent and repeated attacks induce a certain habit or state of the system, which strongly predisposes the whole frame to a renewal of these diseased actions.

Asthma is rarely considered a disease of much danger. We have no instance on record where death has occurred during the paroxysm; although the frequent occurrence of the disease must ultimately lead to other affections of a more serious character. In persons where the disease has existed for a long time, it is by no means uncommon to find dangerous pulmonary congestions, diseases of the heart, effusions of the chest, œdematous swellings of the ankles, and other symptoms characteristic of fatal exhaustion. The gradual inroads which it generally makes upon the system, during many years of suffering and anxiety, are sufficient to imbitter all the enjoyments of life, and to make the poor sufferer look forward to the closing scene of existence as the only hope of relief.

## TREATMENT.

In looking over the records of medicine, we find that almost every article in the materia medica has, at one time or another, been resorted to as a remedy for asthma; and the result, as we have seen, has been nothing but failure and disappointment. The public, as well as the great mass of the profession, have finally settled down into the conviction that this disease is wholly beyond the possibility of cure; that there is no remedy, however potent, that can break up or arrest the progress of this malady, when once it has become firmly established in the system. This is certainly a melancholy reflection, and one which comes home to no one with such peculiar sadness as to the unfortunate asthmatic, who is doomed to suffer on too frequently until life itself becomes a burden, without a single ray of hope, only in that which lies beyond the tomb.

There is certainly nothing in the pathology, nor in the symptoms, of this disease, which would lead us to regard it, in its earlier stages at least, beyond the reach of curative art. We can easily conceive of a disease so fearfully rapid in its progress, and so dependent upon structural disorganization, as to set at defiance all our best directed efforts of cure. But not so in asthma. Here we have a disease arising from the most simple causes, *even a common cold, a morbid irritation of the mucous membrane of the bronchial tubes and pulmonary nerves.* Moreover, it is peculiarly noted for its slow and gradual progress. The

patient's health, during the intervals of attack, continues good, far better than in most local diseases, unless the disease has been very severe and of long continuance ; in which case the constitutional energies are undermined, and the powers of the system begin to flag.

From the foregoing facts, we should regard asthma as much under the control of medical art as we would an ordinary affection of the lungs, or any of our most curable diseases. An eminent writer has very justly remarked that in physic, more than in any other department of human knowledge, facts are worth every thing, and theory nothing.

That medical men have failed in the use of the means hitherto employed is to us not a matter of surprise ; and if the same principles were to govern us in our treatment that have hitherto directed them, we too should have little ground for hope.

Medicines administered into the stomach, it is well known, do not reach the disease, their principal force being spent upon the general system ; so that before they reach the lungs their power is lost.

It seems like the climax of folly to attempt to affect the lungs through the medium of the stomach, when, by the simple process of inhalation, we can so readily gain access to them, and bring all the remedial properties of the medicines employed to bear at once upon the part diseased.

The suffering asthmatic knows full well how much he has been relieved by the *burning and inhaling* of the *fumes*

of *saltpetre*, the *smoking* of *stramonium*, and by the *inhalation* of *ether*. These are but familiar examples and illustrations of the power of inhaled remedies.

If from this crude and imperfect mode of inhalation such great comfort and relief have been experienced, during a paroxysm of the asthma, what are we not to expect from a careful and judicious selection of the proper remedies, administered scientifically and by the hand of experience. Our object in this mode of treatment is, not only to obtain temporary relief during an asthmatic attack, but by the action of inhaled remedies, daily employed, to soothe and allay the nervous irritability of the lungs, change the morbid character of the mucous membrane, and break up the entire train of nervous sympathies, upon which these spasmodic attacks depend. These are the measures we depend upon in all asthmatic and pulmonary diseases; and we should just as soon think of administering a suitable eyewash into the stomach, with a view to cure chronic inflammation and ulceration of the eyes, as to introduce remedies, however appropriate, into the same organ to cure asthma; since both are diseases of the same membrane, and depend alike on local causes.

If local and astringent applications, when applied to the diseased mucous membrane of the eyes, have the power of arresting chronic inflammation of that organ, reason and analogy alone teach, if we had no facts to sustain this doctrine, that a similar result must be produced in applying the same remedies upon the same membrane in the bronchial tubes. This theory is not

only strictly philosophical, and in perfect harmony with every well-known law of medical science, but is further supported by an accumulation of facts, observation, and experience, which must preëminently establish its claims upon the intelligence and judgment of every thinking, reflecting individual.

In assuming the curability of asthma, let it not be supposed that we wish to convey the idea that every case will readily yield to the action of inhaled remedies.

Those inveterate cases of emphysema, depending upon an alteration of structure, enlargement or dilatation of the bronchial tubes into bags, pouches, or cavities, or, in other words, where complete disorganization has taken place, we cannot hope by *any* means, however potent, to repair the injury, though we may always give relief. But where the disease depends, as it does in a great majority of cases, upon a morbid irritable condition of the mucous membrane of the air tubes, attended by spasms of their muscular coat, we regard it perfectly under the control of remedies administered by inhalation; and, by faithful application and perseverance, the patient is seldom disappointed in his expectations of a cure. Again, when the disease is dependent upon ulceration of the mucous membrane, attended with a morbid, purulent expectoration, by inhalations of a suitable character, we can speedily change the nature of the secretions, and by setting up a healthy action in the parts, we soon overcome the susceptibility of the air tubes, and restore them to their natural elasticity and healthy tone.

A case of unusual severity, illustrating the above, occurred in my practice a little more than a year ago. The gentleman, by occupation, was a stone-cutter, and his disease was probably induced by inhaling the small particles of stone and dust with which the atmosphere is always filled about those engaged in this employment. He had a very severe cough of some three or four years' standing, which was generally augmented during the autumn, or on the approach of winter. His expectoration was also profuse, amounting to nearly a pint in twenty-four hours. He was subject to severe paroxysms of asthma, which had increased to such a degree that he was frequently unable to lie down for many weeks together. In short, his disease was fast undermining the general powers of the system, and his symptoms were unmistakably those of ulceration of the bronchial tubes. I prescribed the usual alterative and astringent inhalants employed by me in these cases, and I had the satisfaction to see an amendment in his symptoms in a few days, so that he was able to lie down and sleep comfortably all night. His paroxysms from week to week became less frequent, his cough gradually subsided, his expectoration diminished in quantity and improved in character; and, in addition to these symptoms, his general health and strength returned; and in a little more than three months he was able to resume his business.

Most cases of asthma may be very soon relieved, but the time required to perform a radical cure must necessarily be longer than in ordinary cases of bronchitis.

This is owing to the extreme sensitiveness of the lungs, which always exists in this disease, and the great liability to relapses from the slightest atmospheric vicissitudes. Moreover, the strong force of habit which the system has acquired by a long continuance of the disease, like moral habits rendered inveterate by age, and becoming a sort of "second nature," is always more difficult of cure, and requires more time and perseverance to conquer.

Many patients, in view of the fact that they have so frequently been disappointed in their expectations of a cure under the ordinary modes of treatment, are not inclined to persevere a sufficient length of time to give the system a full and fair trial. This undoubtedly accounts for many failures which otherwise would not occur. Relief may, in all cases, be speedily obtained; but a permanent, radical cure can only be effected by continued application and unremitting perseverance.

## CHAPTER VIII.

## THE PREDISPOSING CAUSES OF CONSUMPTION, ITS SYMPTOMS AND PREVENTION.

TUBERCULAR PHTHISIS, or, as it is more commonly called, consumption, has from time immemorial been regarded as one of the most fatal maladies which the practitioner of medicine has been called upon to encounter.

It is therefore a subject of infinite importance, not only to the medical man, to an individual or family, but whole cities, countries, and nations are more or less deeply concerned.

Much has been said of the causes which predispose to tubercular disease. By many this disease has been regarded solely of hereditary origin, and the deposition of tubercular matter in the lungs has been attributed to a morbid or faulty condition of the blood. This is certainly an important consideration, deserving our most serious attention.

That a constitutional predisposition can be transmitted from parent to offspring no one at all familiar with the history of tubercular disease will attempt to deny.

But I am fully persuaded that too much importance has been attached to an improper or vitiated state of the

blood, while the causes which have produced it have almost, if not entirely, been lost sight of.

Now, it is well known to all who have given this subject much reflection, that whenever there exists any obstruction in the pipes or air cells of the lungs, so as not to admit a due supply of oxygen into them, the blood becomes changed in quality. The carbon, instead of being expelled by uniting with the oxygen taken into the lungs, flows on, carrying its poisonous and deadly influences to every part of the system. The consequences are that the blood loses its life-giving principle; the red globules are diminished, while the amount of albumen and fibrine in the blood are found to be increased. It may be observed that it is a well-established principle in the human economy, that so long as the oxygen we breathe is in due proportion to the excess of carbon in our systems, the blood must remain pure and nourishing, and neither scrofula nor consumption can originate in such a condition.

But when this equilibrium is disturbed by diminishing the supply of pure air to the lungs, the vitality and energy of the whole system is soon impaired, and that peculiar state of the vital functions, characterized by the name of scrofula, or tuberculous cachexia, is the invariable result. The weakened vital power being now no longer able to preserve the living solids against the destructive agency of the oxygen, a rapid wasting of the muscles and various tissues of the body takes place.

M. Baudeloque, a distinguished French physician, says, "There exists one principal cause of scrofulous disease —

a cause which predominates over all others, and without which perhaps the disease would never develop itself.

“This cause consists in a particular condition of the atmosphere in which the individual resides. With a constant supply of pure air and the sun’s rays, scrofula will seldom make its appearance.”

We are told that tubercular disease is a secondary affection, and we have shown that one of the principal causes which superinduce this state of the system is a deficient supply of pure air, causing an imperfectly oxidized state of the blood.

We have a striking illustration of this principle in the case of wild animals, when confined in menageries, breathing as they must, constantly, a vitiated atmosphere. We see them pine, waste away, and die ; and when examined, show tubercles in the lungs. It is just as idle to expect the rose to bloom when deprived of light and water, as to expect the eye to retain its brilliancy, or the cheek its glow of health and beauty, when deprived of pure air.

The various occupations of life have an important bearing upon the development of this disease. Persons engaged in the various mechanical arts, who, from a want of bodily exercise, do not expand the lungs, and thereby admit a free ingress of air into them, — such as milliners, dressmakers, book keepers, clerks, and many others, whose business confines them the greater part of the day within doors, — constitute no small share of the mortality by this class of diseases.

Tailors and shoemakers, whose business obliges them to

sit constantly in one position, leaning forward, and thus restraining the free movements and expansion of the lungs, are also among the number who annually fall victims to this destroyer.

The inhalation of the various irritating gases to which gilders, workers of brass and other metals, are exposed, may also be regarded as a frequent source of tuberculous disease, from the irritating effects they produce upon the delicate mucous membrane. The air we breathe is also deteriorated by various other circumstances in addition to those already mentioned.

Persons sleeping in small, unventilated apartments, and constantly breathing the same air over and over again, have given conclusive evidence of the health-destroying tendency of such practices.

Think of it for a moment, ye lovers of closed doors and windows: every breath of air you draw, you consume a portion of oxygen, or the living vital principle of the atmosphere, and in return throw off from the lungs carbonic acid gas — an element which is so destructive to life that animals cannot live in it but for a few moments. How many, alas! have lost their lives through ignorance and inattention to this subject, by shutting themselves up in a close room with a pan of burning charcoal, which, in the process of combustion, has rapidly consumed the oxygen in the apartment, and supplied in its stead the most destructive agent to animal life — carbonic acid gas.

Too much attention cannot be given to a proper ventilation of our sleeping rooms and other apartments.

The rooms we occupy, or in which we sleep, should be constantly supplied by a current of fresh air. In the neglect of this important principle, no one can expect to enjoy life or health, a great while at least.

As Dr. Arnött most beautifully expresses it, "These aerial currents or movements are to man what the constant gliding past of a clear river stream is to the fishes which inhabit it; and as certainly as we should destroy the trout in a stream by confining them in a small portion of their watery element until it became a dirty, putrid pool, or as we should distress and injure them, in a less degree, by confinement and privation, so do we destroy and injure human beings when we too closely confine around them a portion of their aerial element."

I cannot leave this subject without a remark upon the use of "*hot air furnaces,*" *anthracite stoves,* and *grates.* These modern improvements, in point of convenience and comfort, may have much to recommend them, and may be regarded, for aught I know, among the highest luxuries of civilized life. But I cannot entertain a doubt but that their introduction has resulted in one of the most prolific sources of pulmonary diseases.

When we see beautiful flowers droop, wither, and die, in our windows, under the malign influence of an anthracite furnace, shall we believe that we are less mortal than they? It is true we may be apparently less susceptible to such influences; but the dry and heated air of our modern parlors so much exhausts and debilitates the system, that we are exceedingly liable to contract disease by

every change of temperature to which we may be exposed.

Hothouse children, like hothouse plants, may appear beautiful for a while; but let them be exposed to the scathing breath of disease, and they soon wither and die.

Another source of injury to the constitution of young persons, which, perhaps, more than any thing else, tends to consumption, is due to an incorrect and servile taste in dress. Many a valuable life has been sacrificed upon the inhuman altar of fashion. This is especially true of the females of our own country. Many of our fashionable ladies would consider themselves highly disgraced by appearing in public with a dress and shoes that every intelligent English woman wears, as a matter of course.

Strangers from abroad, who visit our country, have frequently expressed their astonishment at our mode of dress, so poorly adapted to withstand the severity and inclemency of the weather, in this cold and variable climate. They certainly cannot be at a loss to account for the universal prevalence of colds, coughs, and consumption, among our inhabitants. Thousands, I am pained to say, who would have shone forth as the loveliest and brightest ornaments of their sex, have exchanged their gaudy and fashionable robes for a shroud; because, in an evil hour, they sacrificed comfort, health, and the prospects of a long and useful life, for the sake of making what is termed a genteel appearance.

Well may the philanthropist sigh for a change in

society — for an exemption from that wretched system of thralldom usually denominated fashionable life.

Another cause of early decay in the women of our country, to which I shall only make a slight allusion, is the pernicious practice of *tight lacing*, and wearing tight dresses. This custom is fast disappearing; indeed, it has undergone a great revolution within a few years. How absurd and ridiculous the idea that we should, with a view to display a handsome figure, begin in the very dawn of existence to incapacitate the lungs for the discharge and fulfilment of their healthy functions, by shutting out the very breath of life! since the healthy action of the entire animal economy is so much dependent upon the free expansion and unimpeded action of the organs of respiration. We alone, with our high powers of reason, reserve to ourselves the skill of improving upon the forms of nature. This practice, unfortunately, is not confined to the respiratory system alone; but in the act of compressing the lower portion of the chest, the ribs are unnaturally forced or bent in, and the result is, that the stomach, womb, liver, and other organs, sustain a serious and too often irreparable injury thereby. More, by far, than present consequences follow this mighty evil. Posterity has suffered; the mind of the rising generation, depending in a great degree upon its physical structure, must continually suffer.

The children of weak and unhealthy parents have the seeds of death sown within them; and should they chance to survive adolescence, where is their experience of life?

their knowledge of facts? The aching head, the prostrate body, are not capable of acquiring judgment or expansion. There are many other circumstances I might adduce, which debilitate the system, and strongly predispose to consumption. Among these may be mentioned the excesses of youth, intemperance, licentiousness, keeping late hours, all of which have a direct tendency to undermine the constitutional energies of the system, and induce that general depression of the vital powers which strongly favors the early production of tubercular disease.

Perhaps this is one of the most prolific sources of consumption in the young men of our large cities. Correct habits, regular hours, sobriety, and temperance are the strongest safeguards against the invasion of this terrible foe of human life.

*Want of Exercise.* — It has been said that exercise is life, and indolence is death. Free motion, it is well known, demands free respiration, and free respiration requires nourishing food. Accordingly the man who exercises most requires the most nourishment, from the fact that the more oxygen is taken into his lungs, as his breathing or respiration is increased; hence his greater demand for carbon, or food, and by reason of the increased amount of carbon and oxygen in the body, there must be an actual increase of heat, or an elevation of the temperature of the body.

The blood is composed mostly of *albumen* and *fibrine*. The serum, or watery-looking part of the blood, that rises in the blood when persons are bled, is composed almost

entirely of albumen. In consequence of its thinness it can circulate over the cornea of the eye, in the white membranes and tendons, where red blood, which consists of fibrine and red globules, cannot go. If it did, it would obscure the sight, as we all know. Where food has been submitted to the action of the stomach, the nutriment received from it consists entirely of albumen; and as such it passes into the blood. It can only be changed from that state by passing through the lungs, where it is exposed to the action of the air, and is rapidly converted into fibrine, the material of which muscle, or red flesh, is composed.

From these reflections it follows that the amount of nutriment we receive is in exact proportion to our daily exercise, and that the want of that exercise serves to debilitate the powers of the system, and renders us exceedingly liable to morbid impressions from various causes. But it may be asked, What has all this to do with pulmonary consumption? Simply this: tubercles are composed entirely of albumen, and so are scrofulous tumors of the neck, sometimes called "king's evil," white swellings of the knee joint, tubercular consumption: all are caused by deficient exercise, and a want of the healthy and faithful discharge of the functions of the respiratory organs.

The ancients as well as moderns have always attached a great degree of importance to *exercise*, and even carried this idea so far that they considered it the sole instrument and means of cure. Galen and Sydenham, the

great founders of medicine, whose names will be forever dear to medical science, were so sanguine in their opinion of its salutary effects that they were led to give to it a latitude almost unbounded. And of the different modes of exercise there is none so well adapted to secure the greatest amount of good as that of walking. This gives greater action to the muscles of the limbs, whence the circulation is more feeble, on account of the distance of the vessels from the heart. It is almost incredible how much the constitution may be strengthened by daily and well-regulated exercise.

But exercise, to be beneficial, must not be pursued as a task, nor taken with the spirit of martyrdom, as we would swallow a dose of salts — for the sake of the good to be accomplished.

The mind should be amused, the eye delighted with varied and novel scenes. The old Roman poet understood well how much the wearisomeness of even a toilsome journey is beguiled when he wrote, "*Comes jucundus pro vehiculo est*" — A pleasant companion is better than a carriage. I would say to the consumptive, Exercise, exercise! Do not let any circumstance deter you from taking daily exercise in the open air. Go abroad often in the wood or in the field; extend your walk a little farther every day; and thus the blood will be made pure, and rendered fit for the circulation, causing the countenance to become radiant with the glow and tinge of health, and the eye to sparkle with lustre and intelligence.

The illustrious Sydenham affirms that he has cured

both tabes and phthisis by horse exercise and long journeys, when all medicines had utterly failed, and this not only in the incipient stage, but after night sweats and diarrhœa had actually taken place.

Sir James Clark, with a view to increase the capacity and strength of the lungs, recommends the person, while standing, to throw his arms and shoulders back, and while in this position to inhale slowly as much air as he can, and repeat this exercise several times in succession. To those whose chests are narrow, and whose lungs are weak, this cannot fail of being a most important and useful exercise.

*Cleanliness.* — Among the various causes which predispose to pulmonary affections, a want of cleanliness is not to be considered as the least important. When we reflect that the insensible perspiration which is constantly escaping from the surface of the body is estimated at about four pounds during a period of twenty-four hours, the importance of preserving the functions of the skin in a healthy condition by a constant and uniform attention to cleanliness is manifest, and should under no circumstances be disregarded. When this duty is neglected, the pores of the skin necessarily become obstructed, in consequence of which the egress of the perspiration is prevented, and its poisonous and deleterious properties, instead of being expelled through their natural channels, are again driven back into the system, producing more or less constitutional derangement and sanguineous congestion, particularly of the respiratory organs.

Such are the intimate relation and sympathy existing between the lungs and the external surface of the body, that in no case can there be a morbid condition of the one without a corresponding morbid result in the other. Personal cleanliness is not only an important duty, with a view to the preservation of health, but its observance may always be regarded as an amiable virtue, and a source of much comfort and satisfaction to all who pretend to the least degree of politeness and delicacy. In view of the highly organized condition of the skin, and of the important functions it performs in the animal economy, there cannot be a doubt, that if more attention were paid to keeping open the pores, by frequently bathing and freely employing friction upon the surface of the body, it would be the means of avoiding much sickness and suffering, which are now endured from a want of attention to this important duty.

*Cold Bathing.* — Persons who are daily in the habit of applying cold water to the surface of the body seldom suffer from sudden changes of temperature by taking cold. The ancient Romans were not without some knowledge of this principle. After enduring the most violent athletic exercises in their various sports, they were in the habit of plunging into the River Tiber while warm and panting with their efforts. That they greatly promoted their physical strength, and their powers of endurance by such a course, none can doubt. Nothing is better adapted to give tone and energy to the nervous system than cold water, regularly and systematically

applied. To the consumptive I would recommend the use of the sponge bath, with cold water, if it can be endured. If reaction is too feeble, the water may be used somewhat tepid at first, and lowering the temperature gradually until it can be borne cold. Or, with a view to increase the activity of the circulation upon the surface, I recommend the use of equal parts of alcohol and water, adding a small quantity of ammonia. In all cases the sponging should be immediately followed by briskly rubbing the entire surface with a coarse towel or crash, until a gentle glow is produced, and vigorous reaction ensues.

The sponging should never occupy more than a few minutes at most, in order that no chill may occur during the operation.

Bathing with cold water acts as a powerful stimulus to the whole system; it imparts life and energy, and sends a thrill of pleasurable excitement to every part of the body. The immediate effect produced upon the system is a sudden shock, a sensation of cold, followed by as general a sensation of warmth. This effect is called reaction, because it resists an external impression which might otherwise result in injury. During the process of bathing, the temperature of the patient's room should always be elevated above the usual standard. The best time for bathing or sponging the body is immediately on rising in the morning.

Bathing in sea water is powerfully tonic, especially in children of a strumous habit. Under circumstances of the greatest debility, by the simple use of the salt water

bath, I have seen, in the course of a few weeks, the health rapidly improved, and all the powers of the system invigorated in a wonderful manner.

*The Use of Tobacco.* — In noticing the various predisposing causes of disease, I cannot refrain from making a passing allusion to that disgusting practice of smoking and chewing tobacco. Its pernicious effects upon the nervous system can hardly be estimated. The oil of tobacco, it is well known, acts upon the system as a deadly narcotic, a few drops of which are sufficient to kill a large-sized animal.

Its effects upon the nervous system of the individual who indulges in the daily practice of smoking or chewing are no less destructive, though the process may be somewhat more gradual.

It is true, it does not kill him immediately, but only because he does not take a sufficient amount at one time.

It also acts as a constant drain upon the system, in its effect upon the salivary glands, causing an immoderate flow of saliva from the mouth, which is not only very disagreeable, but robs the stomach of its most important agent of digestion; frequently causing nervous debility, dyspepsia, and a long train of other disagreeable and unpleasant symptoms, too numerous to mention. Excessive smokers, it will be found, have always more or less difficulty about the throat. The relaxing and debilitating effects which it produces upon the delicate mucous membrane almost invariably lead to inflammation of the mucous follicles, the ultimate tendency of which is to

creep silently down into the lungs. There are some manly young spirits, fortunately for themselves, who, though they have tried hard, as they say, "can never learn to smoke." Neither time nor space will allow us to speak of all the evil consequences which flow from this foolish practice. Suffice it to say, a perseverance in the habit never fails to bring with it its own recompense.

*Food.* — As air is the first want we experience on our entrance upon life, and as fresh supplies of this element are constantly necessary to impart vitality and energy to the system, so the second want of our existence is dependent upon nourishing food, in order to supply the constant waste which is daily taking place in our bodies.

Air and food, then, are the two great sources of animal life. With regard to the diet most proper for the consumptive invalid, I would always recommend that it be selected with a view to the greatest amount of nourishment in the smallest compass. In short, every kind of food that tends to build up and sustain the powers of the system may be taken in such quantities, and at such seasons, as may best agree with the patient; being always careful to avoid the use of rich pastries, or any articles of diet which contain much grease, as these almost invariably serve, in a greater or less degree, to derange the stomach.

No kind of diet is so well adapted to the consumptive invalid as animal food. The red meats, as mutton, venison, and beef, are regarded as the most nutritious, and easy of digestion. Including the lighter and less exciting

kinds, we have veal, chickens, and various kinds of fowls. Some have advocated an exclusive vegetable diet; but this theory has no foundation in physiology, nor in any of the well-known laws which govern the animal economy; hence it requires no further refutation. That a mixture of animal and vegetable diet is better adapted to our climate than an exclusive vegetable diet, no one at all acquainted with the process of nutrition, and the true source of animal heat, can doubt. The system of *low diet* and *starving*, in the treatment of consumption, has fortunately had its day. With regard to the quantity of food necessary to supply the waste of the system, no definite rules can be prescribed or observed. This must always depend upon a variety of circumstances and conditions; viz., age, sex, strength, size, and habit are to be consulted.

Nevertheless, there is one golden rule to be observed, which will apply to every individual, and should never be disregarded; and that is, to keep within the bounds of satiety, and cease eating when the first cravings of the appetite are satisfied. With every one, then, there is a moment when the relish given by the appetite ceases; a single mouthful taken after this may oppress the stomach.

Another matter equally important is, that the food should be well masticated, so as to be properly mixed with the saliva before being swallowed; the time devoted to eating is usually not sufficient to accomplish this end; especially true is this of most Americans. The English,

who, as a race, seldom complain of dyspepsia, and enjoy sounder health, it is well known, are particularly noted for slow eating.

A very common error in eating is the almost universal practice of taking too much drink during our meals, inasmuch as it serves to dilute the gastric juice to such an extent as to very much weaken its solvent powers, and thus lay the foundation for dyspepsia and its innumerable train of followers.

In speaking of different articles of diet, I would not forget to notice that pure milk is an article of food which cannot be too highly commended, as it is not only easy of digestion, but possessed of highly nutritive qualities; and in weak, consumptive habits, where the digestive organs have been much enfeebled by disease, it is decidedly the most eligible of all nutritive substances, especially when it does not disagree with the stomach.

The practice of eating late suppers, I need hardly say, is exceedingly pernicious, and should never be indulged in by any one who values refreshing sleep and uninterrupted health.

*Passions.* — “*Mens sana in corpore sano*” — A sound mind in a sound body. From the intimate and mysterious connection which exists between the mind and the body, it follows that they mutually act and react upon each other. And we would no sooner expect to preserve the healthy action and integrity of the various organs of the body while under the influences of grief and despondency, than we would expect a watch to give us the

correct time when its delicate main spring was bent or otherwise impaired. It is well known that any circumstance which has a tendency to depress or excite the mental emotions for any length of time predisposes to disease.

Long-continued grief for the loss of cherished friends, also severe calamities and misfortunes, by their debilitating effect upon the heart and nervous system, retard the circulation of the blood, giving rise to indigestion, loss of strength, and a gradual wasting away of the body, generally terminating in a fatal organic disease of the heart, or otherwise in consumption.

Joy, or that passion of the human mind which results from some peculiar gratification of our senses, serves to increase the heart's action, causing the countenance to brighten and the eye to sparkle with animation and delight.

We have many instances on record where the passions, when unexpectedly excited, have produced instant death; but when moderate, and producing only what may be termed a cheerful and happy frame of mind, it may be regarded as one of the most favorable circumstances for the enjoyment of perfect and uninterrupted health, as well as for the cure of disease. To keep all the emotions of the human mind in a well-balanced state is an important desideratum — one upon which our happiness, health, and long life depend.

Of the various passions and emotions of the human heart which claim the attention of the medical man, there

are none so important as those of hope and fear. And it is only by encouraging the former, and obviating the disposition to the latter, that we can expect to succeed in many of our most formidable diseases.

When life and death were poising upon a delicate balance, and when hope had well nigh yielded to despair, how often has the presence of the physician, by a simple word of encouragement, dispelled the sombre cloud, cheered and buoyed up the desponding, sinking spirit!

To the human heart there is not a more salutary cordial than the influence of hope; and like a guardian angel it attends us through life, and is the last to forsake us at death. It is natural for all who are afflicted with any disease of a dangerous character to entertain fear and anxiety with respect to its termination. Such a state of mind, it is well known, never fails to aggravate the disease, and greatly lessens the probabilities of a final recovery. When baneful despondency has once taken full possession of the mind, little or nothing can be done to ward off the fatal stroke of death.

A well-regulated mind, and a proper control of those feelings, appetites, and passions, which a kind Providence has given for our enjoyment and happiness, the pleasant excitement of business joined with innocent and rational amusements, together with an approving conscience of fulfilling our great destiny, are the best means of not only averting disease, but of laying the foundation for future comfort and prosperity in life.

## CHAPTER IX.

PHYSICAL SIGNS OF PULMONARY CONSUMPTION BY  
AUSCULTATION AND PERCUSSION.

THE passage of air in and out of the lungs is characterized by peculiar sounds denoting healthy or diseased action of these organs.

When we apply the ear or stethoscope (which is only a kind of ear trumpet) to the chest, allowing the lungs to be in a healthy condition, we hear a low, murmuring, rustling sound, similar to a current of air passing through the leaves of a forest; this is called the respiratory murmur. Whenever the lungs become diseased this sound becomes changed.

The act of detecting these morbid changes in the lungs is called *auscultation*, from the Latin word *ausculto*, which signifies *to listen, to hear*. Laennec was the first to introduce to the profession examinations of the lungs by means of the stethoscope, in the year 1816. Its novelty at first excited not a little attention, and as is usual in the introduction of any new theory or system differing in any degree from that pursued by our fathers, it was denounced as quackery, and unworthy the notice of the profession. It is needless, however, to say that its advantages are

now universally acknowledged, and its practice adopted by every physician who lays any claim to scientific improvement.

Keeping in view the object of this work, and the limits assigned to it, I must pass over many of the more minute details of the various delicate sounds which indicate different diseases of the lungs and heart, and proceed to notice the more prominent and leading signs which characterize these diseases.

In applying the ear or stethoscope to the chest, the practised and well-disciplined ear can detect as readily any varieties of sound, as a good pianist can detect those notes of a piano that may happen to be out of tune. First, then, it is requisite that we should be well acquainted with the respiratory sounds of the healthy chest, in order that we may be capable of appreciating those sounds in a state of disease. A thorough knowledge of this subject can only be gained by close application, observation, and experience. In the healthy chest we find a low, murmuring sound, caused by the dilatation of the air cells as the air passes into them. When the air passes out, or during expiration, we hear the same murmuring sound, but less distinctly.

The healthy and natural respiratory sounds of the chest are composed of the prolonged and distinct murmur of inspiration and the more feeble and short murmur of expiration. Any variation from this, for example, when we find expiration more prolonged and distinct, must be regarded as an indication of disease. Or, when the

respiratory murmur is feeble in one part, and unusually distinct in another, it indicates an obstruction of the air cells; or it may be the consequence of enlargement or dilatation of the cells.

In either case, the friction against the cell walls is diminished, and the respiratory murmur must be proportionally feeble; and when we find it entirely wanting in any part of the lungs, it must be the result of complete obstruction in the part. Again, we sometimes find the respiratory sounds unusually loud and distinct; when this occurs in the adult it is called *puerile respiration*, and may be taken as an indication of disease in some other portion of the lung. It should be borne in mind that in childhood, or during the period of infancy, the respiration is always louder and more distinct than in the adult.

In the progress of pulmonary disease, we not unfrequently find, on examination, a *blowing sound*,—a sound similar to that produced by blowing through a tube,—which is called *bronchial respiration*. This latter respiration may arise from a variety of causes; in short, any cause affecting the natural proportion between the number and size of the bronchial tubes and air cells, will bring about this result. When a cavity exists in the lungs, communicating with the air pipes or bronchial tubes, we may have what is termed *cavernous respiration*, which is produced by the vibrations of the air against the walls of the cavity, resounding in a hollow space.

*Percussion.*—This simple and very natural method of examining the lungs consists in gently tapping the wall of the chest with the ends of the fingers, and listening to the sounds thus produced.

Avenbrugger, a German physician, had the honor of introducing this scientific method to the profession in the year 1761. He did not live, however, to enjoy the rich reward and distinguished honors that were eminently due to him for such a valuable and brilliant discovery.

It was the fortune of Corvisart, a celebrated French physician, to rescue it from the obscurity and neglect into which it had fallen. Various substances have been used to place over the part of the chest we wish to examine in the act of percussion; such as bone, ivory, a piece of flat caoutchouc: these are called *pleximeters*.

The pleximeter I employ, and the one which I regard in all cases preferable, is the fore or index finger. This should be pressed firmly upon the chest, and then struck smartly, yet gently, with the ends of two or three fingers of the right hand. To illustrate this: The most common observer has witnessed the difference in degree and intensity of sound given out by striking different bodies. If we strike with the finger any hollow vessel, we get a full, clear, and hollow sound, somewhat prolonged. Now, if any solid substance be placed in the vessel, the sound will become dull, and very much changed in character.

The chest may be compared to a hollow reservoir full of air; the lungs, being light and spongy, are also filled

with air ; so that, when no tubercular deposits are present, or no obliteration of the air cells has taken place, we shall find the same clear and hollow sound, on percussing the chest, that we find on striking a barrel, or any other vessel filled with air.

In many conditions of the lungs, where the respiratory murmur is observed, as in emphysema, the advantages of percussion are of the greatest importance. In this state of the lungs, so far from there being any dulness on percussion, we find a distinct, hollow sound ; and thus the idea of there being tubercular deposits, or consolidation of the lungs, is at once dispelled. When tubercular disease is suspected, the part to which our attention should first be called, and which we should examine with the closest scrutiny and care, is the superior lobe of the lung, lying directly below the collar bone.

If we find the respiration in this part soft and clear on both sides, and the resonance of the voice also equal in both lungs, the evidence is conclusive that there are no tubercles present in that part of the lungs where they are most frequently found.

If, on the other hand, we find dulness on percussion, and an absence of the usual respiratory murmur, the presumption is, that the lungs have become consolidated by the deposition of tubercles, or by inflammation.

*Pectoriloquy* is that peculiar condition of the lungs, where the voice can be heard distinctly coming from the chest, on applying the ear or stethoscope to the part, and generally indicates the existence of a cavity. The natu-

ral respirations, in ordinary states of health, average about twenty in a minute.

*Mucous Râle.* — This is the name given by the French to that peculiar rattle caused by the passage of the air through a secretion of fluid, or tuberculous matter, with which the bronchi and air cells are filled. It is met with in all diseases of the lungs in which there is an increased secretion from the mucous membrane, and is characteristic of the advanced stages of bronchitis, where suppuration has taken place; and also in phthisis, where the softening or suppurative stage has commenced, and an abscess or cavity has been formed, and the matter from the cavity communicates with the bronchi.

*Crepitating Râle.* — When the passage of the air through the pipes and cells produces a crackling sound, similar to burning salt, it is indicative of pneumonia, or inflammation of the lungs.

I have now made you acquainted with a few of the most important physical signs of the healthy and diseased lungs. Much more might and ought to be said on this important subject. For it is lamentably true that few physicians, comparatively speaking, have availed themselves of the light afforded by auscultation. It has usually been sufficient for them, in their examinations, to make a few rough and careless thumps on the upper part of the chest, or, with the ear or stethoscope, listen a moment through three or four thicknesses of cotton or woollen clothing; and with such an examination hundreds

have been pronounced sound, or perhaps the difficulty has been called a slight bronchial irritation, when a more thorough and careful investigation would have traced the disease to a deeper source. Now, such an examination is a mere farce, and can only serve to deceive and conceal for a time from the patient his true situation, and bring into unmerited disrepute one of the most valuable discoveries in medical science. The value and importance of a correct diagnosis to the patient cannot be over-estimated; indeed, it is to him often a matter of life and death. Nature cannot be thus interrogated; and until her operations are more closely observed and carefully studied, we can never hope rightly to interpret them.

## CHAPTER X.

## PULMONARY CONSUMPTION.

CONSUMPTION, or tubercles in the lungs, has in all ages been regarded as one of the most fatal maladies. The subject cannot fail, therefore, to be one of deep interest ; and it assuredly demands the serious attention of every practitioner of medicine who has at heart the good of the human race.

Tubercles are generally found first in the upper and superior portion of the lung, and are in the form of small granulations, or specks, of a grayish, semi-transparent appearance ; hard at first, and varying in size from a pin's head to that of a small pea, and resembling somewhat a millet seed ; from which circumstance they take the name of *miliary* tubercles.

These morbid productions in the lungs gradually undergo a change, increasing in size, and losing their transparency, and becoming quite yellow and friable ; in which state they receive the name of *crude* tubercles.

The time required for the development of tubercles in the lungs is variable. They may remain dormant or inactive for weeks, months, yea, years, without undergoing any change, or giving the least warning of their presence,

save a little shortness of breath on running up stairs or ascending a hill. Any exciting cause, such as a violent cold, suddenly checked perspiration, irritation of the lungs, by whatever it may be produced, is liable at any time to bring them into a rapid state of development. In acute phthisis, Louis says, they may reach the size of a pea in three or four weeks, in which case they occasion the most alarming dyspnœa.

The most natural site for the deposition of tubercular matters in the lungs is the cellular tissue, though it is not uncommon to find them deposited on the mucous membrane of the bronchial tubes and air cells of the lungs. One of the first symptoms of tubercles in the lungs is shortness of breath, or hurried respiration, which is occasioned by the compression of the surrounding cellular tissue, and the obliteration of the air cells, by which the capacity of the lungs for the reception of air is diminished.

The effect produced by the action of tubercles in the lungs is like that of any foreign substance, and nature institutes the same course to get rid of them.

First, inflammation takes place in the surrounding cellular tissue; this stage is followed by ulceration and a softening or breaking down of the tubercles into a common mass: the matter finding its way into the bronchi, it is coughed up, and a cavity, or tuberculous abscess, is formed. Tubercles are generally found collected in clusters or groups, and during the process of softening and ulceration of one crop, another crop is forming in another portion of the lung, and passes through the same destruc-

tive changes, the progress being usually from above downwards. The precise nature and character of a tubercular deposit is as yet but very imperfectly understood; suffice it to say, they may be regarded as one of the peculiar manifestations of the scrofulous diathesis. They are inorganic, no blood vessels having been traced into them even by the finest microscope.

The symptoms of pulmonary consumption are often very obscure — such as to elude the attention of the patient perhaps for months. Strange as it may appear, many deceive themselves, and are ready to believe the existence of any other disease rather than that of the lungs. It would be almost impossible to describe minutely all the symptoms in a disease so varied in its course as consumption. One of the first indications, however, is a slight cough, which, in the absence of expectoration, or constitutional disturbance, is generally regarded as a “common cold.” After a few weeks, the cough perhaps becomes more frequent, especially on lying down at night, or on rising in the morning, accompanied with some mucous expectoration, and a somewhat accelerated pulse, particularly towards evening. It should be remarked, that a cough is not invariably present in the forming stage of this disease. The patient may only complain of a general sense of lassitude or weariness of body, and inability to perform any physical exertion without great fatigue, a precarious state of the appetite, and, in addition to these symptoms, the patient may complain of a sensation of oppression or tightness across the chest; and these

symptoms may be followed by a sudden and unexpected attack of hemorrhage, or bleeding at the lungs. Under these circumstances, the case becomes doubly suspicious, and the patient at once wakes up to a real sense of his danger.

If, under these circumstances, we make a careful examination of the lungs, we shall generally find, on percussion, a degree of dulness directly below the collar bone. This may be very slight, and by the careless or inexperienced physician may be entirely overlooked. In addition to this, we shall find the respiratory murmur more feeble, and the expiration of breath somewhat prolonged. Or, if the inspiration is harsh and jerking, we can no longer mistake the true character of the disease: tubercles exist in the lungs. The countenance assumes, as the result of the hidden disease in the lungs, a peculiarly cachectic appearance; the patient finds he cannot walk fast, or perform the most trifling physical exertion, without being put out of breath. These are a few of the most prominent and leading symptoms which constitute the incipient or forming stage of consumption, and should not be allowed to pass by unheeded, as this period of the disease must always be regarded the most favorable time for treatment.

The extent to which this disease has often progressed without exciting the least suspicion or alarm is truly surprising. To illustrate this: I was consulted by a lady some time during the month of April, 1855. She came into my office very indifferently, expressing very little

anxiety or concern, remarking that she only came to gratify her husband's wishes, and that she had not the least idea that there was any difficulty about her lungs beyond a slight cold. Her husband, however, manifested no small degree of anxiety, and expressed a desire that I would carefully examine her lungs. I did so; when, as I anticipated, my worst fears in regard to her case were fully realized. I found one third of her left lung entirely destroyed, and the other seriously affected.

In the second stage of the disease, the symptoms assume a more marked character, distinguished by a loss of appetite, diminished strength, increase of fever, and a rapid wasting away of the muscles of the body. The expectoration now becomes more abundant, changed in quality, and frequently streaked with blood; it ceases to be mucous, and is converted into thick, heavy, yellow matter. The expectoration often comes up in fleecy masses, resembling flakes of cotton, and may be seen floating in the fluid expectorated. This stage of the disease is also accompanied with more or less hoarseness, and the countenance is generally pale and sunken during the day, and a circumscribed flush is seen to make its appearance on the cheek towards evening. The chills become more severe, and the hectic fever is now fully established. The digestive organs, sympathizing with the destructive changes going on in the lungs, also become very much impaired, and the food is frequently ejected from the stomach during the violent fits of coughing. There is, too, a strong tendency to diarrhœa, and in females the

menstrual functions almost, if not entirely, cease. It is during this stage that the softening and breaking down of tubercular deposits take place.

The third, or last, stage has been termed the colliquative stage, from the frequent attacks of diarrhoea, the copious night sweats, and profuse expectoration, which are present during this period of the disease. It is in this stage of the disease that the vital powers, being no longer able to bear up, begin to yield. The cough is frequently very distressing, and from the extensive ulceration and expectoration of tubercular matter, large cavities or excavations are formed; and the gurgling, rattling noise can be distinctly heard, as the air passes in and out of these cavities. At this advanced period of the disease, the chest becomes remarkably changed in appearance. From being round and prominent, it becomes depressed and flattened; the shoulders are elevated and inclined forward; and as the disease advances, the breathing becomes more and more difficult. The feet and ankles generally swell during the day, though the swelling disappears in the course of the night.

In this state, verging between life and death, the patient not unfrequently lingers on for many weeks, his senses remaining perfect even to the last expiring struggle.

One of the most remarkable features in the whole history of the consumptive is, that hope never forsakes him. Although conscious of his own decay, he seldom excludes from his mind the possibility of a final recovery; and the

unfortunate victim gradually sinks into eternity, indulging the fond hope of restoration, even to the last.

One of the last symptoms, and one which may be regarded as a swift precursor of approaching dissolution, is an aphthous condition of the mouth and throat.

I have very briefly given a history of the symptoms, development, and progress of tuberculous disease, and the various phenomena that characterize and accompany it. I cannot, however, pass over this subject without noticing, in a few words, one other very important symptom, viz., "*hemorrhage*," or "*bleeding at the lungs*."

"*Spitting of blood*" is not uncommonly a very early symptom in phthisis. It frequently occurs before any of the usual symptoms are noticed, and when the individual, by common observation, would be regarded in a state of health. The blood is sometimes trifling in amount, being mixed with the mucus, expectorated, and occurring at intervals for several days. At other times the discharge is copious, and even alarming, in quantity, and comes on very suddenly and unexpectedly.

Various opinions have been expressed with regard to the cause of hemorrhage; but from a careful observation and inquiry into the history and symptoms of these cases, we have the most conclusive evidence that it is the result of tubercular deposits in the lungs. The lamented Dr. Swett, for a long time one of the physicians of the New York hospitals, remarks, in his work on diseases of the chest, that "whenever he is called to a patient who has had bleeding at the lungs, he always marks him as a probable

case of tuberculous disease." Persons who are attacked with bleeding at the lungs not unfrequently deceive themselves with the idea that the blood only comes from the throat; and I have even known physicians themselves to cheer their patients with such flattering assurances.

But let me say to those who have suffered from these symptoms, however small the quantity of blood may have been, it speaks a terrible warning, and we have every reason to believe that tubercles already exist in the lungs.

The reason why tubercular deposits should cause bleeding at the lungs is simply this: The pressure of the tubercles upon the small vessels in the lungs retards the circulation; in consequence of which the blood vessels become overloaded or distended to such a degree that they are ruptured, and a discharge of blood takes place. In some instances, where the quantity is very small indeed, it probably exudes through the delicate coats of the blood vessels, and is expectorated.

Hemorrhage seldom proves fatal in its immediate consequences and effects. When this does occur, it is always in the latter stages of the disease, and is the direct result of ulceration destroying some large vessel, and causing a sudden gush of blood to flow out, filling up the entire cavity of the lungs in a few minutes; when death is the certain and inevitable result.

This is a phenomenon, however, which rarely happens. I have already adverted to the fact, that hemorrhage may be the first noticeable symptom of the disease. Again,

it may not occur until the disease is far advanced ; and indeed, in a few instances, consumption runs its entire course without even causing a tinge of blood in the matter expectorated.

Andral, an eminent English pathologist, has given it as his opinion that hemorrhage occurs in about five cases out of six of those who die of consumption. Louis, a no less eminent French writer, has found it to take place in fifty-seven out of eighty-seven cases ; and Professor Walshe, of the London Consumptive Hospital, in eighty-one cases out of a hundred.

It is a very common occurrence, after an attack of bleeding at the lungs, to hear patients remark that they feel decidedly better ; and, indeed, we frequently find an improvement in all their symptoms. As soon as the lungs have relieved themselves from the increased amount of blood which has accumulated in them, the chest at once feels lighter and more comfortable, and the operation of breathing is more naturally performed. This can only be temporary relief, and should not be regarded as a removal of the difficulty.

The same causes that produced a hemorrhage in the first instance are still at work, and will, if not arrested by a judicious system of treatment, assuredly lead on to a fatal issue. There is no time to be lost. Whatever is done must be done quickly. As you value health, or prize life, begin *now* to resist the progress of this terrible disease. Do not wait, as is, alas ! too often the case, until the grim tyrant has established his devastating

reign over the system, when he may set at defiance every power to save.

Sir James Clarke divides consumption into five different varieties, or species; differing from each other in the rapidity of the progress, severity of the symptoms, and their peculiar mode of termination.

1. Acute consumption.
2. Chronic “
3. Latent “
4. Febrile “
5. Consumption of childhood.

*Acute Consumption.* — The first variety, is appropriately denominated “*galloping consumption*,” from the violence of its symptoms, and the fearful rapidity with which it passes through its several different stages. This form of the disease usually selects its victims from the ranks of the young.

All the ordinary symptoms attendant upon this disease present themselves from the first in an unusual degree of severity, and the patient not unfrequently sinks under the disease in the course of six or eight weeks. Andral mentions four cases, three of which number died during a period of from twenty-one to thirty-five days.

*Chronic Consumption.* — Bayle and Laennec were the first to call attention to this form of the disease, and showed its identity, whether occupying many years or proving fatal in a few weeks. The acute form, as already remarked, generally occurs in young subjects; the chronic at a more advanced period of life — from the fortieth year and upwards.

In this variety of the disease, the tubercular diathesis is less strongly marked than in the former, and the symptoms are generally more obscure, especially in its earlier stages. As the disease advances, however, the patient complains of lassitude and a want of physical energy. His cough is very slight; he has no fever, chills, or night sweats; his appetite continues very good; yet there seems evidently to be a gradual loss of flesh and strength. His friends flatter themselves with the idea that his disease is confined to some other organ than the lungs, — perhaps the stomach or liver, — as the patient generally complains of more or less indigestion.

The cough generally subsides, and his health materially improves during the warm weather of summer; but as the cold weather again returns, his disease assumes a more serious aspect, his cough and expectoration increase, and are aggravated at every change or vicissitude of the weather.

In this precarious state of existence, the patient may linger on for many years, now a little better, and then a little worse. From the mildness of the symptoms in this variety of consumption, its importance is very liable to be overlooked, and the most favorable opportunity for arresting the disease is frequently allowed to pass by unimproved. In many cases, the disease has doubtless existed for years, the patient being scarcely aware of any difficulty beyond an ordinary cold. It is true he may have been troubled somewhat with shortness of breath, accompanied with a slight cough and expectoration, and more or less

diarrhœa; but the approach and progress of these symptoms have been so gradual, that they have not been considered worthy of special attention, and the patient has been permitted to pass on, the powers of life gradually becoming diminished, until some sudden cold, or other exciting cause, has superinduced an attack of bronchitis or pneumonia, which, under ordinary circumstances, would terminate favorably, but, acting upon a previously diseased state of the lungs, speedily proves fatal.

*Latent Consumption.*— This variety of the disease is called *latent* for the reason that tubercles exist in the lungs, in a dormant state, for a long time, without giving rise to any of the ordinary symptoms indicating their presence, such as pain, cough, expectoration, hemorrhage, &c. Nevertheless, their work of destruction, though silent and unobserved, is no less certain.

The physical signs, and the various symptoms relating to this form of disease, are frequently so obscure as to demand the most careful scrutiny and closest observation on the part of the physician, to detect its real character. We have reason to believe that in many instances the disease passes through its first and second stages without even awakening suspicion on the part of the nearest friends and relatives. So far from this disease always being indicated by a cough, Louis has remarked that he has known the disease to exist in many instances from six months to two years without the presence of this most common and universally acknowledged symptom.

If, however, we find the patient declining in health,

the countenance assuming a pale or cachectic aspect, and in addition to this, he grows thinner and weaker day by day, and the food he takes affords him neither nourishment nor support, though there may be no cough, fever, nor expectoration, we have great cause to be fearfully apprehensive with regard to the safety of his condition.

Our attention should at once be directed to the lungs as the probable seat and cause of all the mischief. On this point we have also the testimony of Sir James Clark, whose opinions should be always highly valued. He remarks that, "We have known more than one example of extensive tubercular disease of the lungs, discovered on a post mortem examination, when, during life, the disease was looked for in the bowels."

Thousands of valuable lives have doubtless been sacrificed on account of errors of judgment committed in this way; whereas, if, in the earlier stages of the disease, a correct diagnosis had been formed, and the proper remedies been applied, most, if not all, might have been saved.

*Febrile Consumption.*—One of the most remarkable features of this variety of the disease is the suddenness of the attack. It commences usually with the ordinary symptoms of a "common cold"—severe chill, followed by fever, which generally continues throughout the entire course of the disease, and may be mistaken for bilious or catarrhal fever. These symptoms are soon followed by a cough, and an expectoration of a light, frothy appearance, occasionally streaked with blood. The patient usually complains of pain in one or both sides, with tight-

ness across the chest, and more or less difficulty of breathing. These symptoms usually continue without much interruption from six to eight weeks, and the patient not unfrequently sinks down and dies in despite of our best efforts.

*Consumption of Childhood.*—This variety of the disease is not uncommonly mistaken for whooping cough, as the cough occurs generally in paroxysms; and, from the inability of the patient to expectorate, the matter is rarely observed. In this form of the disease we have no hemorrhage from the lungs, and the hectic fever is less perfectly developed than in the adult. The perspiration is also less abundant, and chiefly confined to the head and neck. We find considerable derangement of the stomach, and a strong tendency to diarrhoea; and the probability is, that the mesenteric glands are involved in the disease, the patient wasting away, however much nourishment he may take into his stomach. The respiration is hurried and difficult, the eyes sunken, the countenance pale and anxious, with a peculiarly livid appearance, and the lips of a purple hue.

A large proportion of the deaths in childhood occur annually from this peculiar form of the disease.

The period of life when most deaths occur from consumption after the fifteenth year, is between the ages of twenty and thirty; the next period is between thirty and forty; the next between forty and fifty; the mortality gradually diminishing after the latter period. There is, however, no period of life exempt from the fearful ravages

of this disease. From early infancy to extreme old age it has its victims. But the period of all others, in which it commits its greatest ravages, is in childhood. Children under fifteen years are by far the greatest sufferers.

This is a fact not generally understood, and as such is deserving of our most serious attention.

We again quote Sir James Clark, who says that he has met with several cases of infants dying of phthisis within the first year, in whom the lungs were not only extensively tuberculous, but contained large cavities with all the characteristics of those found in the lungs of adults. Dr. Swett also remarks that he has seen the lungs of a new-born infant completely studded with tubercles; but this seldom occurs, and can only happen when the mother is laboring under tubercular disease at the time of giving it birth.

In by far the largest proportion of cases, a tuberculous habit is acquired after birth, and is the result almost universally of bad air, improper clothing, and innutritious diet. M. Guersent, one of the physicians attached to the *Hôpital des Enfants Malades*, in Paris, where no patient is admitted below the first, or above the sixteenth year, is of the opinion that tubercles existed in two thirds, or even five sixths, of the bodies he examined. The researches of M. Lombard, and more recently those of M. Papavoine, of the same institution, have fully established the above opinion. Dr. Alison, of Edinburgh, estimates them much higher.

How are we to account for this terrible mortality, which

annually sweeps away so many of the children of our country? The answer is, they are sacrificed upon the unholy altar of fashion.

Who, that has witnessed, in our cities, the painful sight of a child three or four years old, on a cold winter's day, with bare neck, arms, and legs, thin slippers, all exposed to the piercing blast, will longer wonder why consumption is so common and universally fatal in early life. How long will thoughtless mothers disregard the laws of health, and sacrifice the lives of their precious offspring for the sake of being considered "fashionable"?

We trust that enough has already been said of the errors of fashionable life, to call the attention of parents and guardians to the dangers which surround our children.

Who, that has a heart to feel, or judgment to weigh, the consequences of early neglect in the physical training of the young, if perchance they should survive the period of adolescence, can suppress the involuntary sigh that escapes on beholding a puny, sickly, attenuated offspring, too feeble to resist the slightest vicissitudes of atmospheric change, struggling on through life's eventful period, under the miserable consciousness of being machines out of order, incapable of adjustment or repair?

## CHAPTER XI.

TREATMENT OF PULMONARY CONSUMPTION AND THE  
AIR PASSAGES.

IN looking over the pages of medicine, from the time it was first taught as a science to the present day, we find that the various modes of practice resorted to by the profession, in the treatment of consumption and its kindred diseases, have resulted in little else than universal failure. The public mind has at length become so petrified by frequent failure and disappointment, — they have so often seen their fondest hopes and expectations blighted, — that they are led to look with suspicion and distrust upon the announcement of any new theory or system, however strong its claims may be upon their reason and intelligence, or however well supported by observation and experience. It is assuredly a melancholy reflection, from which no one can turn but with a sickening heart, that a class of diseases, which annually furnishes more victims for the grave than cholera, yellow fever, and all other causes combined, and from which no country, age, or sex enjoys any exemption, should be so imperfectly understood, and receive so little attention from the great mass of the medical profession.

In regard to the different modes of treatment employed, the utmost variety of opinions have been entertained. While some have regarded consumption as a disease of debility, others have regarded it of inflammatory origin; and thus we see that the treatment of the one has been perfectly at variance with the other. It is certainly a subject which admits of no dispute, that by *whatever* theory or principle they have been guided, in the administration of their remedies, little has been done to advance the reputation of the profession, or to lessen the increasing amount of mortality in pulmonary diseases. Indeed, the saying has long since passed into a proverb that consumption is certain death; hence the reproachful sarcasm of Samuel Johnson, that physic is but a meditation upon death. The view of the incurability of consumption, I regret to say, has been most amply sustained; and if we had no other means by which to combat this disease except that of administering drugs by the stomach, our hopes of the future must be gloomy indeed.

But, from extensive observation and experience, I feel amply justified in the remark, that consumption is no longer to be considered beyond the reach of medical art, as the *opprobrium artis medicinae*. Science has at length fairly triumphed over this most formidable enemy of the human race.

We are amply prepared to show, not by theoretical speculations only, but by numerous well-attested facts, furnished by our own experience, as well as that of the

most eminent and highly talented practitioners of medicine in our own and in other countries, that pulmonary consumption in its first and second stages is positively curable; and even in the more advanced stages of the disease, the power of inhalation in arresting and staying its progress is often truly surprising.

While we fearlessly advocate the curability of consumption by inhalation, we would not convey the idea that all cases, whatever the condition or stage of the disease, will invariably recover. We are too well aware of the formidable nature and character of this disease to advance such a statement. Moreover, it would be contrary to the results of our experience, and inimical to the cause of truth.

It can hardly be necessary to give in detail the various remedies which have from time to time been introduced, with a view to arrest the progress of this fearful malady. Antimony, iodine, digitalis, and a host of other articles we might mention, have all had their day of imaginary success, and been forgotten. Last of all, cod-liver oil, which, but a few years since, was so universally extolled by the profession, has shared a similar fate. The only virtues the *cod-liver philosophers* can claim for the use of this remedy, is that of respiratory food; instead of supplying materials and keeping in repair, it only serves to warm "the house we live in." We admit that it contains a small proportion of iodine and bromine, but not in sufficient quantity to claim our attention or justify its use. We will venture the assertion, that good butter and beef-

steaks will accomplish as much, and in a vastly more agreeable way. We hear it often remarked, even by physicians themselves, that it will at least afford good nourishment, if nothing more. So far from this being the fact, it does not contain the elements of nutrition; but, by uniting with oxygen, produces heat and vital force.

As it regards the practice ordinarily adopted by the profession, nothing can be said in its favor. Universal failure and death has been written upon every page of its past history. That the remedies administered have failed in arresting the disease, and by their action upon the delicate coats of the stomach, have impaired the digestive organs, and occasioned a degree of prostration and debility, which in too many instances, alas! have caused a more speedy passage to the tomb, no one will attempt to deny. Nor could the results have been otherwise, since the remedies, by being administered into the stomach, have spent their principal force and strength upon that organ; while the lungs, the seat of the disease, have received no medication.

The great desideratum in medical practice has ever been, to apply our remedies as nearly to the seat of the disease as is possible. And in no instance can this principle be of greater importance than in the treatment of diseases relating to the throat and lungs. We find that medicines, when volatilized, or reduced into a state of vapor, and inhaled or breathed, act more powerfully, and produce a more speedy and happy effect upon the lungs, than when administered in any other way. The reason

of this is perfectly plain, and must be obvious to the most common understanding, since the lungs possess an immense absorbing surface — greater by far than the entire surface of the human body; and this vast area, being constantly exposed to the action of the atmospheric air, brings the whole volume of blood, circulating in the human body, directly under its purifying influences.

If, then, the atmosphere becomes loaded, as is the case in low, marshy districts, with miasmata, we can readily account for its effects in producing ague and fever, and other fevers incident to such localities.

We also witness the same results in persons who have been exposed to the baneful effluvia escaping from individuals suffering from small pox, and other contagious diseases; the poisonous effluvia being rapidly absorbed from the air cells of the lungs into the blood, and by it carried through the entire system, to every part of the body.

We also notice the no less wonderful effects upon the system of breathing a hundredth part of a grain of *arseniuretted hydrogen*, which has been known to prove speedily fatal, the results being that of arsenical poisoning. One hundred times that quantity, when taken into the stomach, it is well known, would not produce the same result.

The facts deduced from these observations are, that medicines in a gaseous state act with more promptness and energy than solids or fluids. In the former instance, by being inhaled, they are brought in immediate and

direct contact with the whole volume of the blood, at once mixing with it, and circulating to every part of the system, imparting all their healing and purifying qualities ; while in the latter, they must first be introduced into the stomach, and be submitted to the solvent powers of the gastric juice, before they can be made available.

“ It is most astonishing,” says Professor Carpenter, that distinguished physiologist, “ to witness the extraordinary increase in potency which many substances exhibit, when brought in relation with the blood in a gaseous form.” The foregoing facts, so well authenticated, must forever silence the objections so often raised by medical men, that inhalation is only a local remedy.

We find that there is no change or action necessary to be produced upon the lungs, or upon the blood itself, that cannot be brought about more speedily, and with tenfold greater certainty, by inhalation, than by any other possible mode of administration.

By inhalation, as many have supposed, is not meant a particular remedy, prescription, or formula ; it is a system of practice, composed of many *different remedies*. And the source from which we select these remedies is no less a field than the whole materia medica. To make a prescription, then, they must be combined in such a manner as to suit the peculiar indications in each individual case.

For example : we find, on administering an *emetic*, *purgative*, or *opiate*, by the stomach, that each produces entirely a different result ; though all are taken in the

same manner, and pass into the same organ. The same holds true of inhalation. We inhale one set of remedies to soothe irritation and quiet the lungs; another, to cause expectoration; a third, to rouse and stimulate the enfeebled condition of the parts; a fourth, to promote the absorption and removal of tubercular deposits; a fifth, to astringe or shrink up the parts, as is required in ulceration; and a sixth, to obviate the condition of spasms, as is the case in *spasmodic asthma*. You will perceive, then, that it is not alone sufficient to inhale, but it is all-important that you should inhale the proper remedies.

Observation and experience have taught us that medicines act with promptness and power in proportion to the minuteness of their divisibility.

A solid may lie in the stomach for hours before any visible effects are manifested upon the system; which accounts for the fact that deadly poisons may be removed from the stomach, by means of a stomach pump, long after they have been swallowed, without the least injury having resulted. Not so with medicated vapors; their action upon the system is instantaneous. As they are received into the lungs, so they pass through the entire system, and in a few minutes may be detected in the various secretions of the body. And thus we frequently hear patients speak of the soothing and delightful effects they almost immediately experience on the simple use of a mild inhalation.

In this manner we convey the remedies directly to the seat of the disease, and produce the same happy effects

upon the diseased surfaces in the lungs that are attained by washes and ointments upon external surfaces of the body ; moreover the vapor dissolves the viscid and tenacious mucus, which in many instances completely block up the air tubes of the diseased part, and make it free and easy of expectoration.

Now, as the obstructions are removed, the lungs once more regain their former capacity, the air is again permitted to enter the collapsed portion of the lungs, and the greatest amount of comfort and improvement is the immediate result.

But the beneficial effect of inhaled vapors does not stop here ; the increased amount of air which is admitted into the lungs acts upon the blood, increasing its purity, causing the ruddy glow of health to return to the cheek, and the eye to sparkle with lustre and intelligence.

But inhalation, to be successful, must be commenced early, and persevered in as long as the least vestige of the disease remains. Many think, because the cure of consumption is possible, it ought to take place with incredible rapidity — that they should begin to feel that they are getting well from the very day of commencing treatment.

But patients should bear in mind that chronic diseases of long standing cannot be broken up in this summary manner.

Nor can this be remarkable, when we reflect upon the important and difficult nature of the work to be accomplished — the removal of tubercular matter from the lungs by absorption, the healing of an excavation or abscess, and

lastly, a change to be effected in the system — in the whole mass of blood.

Shakspeare understood this when he penned the following stanzas: —

“How poor are they that have not patience!  
What wound did ever heal but by degrees?  
Thou knowest we work by means, and not by magic,  
And means depend upon dilatory time.”

Too much cannot be said upon the importance of early and persevering treatment. A few weeks, yea, months, are not always sufficient for the removal of a disease which has been long years in becoming established. Nevertheless, a few days are not uncommonly sufficient to work the most happy and gratifying results; indeed, the comfort and relief which patients almost immediately experience upon the use of a mild expectorant inhalation is truly surprising. Who, that has witnessed the change in the expression of the eye, the improvement of the appetite, the diminished cough, the gentle and refreshing sleep, which have so frequently been the result of this treatment, can longer doubt its superior efficacy? And I may say that I have the additional satisfaction in being able to add, that I have so many times seen all these happy and cheering results follow the continued employment of these measures, even when suppuration and other symptoms, equally characteristic of pulmonary excavation, were present, that I do not regard any case, however desperate, as beyond the reach of relief.

We have already spoken of the poisonous and baneful effects experienced by inhaling noxious vapors, and other deleterious gases; and we have the most unmistakable evidence, that the lungs have been the channel of communication by which these poisons have been conveyed into the system. If, then, as we have seen, by accidentally breathing *poisonous exhalations*, or vapors, such speedy and powerful morbid effects can be produced upon the system, causing disease similar to that from which the poison emanates, is it not equally just and reasonable to conclude, that medicines armed with the power of cure, when reduced into a state of vapor, and inhaled or breathed into the lungs, should produce their desired effect upon the system with the same determinate energy and power?

These principles, based as they are upon sound philosophy, reason, and common sense, must commend themselves to every intelligent mind.

We have dwelt upon this point longer than perhaps may seem necessary; but it has been our aim, from the first, so to simplify and elucidate the principles of inhalation, as to bring them within the comprehension of the most common intellect.

The remedies administered by inhalation are numerous; and for the sake of convenience I have arranged them in the following order:—

1. Alterative vapor.
2. Expectorant “
3. Astringent “

4. Antispasmodic vapor.

5. Anodyne

*Alterative inhalations* produce not only a local action upon the lungs, but also act constitutionally, by passing directly into the circulation, improving not only the faulty condition of the blood, but also the character of the secretions.

*Expectorant inhalations*, as the name indicates, are employed to promote expectoration, and they take the place of *expectorant mixtures*.

*Astringent inhalations* are employed in all cases where the expectoration is profuse and the mucous membrane very much relaxed ; as in *humid bronchitis*, and in *chronic ulceration of the lungs*.

*Antispasmodic inhalations* are chiefly employed in chronic nervous coughs, spasmodic asthma, &c.

*Anodyne inhalations*, as we should infer from the name, are employed in certain irritable conditions, and serve to soothe and quiet the lungs when the cough is very distressing. They are usually combined with those of a more stimulating character, in order to avoid any irritation which might be produced by their stimulating effects, and are not liable to the objections of anodynes administered by the stomach. These different classes of remedies constitute our treatment by inhalation, and by them we are enabled to act upon the lungs in the most gentle and delicate manner. We can stimulate or calm the nervous system, and induce the sweetest repose, without the use of any other means. Why, then,

continue to fill the stomach with nauseous and filthy drugs, regardless of the evil results they are well known to produce.

But, says one, shall we reject the use of medicines by the stomach altogether? I answer, No. It would be contrary to the present state of medical science and experience to do so. It is as true as ever it was that quinine will cure *ague and fever*, opium will relieve pain, colchicum and hydriodate of potash will often cure rheumatism; and numerous other agents, we might mention, will effect positive, ay, beneficial results upon the human body. There can be no doubt, however, as we advance in medical science, and become better acquainted with the laws of nature, that we shall be able to dispense with many, very many, of the remedies now in use. We again assert that medicines taken into the stomach cannot heal cavities or ulcers in the lungs. To use the language of another, "As well might a mason call for medicines to repair a breach in a chimney or in a stone wall, as a physician to put drugs into the stomach with a view to heal a disease in the lungs. *Pure air, good nourishing food, and moderate exercise*, sometimes cure, but medicines taken into the stomach never."

Various are the means that have been employed to convey remedies directly into the lungs. The ancients had recourse to fumigations of various substances. But this method was liable to the objection of causing an irritation, by the minute particles of burning matter, of which smoke is composed, finding their way into the air

cells of the lungs. Again, the fumigation of tar, as recommended by Sir Alexander Crichton, by the application of heat, also extricates the products of imperfect combustion. Even in this imperfect manner great benefits have often been received, while in other instances it has failed to accomplish any good, for the reason that the remedy was not adapted to the peculiar condition of the lungs; and thus too often it has served to aggravate the very symptoms it was intended to relieve.

His mode of using the tar fumigation was, to boil common tar, adding to each pound from one to two ounces of carbonate of potash, to destroy the empyreumatic acid. A small quantity of this, being put over a spirit lamp, and thus disengaging the volatile part of the tar, the air of the room soon becomes impregnated. Whenever inflammation of the mucous membrane exists, the remedy is contra-indicated, and must greatly aggravate the symptoms of the disease. The repeated failure in this practice has been owing to a want of proper discrimination in the disease, and to the mode of applying the remedies, rather than to any incorrectness of the theory.

In administering remedies by inhalation, I employ several different modes.

1. By diffusing the vapor through the apartment in which the patient sleeps. When these means are had recourse to, it is done, generally speaking, to keep up a more constant action upon the lungs, and is employed in connection with other modes of administration.

2. By means of various inhaling instruments, two kinds of which I employ in my practice, represented in the following cuts.



Fig. 1.

Figure No. 1 represents an inhaler for the use of warm vapor; which is made of glass, and usually holds about a pint of fluid. The entrance at the top is closed by a cork, through which holes are pierced to admit two glass tubes, one of which passes through the cork, down to within a quarter or half an inch of the bottom of the inhaler. The other is only of sufficient length to pass through the cork, to which are attached an elastic tube and an ivory or glass mouthpiece.

*Directions for Use.* — Pour into the inhaler a sufficient quantity of water to make it about half full. The temperature of the fluid should always be regulated with great care and judgment, having in view the nature and stage of the disease, and should not be lower than eighty degrees, nor higher than one hundred and fifty degrees. We now add to the water in the inhaler such remedies as

are suited to the condition of the patient, varying in amount according to the peculiar circumstances of the case. The patient places the mouthpiece in the mouth, and on drawing a slow, full breath, a vacuum is created above the fluid, to fill which a stream of fresh air rushes down through the glass tube, mixing with the medicated liquid, and throwing it into intense agitation, resembling boiling water. Now, this air, from mingling with the medicated fluid, becomes thoroughly impregnated with its properties, and is carried directly into the lungs, producing any action or change to be desired, with a degree of certainty and power unknown in any other mode of administration.

The process of inhaling is as simple as the act of breathing itself, and may be attended to by the most delicate and feeble, without exertion or fatigue. Any changes that may be required in the treatment are effected by simply varying the medicines introduced into the inhaler. For example, they may be rendered *stimulant*, *anodyne*, *alterative*, or *astringent*, at pleasure.

Figure 2. We have the inhaler for the use of "cold vapor," or remedies rendered volatile without the application of heat. This apparatus is much less complicated, more simple and convenient than the former, and when it will answer the indications, is much to be preferred. But there are circumstances and certain conditions of disease, requiring a different mode of application, to which I shall allude in a subsequent chapter.

This instrument consists of a small glass globe, (*a*), at

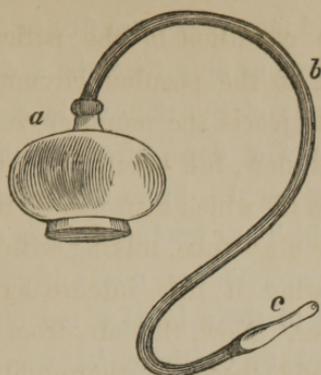


Fig. 2.

the upper end of which there is a stem, through which there is an opening communicating with the inner part of the globe; to this stem there is attached an elastic tube, (*b*,) and a glass or ivory mouthpiece, (*c*.) At the lower end there is an opening much larger than that of the upper end, into which a fine sponge is introduced, saturated with about two tea spoonfuls of the vapor to be used. Now, as the patient inhales, the air, in passing through the sponge, becomes charged or loaded with the medicated vapor, and thus passes directly into the lungs, bringing the healing and soothing properties of the remedies employed, not only in contact with the surfaces of the air tubes, but the extreme minute sacs of the air cells, so that the cavities of abscesses and ulcers can in a moment be reached, and the remedies be applied to the diseased surfaces. These remedies are at all times safe, pleasant, and agreeable, equally well adapted to the youngest child and adult.

The time occupied in inhaling must always depend, in a great degree, upon the age, strength, and condition

of the patient, and may vary from five to fifteen minutes ; to be repeated three or four times in a day. It may be proper, under some circumstances, to entirely omit the inhalations for a few days, after which they may be again resumed as usual. From the soothing and agreeable sensations which are produced upon the painful and irritable chest, patients are not unfrequently tempted to have recourse to their inhaler too often, and sometimes are inclined to continue its use even when no longer necessary.

For the preparation of *cold medicated vapors* we employ pure alcohol (ninety-five per cent.) as a menstruum.

This serves not only to volatilize and prepare the various remedies for use, but it has been found that alcohol, when inhaled, acts as a solvent upon tubercular deposits, and also furnishes carbon, the most important element required in the consumptive habit.

Dr. James Stewart, of New York, in his admirable treatise on diseases of the lungs, says, "I have used the vapor of alcohol with most decidedly beneficial effects in confirmed phthisis. Indeed, it has been followed by more satisfactory results than any other remedy I have employed in the treatment of this formidable disease.

"The patient," he says, "should be made to breathe alcoholic vapor from an inhaler, or the atmosphere that immediately surrounds him may be impregnated with the vapor, by swathing the upper part of the chest with a soft towel, kept moist by any alcoholic fluid found to be most agreeable ; the natural warmth of the body being sufficient to evaporate the necessary quantity of alcohol.

“The latter is the mode,” he says, “I have adopted, when the patient is very much debilitated, and requires to be surrounded with vapor. A most hopeless case of consumption,” he continues to remark, “occurred a few years since, in a man who had previously lost two brothers with the same disease, and was treated, as the last resort, by alcoholic vapor; perfect recovery followed, and he is now in the enjoyment of vigorous health.”

The celebrated Dr. Marshall Hall, one of the greatest pathologists of modern times, was so enthusiastic in praise of this mode of practice, that he declares that he has seen greater benefits from the persevering use of alcoholic vapors in the early stages of phthisis than from all other remedies combined. Dr. Swett also alludes to the singular fact that confirmed drunkards seldom die with consumption; and of the many persons of this character whom he had occasion to examine after death, in the Dead House attached to the New York Hospital, he has rarely found the lungs of any of them in a tuberculous condition. These are facts which are certainly worthy of consideration, and upon which medical men should ponder well.

If, then, to the inhalation of simple alcoholic vapor we are indebted for such valuable and beneficial results, what may we not expect from the inhalation of an alcoholic vapor into which enters the active and curative properties of many well-known remedies belonging to the *materia medica*?

My own experience, I am happy to add, fully justifies

my recommendation of this treatment, having successfully tested it in many hundreds of cases, in which, according to all my former experience in the old modes of practice, I must have failed.

Let it not be inferred that we encourage the idea that this system of practice can be taken up with comparatively little study, and at once successfully practised by the mere novice in the profession. No system is more complicated, and requires a more thorough acquaintance with its details, a nicer discrimination, a more mature judgment, than does the treatment by inhalation. But a careful study, and a thorough investigation of its principles, will amply reward the intelligent and judicious practitioner for all the effort and pains it may cost him to unravel its mysteries, and master the minutiae of its application.

*Change of Climate.*—The utmost variety of opinions has been expressed as to the probable, or rather possible, beneficial effect of a change of climate upon the consumptive invalid. The common practice of sending the consumptive away to a foreign clime, without regard to his circumstances or the stage of his disease, where he is compelled to sacrifice all the comforts and conveniences of home, with no kind friend to minister to his necessities, nor cheer the lonely hours of his sleepless nights, is, to say the least, injudicious, and cannot be too severely reprobated. Says an eminent English writer on this subject, “When tuberculous matter appears in the expectoration, and when the stethoscope indicates that a

considerable portion of the lung is unfitted for respiration, a southern climate is more likely to accelerate than retard the fatal event, and diminishes the chances that remain of a final recovery."

Those who have not witnessed lingering illnesses and death-bed scenes in distant climes can form no just conception of the tide of mournful emotions which daily rush over the mind of the dying stranger on a foreign shore. Death is deprived of more than half of his terrors by the sympathies of friends, and the consciousness that our ashes shall be deposited in the land that gave us birth, near those whom in life we cherished, loved, and revered.

This may be a prejudice — perhaps a weakness ; yet it is natural, it is instructive ; and the instincts of nature can seldom be repulsed, even by the most philosophic minds. "*Expellas naturam furca tamen usque recurrit.*" But the sigh of sorrow, perhaps of regret, is not always buried in the grave of the sufferer on these occasions. The *companion*, who *counts* the tedious hours of protracted disease, and closes the eyes of the departed friend, in a foreign land, undergoes a terrible ordeal — always harrowing to the feelings, and not seldom hazardous to life ; while the surviving relatives at home are subject to the painful anxiety of suspense — sometimes to the poignant sting of remorse, for having suffered the victim of an irremediable malady to expire on a foreign shore. As evidence of the strange infatuation which frequently seizes upon the mind of the consumptive, with regard to

his hopes of relief, I will relate the case of a highly intelligent gentleman, who came under my care some time during the autumn of 1855. His lungs, on examination, proved to be in a tuberculous condition, and already far advanced in the suppurative stage. After embracing my plan of treatment, his symptoms were very much improved, and he gained both flesh and strength. Nevertheless, the idea kept constantly preying upon his mind, that if he could only enjoy the soft and balmy influences of a southern clime, and breathe its warm atmosphere, richly laden with balsamic emanations from the fir tree and the pine, a rapid recovery must be the almost inevitable result. Elated with this happy prospect, he journeyed on to this "Eldorado of health." But, alas! too soon his fondest hopes were doomed to meet with disappointment, and his bright visions, like the morning cloud and the early dew, soon passed away; and instead of reanimated vigor and returning health, the privations of a long and tedious journey, the respiration of a dusty atmosphere, together with the difficulty of obtaining suitable diet and regular hours of rest, all conspired to accelerate his symptoms; and, in a few short weeks, the poor enfeebled victim, with all his fondly-cherished hopes, sunk down and died. This is not the only instance; but thousands in a similar manner annually tear themselves away from friends and home, and seek a foreign climate, in search of health and strength, with no better success.

What, then, are the facts in regard to this matter?

The combined wisdom and skill of the best medical writers on this subject confirm the truth of the statement, that the air of the most favored resorts possesses no virtue to heal the lungs when diseased, nor yet to protect them from becoming diseased. That there is nothing curative in the atmosphere of those places to which consumptive invalids resort for health is further proved by the well-known fact, that this disease is very common among the natives of all the southern coast. At St. Augustine, Jacksonville, Tampa Bay, *one fifth of the adult population die of consumption*; and the same is true of Havana and all the West India Islands, and also of the most famous European resorts — Marseilles, Nice, Rome, Naples, and Madeira.

However much may be said of the impracticability of a change of climate, as affecting those who are already far advanced in consumption, there will always be found some, who, when health is assailed and life endangered, are willing to make any sacrifice, or try any expedient, however hazardous, with a view to ward off the terrible inflictions of this most fatal and much dreaded disease.

Heaven forbid, even amid all the improbabilities and dangers with which such a step is fraught, that I should throw the weight of a feather in the scale against the preservation, or even the prolongation, of human existence.

It will be proper for us to consider what are the circumstances and conditions most favorable to the consumptive invalid, when he is resolved upon taking

such a step. In the early stage, when the disease is limited to a small portion of one lung, and the progress of the disease has been slow, when no hereditary taint exists, and in addition to this, the patient possesses considerable energy and vigor of constitution, a residence in a tropical climate may materially improve the chances of life, or at least place the patient under a more favorable condition for treatment. If, on the other hand, the disease, *ab initio*, has advanced rapidly, and both lungs are involved, or when the tubercular deposits are very extensive in one lung, and the process of softening, or suppuration, has already commenced, when cavities exist, and the usual train of secondary complications have ensued, a change of climate can promise no possible amelioration, but in all probability will accelerate the fearful symptoms, and hasten on the fatal issue.

Patients going south should leave the north as soon as the latter part of October, or early in November, and pass the winter months in the interior of Florida, either at Jacksonville, or, perhaps, at Magnolia — a place located about midway between Jacksonville and St. Augustine, and about twenty miles from the seaboard. There is a sanitarium established at each of the above-mentioned places, for the benefit of consumptive invalids who resort thither.

The climate of East Florida is thought to be better adapted for a winter residence for invalids, with delicate lungs, than any other part of the United States.

The average temperature is about sixty degrees Fahren-

heit. There is usually very little frost in this locality, and the rain that falls is rapidly absorbed by its dry and sandy soil. As soon as the heat becomes oppressive, which is usually the case in the month of March, the patient should begin to move northward, keeping away from the sea coast.

He may do well to stop a month or two in the interior of South Carolina; then, slowly resuming his journey, reaching Richmond, Virginia, about the first of May. In no case should he return to the north until about the 20th of June. Too frequently the good effect of a whole winter's residence in the south is more than counterbalanced by too early a return. A premature exposure to the chilling blasts of the easterly winds of a New England April and May cannot fail to rekindle the elements of disease, which had become quiescent under the more genial influences of a southern climate; and the result is, that the malady runs a more rapid course to a fatal termination.

The anxiety that patients usually have to return, after a long absence from friends and home, I need not say, generally presents a strong temptation to their imprudence in this respect.

The physician who recommends indiscriminately a change of climate, without a proper regard to the condition and symptoms of his patient, to say the least, incurs a fearful responsibility.

In connection with this subject, we may mention, as a remedial means recommended to the consumptive invalid,

a temporary residence in the pine forests. Whatever benefits may have been derived from such a residence is, undoubtedly, attributable to the balsamic emanations with which the atmosphere abounds, and which the patient inhales. This, it is well known, can only be beneficial to a very limited extent; in some forms of chronic bronchitis it may prove salutary, but in the great majority of cases, it cannot afford the slightest palliation of symptoms; their stimulating effect upon the air passages would rather prove injurious. *Sugar house vapor* has also had its advocates, and been very much extolled as a remedy. That the most happy and beneficial results have been realized from constantly inhaling the "warm steam" arising in sugar manufactories, I cannot entertain a shadow of doubt; and this is owing, not to any curative properties inherent in this peculiar vapor or steam, but to the emollient and soothing power it exerts upon the inflamed mucous membrane of the air channels; subduing inflammation, and allaying irritation, in precisely the same manner as warm fomentations and poultices, when applied to inflammations on the external surface of the body.

And here again the same remark that we adverted to, in speaking of a sojourn in a pine forest, holds true. It can only be applicable in certain stages and conditions of disease. In speaking of the benefits of "warm vapors," Dr. Mudge, a celebrated English physician, remarks that, "the irritation and inflammation produced by taking a *severe cold* can be more thoroughly and quickly removed

by simply inhaling the steam of warm water, than by any other remedy, and especially if used the same day the cold is contracted. . . . I have," adds this eminent physician, "all my life, from tender lungs, had a propensity, on taking cold, to a severe cough, (which ordinarily used to harass me for three weeks, or a month, and sometimes much longer.) I was induced to make myself the first subject of experiment. The night the remedy was first used was passed without the least tendency to cough; and the next morning, by one or two gentle efforts, a small quantity of concocted matter was discharged, without the least disposition to cough afterwards. Notwithstanding which I could not be persuaded, the whole succeeding day, that the cough was radically cured, and accordingly was in expectation of its return; which, however, did not happen."

Dr. McIntosh, who has deservedly occupied a high position in the ranks of his profession, remarks, in his "Practice of Physic," that inhaling the *simple vapor of warm water* is highly serviceable in cases of bronchitis and croup, and affords more ease than any gargle in the sore throat, which accompanies scarlatina.

In ordinary sore throat, inflammation of the tonsils, and other affections of the air passages, dependent upon a severe cold, I have prescribed inhalations of the vapor of hot water, combined with mucilaginous infusions, and some anodyne, with the most happy effect, and with better results than by the use of any other means. And I do not entertain a doubt, but that, if in most cases

these simple measures were early resorted to, many of the severest forms of bronchitis, and other pulmonary diseases, which now prove so fatal in our climate, might be prevented.

Dr. Corrigan, one of our transatlantic brethren, a physician of much experience and ability, observes, that he "feels justified in coming to the conclusion that 'medicated inhalations' exert a most powerful influence over diseased action; and that, as it is only in this form we can administer, to act locally upon diseased tissues in the lungs, the exhibition of remedies in this manner merits the closest attention and most diligent inquiry. . . . Of the powerful influences," says this author, "which various vapors, and even changes in the air itself, as to heat, moisture, constitution of the atmosphere, &c., exercise as local agents on the lungs and air passages, there cannot be a doubt. Every day's observation shows it, every one in his own person feels it; and allowing most fully for the exaggerated encomiums of some advocates of inhalation, enough remains in the attestations of many of the greatest authorities in the profession, to forbid us to abandon this plan of treatment." In this connection, I have only room to call attention to a few of the names of those who have tested the efficacy of inhalation in diseases of the respiratory organs; such as Bennett, Scudamore, Elliotson, Gannel, Murray, Maddock, and Dr. Cottreau, of Paris; and of our own country, we refer to the names of Drs. Eberle, Rush, Morton, and Coxe.

Dr. Coxe, in a well-written work on "Diseases of the Respiratory Organs," remarks, "I have found medicated inhalation peculiarly applicable in many complaints of the larynx, trachea, bronchi, and lungs; and the value and efficacy really belonging to this remedial measure may, to a certain extent, be estimated from the fact, that in every case in which I have employed it, not only was the disease of many years' duration, but the long-continued trial of the various remedies generally recommended, and upon whose curative powers the most experienced of our profession almost solely depend, had proved entirely ineffectual. Dr. Coxe further remarks, "The first case in which I used inhalations was upon myself; and it may not be amiss to state, that for years I had given a fair and ample trial to all the remedies which were suggested by many of the most experienced American and French physicians, without being able to effect more than an alleviation of some of the most distressing symptoms attendant upon a chronic disease of the larynx. Even this alleviation could only be finally accomplished by abandoning the practice of my profession, and calling into requisition the advantages of a sea voyage, and a long residence in warm climates, in conjunction with such other means as were considered appropriate."

Dr. Coxe adds, "By regularly and faithfully pursuing a course of treatment by inhalation, that he succeeded in completely curing himself; and that he is, at the period of his writing, in the enjoyment of excellent health, and

enabled to attend to the duties of an active life." Dr. Coxe also refers to many other cases of asthma, bronchitis, and consumption which he cured by inhalation.

Among the latter is a physician of extensive experience, now practising in the city of New York.

Dr. Coxe continues by saying, "The fact of the curative powers of medicated inhalations I now consider well established; and those who, laboring under any diseases of the respiratory organs, are generally made to depend upon the uncertain effects of sea voyages and change of climate, however inconvenient such measures may be, for a probable restoration to health, after a long-continued, though most frequently inefficacious treatment, have certainly a right to require from their medical advisers that the efficacy of medicated inhalations should be faithfully and fairly tried in their case."

We next quote, from Dr. Eberle's work on "Therapeutics," the following language: "The inhalations of aeriform fluids may be employed to great advantage in the treatment of pulmonary diseases; for by this method we are enabled to make direct impressions upon the respiratory organs—a circumstance which experience has shown to be of the highest importance in many diseases to which these organs are liable."

Dr. Rush, whose name is indelibly engraven upon the page of medical history, remarks, in his work on "Diseases of the Chest," in reference to inhalation, that, "too much cannot be said in favor of this simple system of conveying remedies. I have frequently seen patients

snatched from the jaws of death by it. Whether all the beneficial effects that may be justly considered possible to result from the use of the inhaler, either as a preventive or curative agent, will be realized, must be determined by future observation ; but it is to be hoped that the general want of success which attends the present mode of treating pulmonic diseases will induce medical men to give a fair and full trial to a remedial measure which appears so well calculated to effect a great amount of good."

Dr. Cottereau, an eminent and accomplished European physician, adduces many cases of the worst and most inveterate form of consumption, which were cured by the use of inhalation, and that, "when the hereditary disposition, the conformation, the nature and succession of the symptoms, all concurred to prove the existence of the disease." He relates one instance of recovery from extensive pulmonary disease, where the patient died many years afterwards from a totally different complaint, (inflammation of the bowels;) and, upon making a *post mortem* examination, with Drs. Parmentier and Caignon, the lung which had been diseased was examined, and found to be perfectly healed, and to be composed of a hard, compact, fibrous tissue, of a slate color, marbled with white and gray, impermeable to air, and not traversed by any subdivision of bronchi. The rest of the lung was quite free from disease. Here we have the most positive and indisputable evidence of the curability of consumption by inhalation, even in advanced stages of

the disease; the progress of the disease having been carefully watched from day to day, and every perceptible symptom noted with the most scrupulous care; and to remove all doubt, indications of organic lesion were revealed on dissection.

“We thus see,” Dr. Cottureau adds, “that consumption has existed, and after having conducted the patient to the verge of the tomb, has been combated with success.”

The testimony above referred to is not based upon a mere hypothesis, but has been the result of years of careful observation and experience, and is supported by as clear and incontrovertible evidence as any fact in medicine is capable of being demonstrated. Sir Charles Scudamore, M. D., a name well known to the profession, also remarks, “Experience has amply justified my recommendation of this treatment, and I have had the happiness of succeeding in very numerous cases, in which, according to all my former experience with the old methods of practice, I must have failed.” With an experience of fourteen years in this mode of practice, he tells us, in speaking of certain inhalants, “although medicines of great delicacy and power, my convictions of their most perfect safety have not been shaken by a single untoward instance.”

Sir James Murray, of Dublin, says of inhalation, “I can with safety assert, that it will sometimes heal if early applied; and it will give rest, repose, and relief, in cases where it is impossible to cure.”

I also quote from a treatise written as late as 1853, by Dr. James Turnbull, physician to the Liverpool Infirmary, in the following language: "When volatile remedies are inhaled, they must produce, beside the general effect resulting from absorption, a local action upon the mucous membrane and its secretions; hence we should expect them to exert an influence in bronchitis. This would also lead us to expect that inhalation would prove beneficial in spasmodic asthma—a deduction which is fully confirmed by experience." Again he says, "There are a great variety of volatile substances, capable of being used for inhalation, that have never been tried at all." He accounts for the limited knowledge which is possessed on the subject of inhaled remedies, on the principle "that many who used inhalations prescribed them without any well-defined object beyond their soothing effects."

Such, then, are the recorded observation and experience of some of the brightest lights in the profession.

With such an array of evidence before us, who shall say that inhalation, founded as it is upon the eternal rock of truth, is not destined to work out an entire revolution in the treatment of a class of diseases, which, more than any other, have carried death alike to the princely palace and humble cottage?

That drugs administered by the stomach exert no chemical or dissolving action whatever upon tubercles in the lungs, and consequently no curative power over tubercular consumption, is evident from the universal fatality which attends this mode of treatment. Every day's

experience confirms us in the belief that while they exert no salutary action upon the lungs, they only serve to impair and weaken the functions of the digestive organs, and exhaust the vital powers of the system, upon which our only hope of returning health depends. Let it not be supposed for a moment, that we wish to discard altogether the use of remedies administered by the stomach; we have too frequently seen the beneficial results of medicines taken by the stomach, with a view to elevate and improve the general tone of the system, to undervalue their importance. Too much cannot be said against the injurious tendencies of our age, as affecting this gigantic evil.

Persons are induced to swallow bottle after bottle of filthy trash, without once inquiring into the character of its author, in the delusive hope that somehow they shall regain their health. Meanwhile the disease makes more fearful strides towards a fatal termination.

The treatment by inhalation is at all times safe, and unattended with the least unpleasantness or inconvenience; and while we convey our remedies into the lungs, in the most direct manner, we avoid all the unnecessary and disastrous consequences so frequently resulting from the unnecessary action of drugs upon the stomach. The whole tendency of this method of treatment, instead of weakening and debilitating, as under the ordinary modes, is to invigorate, give tone, and impart new life and energy to every part of the system. These results, it is well known, must first be accomplished

before any thing satisfactory can be attained in a tuberculous condition of the system.

But it is my solemn conviction, that thousands of precious lives are annually sacrificed by the almost universal resort to those disgusting *nostrums* and *panaceas* which are daily palmed off upon the public in the shape of *pills, powders, cough-syrups, and balsams*, for the cure of "colds and coughs."

Nothing can be more absurd, no folly can be more supremely ridiculous, than the idea of supposing that any of these highly-extolled nostrums can be adequate to the prevention and cure of a whole catalogue of diseases, however opposite or discordant in their nature. And if, perchance, a random shot has at any time effected its desired execution, yet who, in his right mind, can be found willing to trust his life to such fortuitous incidents?

For if, in one state of the disease the remedy is well adapted, in another it must of necessity prove highly injurious.

And, while tampering with these health-destroying and villanous compounds, under a firm conviction of their infallibility, the precious moment, the only favorable opportunity for effecting a cure, is too frequently lost. The most of these compounds contain that well-known drug opium, in some form, which only serves to disguise the symptoms; and thus the patient is flattered into the belief that he is growing better, when, alas! his symptoms point unequivocally to a speedy dissolution.

## CHAPTER XII.

## CASES DEMONSTRATING THE CURATIVE POWER OF MEDICATED INHALATIONS IN CONSUMPTION AND OTHER DISEASES OF THE RESPIRATORY ORGANS.

WE shall commence by introducing to the reader a communication from H. B., of Fall River, Massachusetts; a gentleman of intelligence, and in every way worthy of the highest confidence.

It is proper to state that Mr. B. continues in good health, and he is therefore a living monument of the superior efficacy and value of this mode of treatment.

CASE I. — *Inhalation in Consumption.*

To the Editors of the Olive Branch.—Dear Sirs: Permit me, through the columns of your valuable paper, to offer a few remarks illustrative of the beneficial and successful results of medicated inhalation in the treatment of consumption.

In the early part of the month of March last, I had a very severe and distressing cough, of several years' standing. I expectorated daily a large amount of greenish, yellow-colored matter, occasionally streaked with blood.

I had a severe pain and a sense of weight or oppression on my right lung, which was very much aggravated on lying down, so that I got but little rest at night. I suffered greatly from shortness of breath on walking fast, or on making the slightest exertion. My strength gradually failed, I became very feeble indeed, followed with emaciation and night sweats. I was also afflicted with a catarrhal affection, which had almost entirely destroyed the sensation of smell, my nostrils being so much obstructed as to breathe with difficulty through the nose.

Now, under these circumstances, having tried almost every thing that promised any relief, and receiving but little if any encouragement from my physician at home, I was induced, as a last and dernier resort, through the advice of a friend, to consult Dr. Dillenback, at No. 8 Cambridge Street, Boston; and after a careful and thorough examination of my lungs, the doctor pronounced them to be in a state of ulceration, the right lung having a considerable cavity. This opinion fully confirmed my own apprehension, for I could distinctly hear the rattling in the upper part of my lung at almost every breath.

This was my condition, as nearly as I can describe it, when I commenced the treatment, under Dr. Dillenback, of inhaling or breathing cold medicated vapor. The effect of this treatment from the first was truly surprising; the soothing and agreeable effects of the vapor gave me almost instant relief—my cough gradually subsiding, the expectoration becoming free and easy, while my breath-

ing improved, and the pain and oppression of the chest left me.

In four days from the commencement of this treatment, I was able to lie down and sleep comfortably all night. I commenced my treatment by inhaling about two tea spoonfuls of the vapor from a fine sponge placed in a small glass globe, to which are attached a tube and mouth-piece. I was directed to inhale four or five times during the day, and to continue from five to ten minutes each time. In addition to this, with a view to reach my catarrhal difficulty, the doctor showered my nasal passage with a small silver syringe, adapted to that purpose. By this means my catarrhal difficulty has been so much relieved that I can now smell and breathe through my nose; my cough has left me, and my health and strength have proportionally improved. And believing that I owe to inhalation, as employed by Dr. Dillenback, not only my present good health, but in all probability my life itself, I could no longer remain silent, nor refrain from bringing before the public a knowledge of these facts, in the hope that others similarly afflicted, by a timely resort to this treatment, may experience the same delightful and happy effects.

Very respectfully, your obedient servant,

H. B.

FALL RIVER, *Massachusetts*, October 9, 1855.

*Remarks.*—The gentleman above alluded to was by occupation a merchant, and about fifty years of age; his

confinement and close attention to business, together with the cares and anxieties incident to the same, very much served to aggravate his symptoms.

On making a careful examination of the chest by means of the stethoscope, I found well-marked symptoms of *pectorilox*y, *cavernous respiration*, and a *gurgling*, *mucous râle*, over the superior portion of the right lung, indicating the existence of a cavity and ulceration of the part. Though he was able, for the most of the time, to be about, his cough was extremely harassing, and giving him but little rest by night or day. His expectoration was profuse and of a puriform character. In this condition, I subjected him to the following course of treatment: directed him to lay aside all drugs, patent medicines, &c.; ordered entire abstinence from business, daily exercise in the open air, as much as his strength would allow, a generous and nourishing diet, and the free use of London porter, as a stimulant, to be drank daily. I also enjoined upon him the necessity of sponging the entire surface of his body with equal parts of alcohol and water, every morning, to be followed by rubbing briskly with a coarse linen or crash, until a fine glow shall have been produced upon the surface, and reaction fully have taken place.

Medicated inhalations were prescribed, composed of the following articles:—

Alcohol, (ninety-five per cent.)

Chloric ether.

Essential oil of bitter almonds.

Balsam Tolu.

Gum camphor.

Nitric acid.

Of this preparation, the patient was directed to pour upon the sponge in the glass globe, about two tea spoonfuls, and to inhale from five to ten minutes, at intervals of from four to six hours. I also prescribed a lotion of nitro-muriatic acid, to be applied to the chest daily, using friction freely after each application.

In addition to this, he was recommended to wear a respirator or coarse cloth upon the chest, saturated with alcohol and water, day and night. And thus the patient was constantly surrounded with the vapor of alcohol, of which he inhaled or breathed every moment. This course of treatment was faithfully and perseveringly carried out by the patient as above described, with the exception of such alterations and changes in the composition of the vapor as the symptoms and the condition of the patient from time to time indicated.

As the morbid character of the expectoration became changed, and was gradually converted into a healthy mucus, the nitric acid was discontinued, and the vapor rendered somewhat astringent, by the substitution of tannic acid. And thus the expectoration, which was profuse, rapidly diminished in quantity and improved in quality; while the constitutional energies, and the powers of the system, were gradually elevated to their healthy and natural standard.

And certainly no better evidence can be wanting of the

value of this mode of treatment than the fact of the patient's full and complete restoration to health.

It is proper to state, that all these beneficial results were attained without the use of drugs administered by the stomach.

In a letter, received from this gentleman a few weeks since, he informed me that his health still continues good; and, to use his own language, he says, "I feel as if I were growing young again."

The origin of this disease, which finally became so formidable, can be clearly and distinctly traced to a chronic catarrhal affection. The symptoms of what is usually termed a "slight cold," or catarrhal affection, are too apt to be disregarded, and deemed unworthy of our attention. Thousands annually fall victims to bronchial and pulmonary diseases, consequent upon a neglected cold or cough.

#### CASE II. — *Consumption.*

C. W. B., aged thirty, a highly respectable merchant, residing in Boston, Massachusetts, came under my care on the 5th day of March, 1856.

His appearance was very unfavorable, his health having been on the decline about six months. The history and symptoms of his case were such as to leave no doubt in my mind of its being a genuine case of phthisis, (consumption,) which opinion was further confirmed by a careful stethoscopic examination; as I found the superior lobe of the left lung in a tuberculous condition, the

tubercles being already in the process of softening, or suppuration.

He expectorated daily large quantities of matter, of a greenish-yellow appearance, attended with a distressing cough, and the most profuse and debilitating night sweats. At the time he applied to me, he was incapable of undergoing the least bodily exertion without extreme fatigue and exhaustion, and very soon was obliged to entirely relinquish business. I should remark that the action of the diseased lung was, in a very great degree, suspended; in consequence of which that portion of the chest was very much flattened, or depressed.

For about ten weeks he was confined to his room, and during a portion of this time, such was his extreme debility and physical exhaustion, that he was scarcely able to walk from his chair to his bed.

The treatment adopted in this case was the inhalation of a vapor composed of alcohol, nitric acid, creosote, benzoic acid, camphor, essential oil of bitter almonds, and fusel oil. The use of this vapor was continued, with some slight modifications or changes, for about twenty days. Under this plan of treatment the character of the secretions improved, though the expectoration was somewhat increased in quantity. With a view to lessen the amount of expectoration, the nitric acid was omitted, and instead of it, added the tincture of tolu and tannic acid. From this time the improvement of all the symptoms became more manifest. But as the patient was unable to exercise in the open air, his improvement was less rapid.

With a view to arouse and augment the vital forces, sponging the entire surface of the body with dilute alcohol and a small proportion of ammonia was faithfully attended to every day. A nourishing and supporting diet, with the moderate use of some stimulant, and such other means as were calculated to subdue the nervous irritability and constitutional derangement, which are always, in a greater or less degree, attendant upon this disease, were resorted to. No patient was ever more faithful in the use of the means placed in his hands for recovery; and as a reward for his perseverance, his cough gradually diminished, the night sweats ceased, appetite improved, respiration became easy and natural, and at the end of four months every morbid sign had disappeared from the lungs, and his general health and strength were completely reëstablished; since which time he has been able to pursue his business without interruption.

Moreover, it may not be uninteresting for the reader to know, that since his recovery he has made application and received a policy of insurance upon his life.

But, however extensively applicable and well adapted these remedies may be in a large proportion of tuberculous cases, it should be borne in mind, that the treatment requires to be varied, and materially modified, from the peculiarities of individuals and the circumstances which may take place during its employment. A heedless perseverance in the use of any remedy or set of remedies, however powerfully curative, if not judiciously administered, will often create more mischief, and

produce more suffering, than the disease which has been attempted to be relieved.

The symptoms of pulmonary diseases are so varied, and so dissimilar in their nature, that their treatment cannot be made a simple matter of prescription. Every scientific physician, of ample experience, knows full well how often his judgment and skill have been severely taxed in adapting his treatment to meet the various indications and conditions of his patients.

CASE III.—*Chronic Catarrh, complicated with Asthma.*

The following communication, addressed to me, affords a striking instance where chronic catarrh, from being left to itself, has extended downwards, affecting the mucous membrane of the throat and air passages, and finally terminating in spasmodic asthma.

Dr. Dillenback. Dear Sir: Believing that the following facts will be of interest to many of the afflicted, who, like me, have sought in vain, through months and years, for relief from a most distressing and disagreeable malady, I am induced to place at your disposal, for publication or otherwise, as you may think proper, a brief sketch of my own case, and the benefits I have received from your treatment. I have been for eight years past suffering from chronic catarrh and asthma, caused by frequent and protracted colds in my head. It commenced with inflammation of and copious discharges from my eyes

and nose, of a thin, scalding, watery secretion, with an inflammation and tickling sensation in my throat and ears, accompanied with difficulty of breathing on the slightest exertion or exercise ; in addition to this I had a dry cough, with a wheezing sound at every inspiration of the breath. This stage of the disease usually lasted me from one week to three. During this time the passage through the nose appeared to be very much swollen, so as to be almost entirely closed up, and I could not breathe through the nose, taste, nor smell ; and this was followed by a profuse discharge of thick, dark-colored matter, of a very offensive odor, and after a few weeks gradually growing thinner and lighter colored, and then commencing again like a fresh cold, and passing through the above-named changes ; so that I can say I have been hardly free from one or another of the different stages of this disease during this time. My head was always more diseased in winter than during the summer months, though I have had more severe attacks of asthma in warm weather than in cold. For the past six weeks, I am happy to say, I have enjoyed better health than I have for the last eight years. I have not only enjoyed a perfect exemption from asthma, with one slight exception, (which was caused by taking a severe cold,) but I can now taste, smell, and breathe through my nose as well as ever I could.

I would remark that I was under Dr. Dillenback's care and medical treatment about six months ; and I say it with pleasure and profound gratitude, that I owe my present

improved state of health entirely to his treatment ; and, furthermore, let me add, I have the most perfect confidence in this mode of treatment for the cure of catarrh, asthmatic and throat difficulties, not only from my own case, but from the equally successful results of many others, who were, during this time, under his care.

MRS. A. M. B.

UNION, *Maine*.

*Remarks.* — The writer of the above correspondence is a married lady, about twenty-four years of age, and came under my care on the 31st day of October, 1855. As she has so well described her symptoms, it will only be necessary to make a few additional remarks. I found this lady, as might be expected, with her general health considerably impaired — the mucous membrane lining the throat studded with enlarged or diseased follicles, and in a highly inflamed condition ; the epiglottis could be seen projecting above the back or root of the tongue, and its investing membrane appearing red and vascular. There was also more or less hoarseness and indistinctness of the voice, accompanied with cough and expectoration ; and superadded to these symptoms were those of spasmodic attacks of asthma.

All this was the result — it is perfectly plain and easy to understand — of the muco-purulent matter dropping down from the posterior nares upon the epiglottis, and thus communicating its irritating and poisonous properties to the pipes communicating with the lungs.

Had this cause of irritation been suffered to go on a

few months more, there can be but little doubt that some organic lesion of the lungs would have been developed, which ultimately must have proved fatal. The treatment consisted in the use of topical remedies — showering the throat and laryngeal cavity with the nitro-argentine solution ; applications being also made to the nasal passages with a silver showering syringe, about three times a week. The patient was also directed to inhale a medicated vapor, composed of the following articles ; viz., alcohol, chloric ether, nitric acid, balsam copaiba, gum camphor, tincture of sanguinaria, and oil of bitter almonds. Under this course of treatment, in a few days the patient's improvement was decidedly manifest. Her cough and expectoration, as well as the discharges from the nasal passages, were very much diminished ; breathing, which at times was extremely short and difficult, became more natural, while the asthmatic symptoms were becoming less and less frequent. At the end of two months the topical applications were discontinued, all evidences of diseased action about the throat having disappeared. But the patient was required to continue the use of inhalations, with some slight alterations as to time and quantity, for several months longer.

And I am gratified in being able to say, that the most perfect recovery followed, and that the patient has remained in good health up to the present time.

CASE IV.—*Consumption, attended with Bleeding at the Lungs.*

G. S. H., twenty-four years of age, residing at Ashland, Massachusetts, consulted me December 5, 1855. He stated to me that he was attacked with hemorrhage from the lungs about the first of the month, at which time he bled in all about one quart. He was very much reduced in strength and emaciated in appearance, attended with a distressing cough and a copious expectoration of a purulent character. His strength failed so rapidly that he was obliged to give up business, being engaged in the manufacture of boots and shoes.

The examination of his chest with a stethoscope pointed unequivocally to a tuberculous condition of the lungs, as the origin and sole cause of the difficulty. His breathing was quick, respiratory murmur feeble and indistinct; and on percussion I found a dull sound over the left sub-clavicular region.

His former medical attendant gave it as his opinion that he would probably not live more than three months, and regarded his case a hopeless one.

In the case of this young man, I ordered a mild and nutritious diet, with cold applications of dilute alcohol upon the chest. Prescribed inhalations, composed largely of oleum terebinthinæ, in combination with hydrocyanic and nitric acid, occasionally employing astringent vapors, composed of tannic acid and creosote.

By these means the more urgent symptoms were speedily removed ; respiration, which was hurried and difficult, became easy and natural ; cough gradually diminished, and expectoration ceased ; resulting from these improved symptoms, his appetite increased, and in about six weeks from the time he came under my care, every untoward symptom had disappeared, the patient having gained seventeen pounds in weight ; and since which time, to use his own language, " he has been able to perform as much labor as at any former period of his life."

*Remarks.* — It is a fact worthy of notice, that in cases similar to that above alluded to, the vital forces of the system are exceedingly weak, having been lowered by the excessive drain of the life-dispensing stream from the lungs. Who does not know that the old routine which, under these circumstances, with a view to relieve the symptoms, would, perhaps, have consisted in the further abstraction of blood from the arm, and in having recourse to other measures no less debilitating in their effects, such as antimonial or croton oil sores, covering a large portion of the chest, and perhaps a seton, — a running sore in the side, — can only serve to increase the sufferings of the poor unfortunate victim, and render doubly miserable the few remaining days of his existence ?

CASE V. — *Chronic Bronchitis, with Elongation of the Uvula.*

Mr. J. B., of Boston, Massachusetts, aged sixty, called at my office, January 31, 1856, with a view to consult me in relation to a chronic cough, with which he had been afflicted for many years, and for the relief of which he had tried most of the ordinary remedies, and consulted several of the best physicians in the city without any apparent benefit.

His case presented the following symptoms: pallor of the countenance, with debility and loss of flesh. On inspecting his throat, I found the uvula enormously elongated and enlarged, — though this had escaped the attention of his former physician, — a distressing spasmodic cough, coming on at intervals during the day, and continuing from five to ten minutes each time, and with such severity as almost to produce strangulation. During the summer months his symptoms usually abated, but became aggravated on the approach of autumn and during the cold season, and were seldom relieved by any medication whatever, until the return of warm weather. The physical signs were the mucous rattle over various parts of the chest, with slight crepitation; but there were no decided indications of organic lesions of any part of the lungs. His expectoration was often extremely difficult, profuse, and of a muco-purulent and somewhat fibrinous character.

The first thing to be attended to, in the treatment of this case, was the removal of the diseased and elongated uvula. I then directed warm inhalations, composed of iodine, hydriodate of potash, the inspissated juices of conium, belladonna, and lactuca: these remedies soon produced a very soothing and agreeable effect upon the inflamed mucous membrane; changing the character of the secretions, and materially modifying the condition of the cough. I also recommended the use of Jamaica rum as a stimulant, and a generous and nutritious diet, with as much exercise in the open air as his strength would permit. So surprising was the effect of this treatment from the first, that the patient was enabled to lie down and sleep comfortably all night, which he had not been able to do in several months before.

Upon the third day after the employment of these remedies, the patient called at my office, and informed me that his paroxysms of coughing were greatly relieved, and that he felt "like a new man;" he was now able to rest well at night, and felt refreshed in the morning. This course was pursued some ten or twelve days, when I put him upon the use of a warm vapor, composed of balsam Tolu, balsam copaiba, ipecac, hydrocyanic acid, conium, and lactuca. Under these measures the patient continued to improve rapidly; and at the end of twenty days his cough was cured, and there seemed to be a decided change in his appearance, as well as an improvement in all the functions of the system.

This gentleman called on me a few weeks since, and

informed me that he had never suffered from a relapse of his former malady, and that his general health and strength continued very much improved.

*Remarks.*—Cases of this kind fall under my observation almost daily, and I have scarcely ever known an instance in which this plan of treatment, modified and changed to suit the various conditions of the patient, has failed to relieve the symptoms, and to be followed by the most beneficial results.

By the soothing effect of these warm vapors upon the exhalant vessels of the mucous membrane, the irritation consequent upon sore throat, inflammation of the tonsils, and other affections of the air passages, can be speedily subdued; and thus one of the most common and exciting causes of consumption may be effectually prevented. These warm vapors act upon the same principle that warm fomentations do when applied to the surface of the body, and hence are better adapted to all cases where any considerable degree of inflammatory action is present, either in the lungs themselves, or their mucous surfaces, than cold vapor, or those administered of the natural temperature of the air. The temperature of the vapor, its character, and its peculiar mode of administration, however, can only be safely determined by the wisdom and skill of the scientific and experienced physician.

“I am thoroughly convinced,” says that distinguished English physician, Sir Charles Scudamore, “that in proportion as inhalation in tubercular consumption and chronic bronchitis is more used, and really understood

and done justice to, so will its high value become known, and its good name be established.”

CASE VI. — *Asthma, attended with Ulceration.*

The following strong proof of the curability of asthma by inhalation was communicated and published in the Boston Traveller:—

Editors of the Boston Traveller.—Gentlemen: Allow me, through the columns of your excellent paper, to say a few words in regard to the treatment of inhalation, as practised by Dr. Dillenback, in asthmatic and lung difficulties.

I have been a sufferer from that most distressing of human maladies, asthma, for many years. For many weeks in succession I have not been able to lie down, but have been obliged to pass the weary hours of night in my chair, getting little or no rest. I had also a very distressing cough—coming on from time to time in such severe paroxysms as almost entirely to stop my breath. My difficulty of breathing has sometimes been such, that if I had been in possession of the wealth of the Indies, I would have freely given it all for a few moments of relief. As is usual, under such circumstances, I tried all the ordinary means—patent medicines, &c.; but my disease seemed to be growing worse daily, my paroxysms of asthma becoming more and more frequent. As my last and only hope, I sought the advice of Dr. Dillenback,

of this city, under whose direction I have employed medicated inhalations (from an apparatus constructed for that purpose) from three to four times a day, which I am happy to say had the effect to relieve me at once. Before I had inhaled half a dozen times, I could breathe more freely. I can now lie down and sleep comfortably all night, and feel confident that, by continuing its use, I shall be fully restored to health and strength. I cannot be sufficiently grateful for the comfort and relief I have experienced, under a kind Providence, by this mode of treatment. And I feel that I am performing but a Christian duty in presenting the public with a history of my own case, in the hope that others, similarly afflicted, may experience the same wonderful and truly beneficial results.

Yours, truly,

T. F. M.

SHAWMUT AVENUE, BOSTON, *February 8, 1856.*

*Remarks.* — The author of the above communication was a gentleman sixty-five years of age, and by occupation a stone-cutter. On examination, I found an elongation of the uvula, an ulcerous condition of the throat; and from a constant tendency to hoarseness and irritation of the larynx, I came to the conclusion that this ulceration had extended to the vocal ligaments. On careful examination with the stethoscope, I found the usual symptoms of bronchitis, and evidences of enlargement of the air tubes; but no organic lesion of the pulmonary tissue had taken place. The uvula was removed, and the

fauces and pharyngeal membrane were freely showered with a strong solution of argenti nitratis. These applications were repeated twice or three times a week, and occasionally applications were also made to the laryngeal cavity.

At the same time, the patient was ordered to inhale a vapor composed of chloric ether, ipecacuanha, and balsam Tolu, observing the usual physical course, with a view to invigorate and augment the powers of the system.

Under this plan of treatment, the irritation of the bronchial tubes was readily removed, and all spasmodic action overcome; and by the dislodgement of the morbid secretions obstructing the bronchi, the oppression and difficulty of breathing also passed away. From the strong habit the disease had acquired in the system, and considering his age, there will, probably, always be more or less tendency to a recurrence of the difficulty.

It is necessary, in all long-standing cases of asthma, that the treatment should be persevered in for a long time, occasionally suspending its use, and then returning to its employment, as before. It is by faithfully pursuing this course only, that we can hope to overcome so inveterate a malady. Of all the diseases to which the lungs are liable, there is none, perhaps, which more speedily yields to the action of inhaled remedies than spasmodic asthma. Especially true is this in all cases where disorganization of the bronchial tubes and air cells have not already taken place. After these symptoms

have supervened, a temporary relief is all that we can hope to obtain.

CASE VII. — *Chronic Laryngitis.*

One of the principal female teachers of the Bigelow School, South Boston, consulted me on the 5th day of June, 1856, for an affection of the larynx and throat, under which she had been laboring for a considerable length of time. The difficulty at length became so serious that she could scarcely speak above a whisper, amounting to almost a complete state of aphonia, or loss of voice; in consequence of which she was obliged to resign her situation as teacher, for the time being, "not knowing," as she remarked, "but that it would be forever."

As is usual, under the old routine of practice, she had had her throat sponged at different times with nitrate of silver, and had made use of various other remedies prescribed by her physicians, without any apparent relief. When she came under my care, her throat and fauces were very much inflamed; evidently there existed considerable congestion, and a thickened state of the mucous membrane surrounding the larynx and glottis.

I prescribed *warm inhalations*, composed of conium, ipecac, and lactuca, which had the effect, in a few days, to relieve all the inflammatory symptoms. These remedies were continued for about ten or twelve days, when her respiration was very much improved, and her voice

stronger. I then directed her to inhale a *cold vapor*, composed of alcohol, tincture sanguinaria, Tolu, and camphor; under these measures her symptoms continued to improve, and at the end of twenty days she had so far recovered as to be able to converse freely with her friends.

At this stage of the disease, with a view to improve her general health, I recommended a tour into the country; and I take pleasure to say that she returned with improved health and bodily vigor, and resumed her former duties as teacher. I have a number of cases under my care at the present time, in different stages of the same disease, who are improving rapidly under the use of inhaled remedies, and without the application of caustics.

CASE VIII. — *Laryngitis, or Clergyman's Sore Throat, with Loss of Voice.*

Miss M. C., a young lady of healthy parentage, aged nineteen years, residing at Malden, Massachusetts, came under my care on the 30th of October, 1856.

She had been laboring under a chronic laryngeal affection for about a year and a half. Her symptoms were as follows:—

Great debility, loss of voice, tenderness on pressure over the lower part of the larynx, attended with distressing paroxysms of coughing, laborious and difficult breathing. Upon examining the throat, I found a high degree of inflammation of the fauces, presenting a mottled appearance. By pressing down the base of the tongue

with a bent spatula, the epiglottis could be seen standing erect, very much enlarged, and rolled up, resembling a scroll. The moment any food or drink was presented to the pharynx, the patient was instantly seized with violent and convulsive fits of coughing, which would usually continue several minutes. Physical examination of the chest gave no evidence of disease of the pulmonary organs.

Treatment was commenced by making applications with the laryngeal syringe, directly into the cavity of the larynx, and also freely showering the fauces and pharynx. These applications were continued at intervals for several weeks. I prescribed inhalations of belladonna, chlorine, and ipecac, with an alterative composed of hydriodate of potash and extract of sarsaparilla, to be taken internally. This plan was unremittingly persevered in, with some slight changes, for five weeks, when all the morbid signs, cough, expectoration, and hoarseness, had entirely disappeared, and her general health was materially improved.

*Remarks.* — The symptoms of this case were so prominent and strongly marked as to leave no doubt, in the minds of several highly intelligent and respectable medical gentlemen of this city, of the presence of ulceration of the investing membrane of the larynx. It was the opinion of these gentlemen that her case would speedily prove fatal. The usual remedies had been faithfully tried — strong caustic applications, with nitrate of silver, had been frequently made ; but it was evident that the

seat of the difficulty had not been reached. The agreeable surprise the patient expressed, the first time of inhaling a soothing vapor, I can never forget. As she remarked, she soon sank into a quiet slumber, and enjoyed a degree of repose to which she had been a stranger for many months. I do not assert that every case would inevitably recover, under the influences of medicated inhalations; but of the thousands who annually fall victims to bronchial and pulmonary diseases, a very large proportion might be saved, without a doubt, by an early and persevering application of these principles.

Chlorine gas was first medicinally employed in the year 1804. It was found that persons engaged in bleaching manufactories, being constantly exposed to the fumes of this gas, were almost entirely exempt from pulmonary diseases. M. Gannal, an eminent French *pharmacien*, also observed, that individuals who had been laboring under complaints of the larynx and air passages, who had subsequently been employed in these manufactories, were speedily and permanently restored to health. From these circumstances this gentleman was induced to construct an apparatus from which persons suffering from diseases of the respiratory organs might inhale chlorine gas in a diluted state. The most remarkable success attended these experiments; many of the most hopeless and desperate cases being cured, when the usual modes had failed. Dr. Cottreau, a physician of considerable celebrity from the city of Paris, introduced this remedy to the notice of the profession in the year 1824, by some

well-written articles, published in the "Journal Hebdomaire," and in the "Archiv. Gén. de Médecine." He mentions many cases of the most inveterate character, that were perfectly cured by the inhalation of chlorine, where the hereditary tendency, the conformation, the nature and succession of the symptoms, all concurred to prove the existence of the disease. Chlorine is a very active and powerful agent, and should always be employed with great caution and judgment. In experienced and scientific hands, I consider it perfectly safe, and free from the slightest risk or inconvenience. To avoid the irritating effects which otherwise might be occasioned from its use, it should always be combined with suitable anodynes; of these, I have usually found the extract of conium, belladonna, lactuca, and sometimes hyoseyamus, to answer a very good end. From extensive observation and experience, I regard the inhalation of chlorine as one of the most efficacious remedies we possess, in promoting healthy secretions, and causing the cicatrization of ulcers in the lungs. Belladonna is also a remedy of the first importance in the practice of inhalation. Its influence upon ulceration of the mucous surfaces, and in tuberculous cavities, as well as in most nervous, convulsive coughs, cannot be over-estimated. In those severe paroxysmal coughs which usually attend bronchial and laryngeal complaints, I have seen the most decidedly beneficial results follow its use. In these affections, it may, indeed, be almost regarded a specific. Hydrocyanic acid may be employed with occasional

advantage in diminishing the irritability of the bronchial passages, cough, and nervous restlessness.

CASE IX. — *Consumption.*

M. W. C., a young gentleman, aged 23, residing in the city of New York, consulted me July 22, 1856. He informed me that he was attacked with hemorrhage of the lungs in December, 1854. For some length of time previous to this event, he had been troubled with a slight hacking cough, and a sense of general lassitude or debility.

Within one week he had three different attacks of hemorrhage, which were succeeded by such extreme prostration of all the powers of the system, that it was with difficulty that he could audibly utter even the very shortest sentences. Breathing was hurried and difficult, cough very distressing, and he daily expectorated large quantities of thick, dark-colored matter. He had the advice of several eminent physicians in the city, who pronounced the right lung in a tuberculous condition. The usual remedies were prescribed, and his symptoms were carefully watched, from day to day. As the spring approached, after being confined to his room three months or more, he was enabled to take gentle exercise in the open air, which served in some degree to invigorate the system and improve his general health. Still the cough continued very obstinate, accompanied with a constant sense of oppression and shortness of breath, the

breathing producing, at each inspiration, a rattling or gurgling noise.

These symptoms continued unabated during the summer of 1855. The least exertion in walking, or on taking any kind of exercise, particularly going up stairs, brought on severe paroxysms of coughing, and great distress in his lungs. His appetite continued poor, and there seemed to be but little encouragement that he would ever be any better. In the autumn of 1855, his attending physician advised him to go to Florida, hoping that, by a change of climate, some favorable results might be effected, which *his* remedies had failed to accomplish. This was done; and during his stay he was advised to take horseback exercise, and to engage in other amusements, such as fishing, hunting, &c. But so far from producing any beneficial results, the exercise, together with the debilitating effect of the climate, soon brought on another attack of hemorrhage. This again prostrated him, and thus he lost all that he had gained since his former attack. In the following summer, July, 1856, he returned, hopeless and desponding, to New York, but little better than when he left. Soon after, he came on to Boston to visit some friends, and through their advice was induced to consult me, and, as a last resort, to try the effect of inhalation.

When I first saw this gentleman, his countenance was pallid, cough very annoying and troublesome, expectoration puriform, and presenting all the qualities of phthisical sputa. His appetite was capricious, the vital

powers feeble, and evidently he was unable to bear the least exertion without being completely exhausted.

On examination of the chest, the summit of the right lung presented the following morbid signs: well-marked pectoriloquy, mucous ronchi, the absence of the usual respiratory murmur, and dulness on percussion. With these evidences before us, we could no longer doubt the existence of extensive tubercular disease, and that in a somewhat advanced stage.

He was ordered to discontinue the use of all remedies by the stomach, and to inhale a vapor composed of extra alcohol, fusel oil, nitro-muriatic acid, balsam Tolu, gum camphor, and oil of bitter almonds. He was also directed to bathe or sponge the body with alcohol and water daily, and to employ an embrocation of weak nitro-muriatic acid upon the chest, followed by friction with the flesh brush, or coarse towel. This, with a nutritious and generous diet, daily exercise in the open air, and the use of Bourbon whiskey or porter, as a stimulant, constituted my plan of treatment. For the first three or four weeks there seemed to be but little change in the patient's symptoms, except in the quantity and quality of the matter expectorated. During the month of September he began to find his breathing very much improved, so that he could make considerable exertion without fatigue; with these symptoms his appetite also improved, and there was a general increase of tone and vitality in the system. These measures were perseveringly followed, with a slow, gradual improvement in all

his symptoms ; so that, by the first of December, his health and strength had become sufficiently established to resume his former business, which he has been able to attend to without interruption, being daily exposed, more or less, to the severity of the weather and the sudden changes of temperature. Yet, he remarks, that he has been constantly improving ; breathing has become natural, cough and expectoration have ceased, and he can now ascend a flight of stairs at a rapid pace, with very little inconvenience or fatigue.

*Remarks.*—In support of the inhalation of alcoholic vapors, as a remedy in tubercular phthisis, we have only to look at the chemical changes which take place in the living organism.

The human body is a compound of chemical elements. These are acted upon by two forces, viz., a vital and chemical. The former serve to supply the waste, and build up the human fabric, while the latter decompose, destroy, and carry off its substances. Life is a series of chemical changes, the destroying forces being just as necessary to sustain life and health as the recuperative or repairing forces. Without chemical change the vital principle will cease, the same as a lamp is extinguished when the oil is consumed.

As the burning of coal or wood generates heat to keep us warm and comfortable during the cold season, so the combustion of suitable materials within the human body serves to keep up a proper degree of animal temperature, and sustain the vital functions. Dr. Pereira observes,

“In the natural and healthy condition of the system, the ordinary food supplies the necessary carbon for the support of animal heat.” When nutrition is imperfect, or when food is withheld, the fat of the body is consumed, by the oxygen seizing upon it and converting it into carbonic acid and hydrogen. Experience has shown that the heat of the blood, in health, is the same in all climates and in all conditions of atmospheric temperature.

Now, it follows that a larger quantity of combustible matter is required in cold climates and cold weather, for keeping up this temperature, than in hot climates and warm weather ; since a greater amount of heat must be given off in the surrounding media in the former than in the latter.

Hence the necessity of a more ample supply of food in cold weather ; and its diminution, and the change of its selection, in warm weather and warm climates. Sir John Ross, in his remarks on the habits of the Greenlanders, observes, that it would be “very desirable if the men who accompany expeditions into that country could acquire a taste for Greenland food, since all experience has shown that the immense quantities of train oil and animal food which the inhabitants of those regions consume is the true secret of life.

Dr. Kane also remarks, from observations made in his arctic expedition, that the natives of those regions were in the habit of consuming large quantities of animal oil and raw meat, several days previous to embarking upon

a journey, and thus were enabled to endure the most intense cold — the thermometer being many times more than a hundred degrees below the freezing point. In view of these facts, how absurd and ridiculous the idea of the vegetarians, in their advocacy of an exclusive vegetable diet. Why is this great demand for carbon, unless it be to supply material for heat? He takes it for the oxygen to consume, and thus saves the consumption of his lungs and body, which would be the substitute; he requires it as much as a lamp does oil.

In consumptive habits, it is well known that the vital forces are weak, and that they are unable to supply the constant demands of the oxygen, or at least to protect the system against its encroachments. In all chronic diseases, death is produced by the same cause, namely, the chemical action of the atmosphere. "When those substances are wanting," says Liebig, "whose function in the organism is to support the process of respiration or combustion; when the diseased organs are incapable of performing their proper functions of producing these substances; when they have lost the power of transforming the food into that shape in which it may, by entering into combination with the oxygen of the air, protect the system from its influence,—then the substance of the organs themselves, the fat of the body, the substance of the muscles, the nerves, and the brain, are unavoidably consumed."

The flame is extinguished because the oil is consumed; and it is the oxygen of the air that has consumed it.

A distinguished writer very justly remarks, "We want the heat and force ; to evolve heat, we must have tissue ; to have tissue, we must have food. If any one can show us how to save our tissue and get the heat, we shall only be too willing to adopt his plan." Alcohol, being a highly carbonaceous compound, and having a stronger affinity for oxygen, protects the living tissue, and sacrifices itself to the voracious element. The vapor of alcohol, being inhaled into the lungs, passes without change directly into the blood, and becomes respiratory food. It is an incontrovertible fact, that if we can introduce into the system a sufficient amount of carbon, in some form, to counteract the destructive tendencies of the oxygen that is momentarily inspired, we shall at once arrest the wasting, or process of decay.

A simple fact will illustrate this: If we pour alcohol upon a bed of burning coals,—which is no more than carbon in a state of ignition,—it is evident that the former, by burning more readily, will shield the latter from the corroding action of the oxygen. Now, this is precisely what is going on in the human body. If a sufficient amount of carbon can be introduced into the blood, the result must be the same: the oxygen will consume it, and the tissues will be preserved.

So long as the flame of life is furnished with fresh supplies of fuel, the oxygen has something to feed upon ; but when the fuel, or nutrition, fails, or when the system loses the power of converting it to use, it feeds first upon the adipose or fatty portions, then upon the muscles and

tissues of the body, until the whole is consumed and the noble fabric falls. Thus while living we die ; for every breath of oxygen we take into the lungs, an equal amount of living matter is destroyed. This interchange of life and death is ceaseless, and must continue during the entire period of our existence.

The consumptive, it may be said, is consumed alive ; " the corroding tooth " of oxygen, unbalanced by nutritive deposit, is picking to pieces the very substance of his body. To check this destructive agency, and resist the wasting away of the tissues, a due supply of carbonaceous matter must be introduced into the blood. Having arrested the process of decay, and augmented the sum of the vital forces by the inhalation of alcoholic vapor into the lungs, it follows that the powers of digestion are increased, the patient is able to take larger quantities of food, while the powers of nutrition are also more perfectly performed. This, with a proper degree of exercise, pure air, and a nutritious diet, will do more to correct a tuberculous diathesis, and prevent the further deposition of tubercular matter in the lungs, than any course of treatment hitherto adopted. Moreover, the gently stimulating influences of alcoholic vapor, acting upon the absorbent system of vessels in the lungs, causes a rapid removal of the tubercular deposits by absorption, and the patient is once more enabled to fill his lungs with that element which alone can purify and preserve the healthy functions of the system. Such, then, is my theory of the inhalation of alcoholic vapors, as a remedy in tubercular disease.

That it has been attended with a degree of success hitherto unattained in any other form or mode of practice, cannot be denied. Conceiving these principles to be of the highest importance in the removal of one of the most terrible inflictions upon mankind, we cast them forth as "bread upon the waters," in the hope of more happy and triumphant results.

CASE X.— *Consumption attended with Hæmoptysis.*

E. C. T., of Haverhill, Massachusetts, aged 35, formerly conductor of one of the principal railroads leading out of Boston, came under my care on the 29th of December, 1855. This gentleman's symptoms were as follows: shortness of breath, pain in the chest, severe cough and expectoration. He had had several attacks of bleeding from the lungs, and this symptom finally seemed to have assumed a chronic form, as there was a strong tendency to a recurrence of the difficulty. As might be expected, under such circumstances, his physical powers gradually yielded under the influence of the disease, and he was obliged to relinquish business.

When he consulted me, he stated that he had been suffering from this difficulty nearly three years, a portion of the time being very feeble. He expressed a great degree of anxiety in regard to his situation, and desired me to make a very thorough and careful examination of his chest. I found extensive tubercular deposits in his

left lung, the mucous follicles of the throat considerably enlarged, and the membrane presenting a thickened and unhealthy appearance. Having had but little knowledge of my system of practice by inhalation, and being somewhat conservative in his views of medical treatment, it was with some little hesitation that he concluded to place himself under my care.

He was directed to inhale a medicated alcoholic vapor, composed of oleum terebinthinæ, nitro-muriatic acid, essential oil of bitter almonds, gum camphor, fusel oil, and chloric ether.

Subsequently the terebinthina and nitro-muriatic acid were discontinued, and tannic acid and balsam Tolu were substituted. He was also directed to wear a coarse cloth upon the surface of the chest, saturated with diluted alcohol. This course was perseveringly followed, with some slight modifications, together with such physical measures as were calculated to invigorate and raise the general tone of the system, for about three months.

In this time I had the satisfaction of witnessing the disappearance of the cough, expectoration, and every morbid sign about the chest and throat, and a gradual return of complete and uninterrupted health. For a year past he has been engaged in active business, and I am not aware that he has lost a single day on account of his health.

*Remarks.*—In cases of this kind, where hemorrhage has occurred, or where any predisposition to it exists, a vapor should never be inhaled above the natural

temperature of the atmosphere we breathe. However appropriate and well adapted a warm vapor may be to some peculiarities of throat and lung disease, its use must always be contraindicated under such circumstances.

CASE XI. — *Chronic Catarrh, with Loss of Smell and Taste.*

[COMMUNICATION.]

BOSTON, November 29, 1855.

To H. P. Dillenback, M. D., No. 8 Cambridge Street. — Dear Sir: Having been cured of a very obstinate chronic catarrhal affection, of some ten or twelve years' duration, I cannot better express to you my gratitude than to present you with the following plain statement of my case, for publication or otherwise, as you may direct. I deem this not only an act of justice due to you, but to all who may be similarly afflicted to what I have been.

When I commenced your treatment, I was scarcely able to breathe through my nostrils at all; one nostril, indeed, was entirely obstructed. My sensation of taste and smell were also very much impaired. I constantly experienced a profuse discharge of offensive, disagreeable matter from my nasal passages, and it, dropping into my throat, was coughed or hawked up. From the incessant irritation which was kept up, in hawking and spitting, with a view to remove the matter, my throat also became diseased.

During this time I had more or less cough and expec-

toration, attended with a degree of hoarseness at times. These symptoms continuing to increase, I began to fear that unless my disease was soon arrested, my lungs would next in turn be attacked. Such was my condition when I placed myself under your care.

I commenced your treatment, as you will recollect, by inhaling vapor No. 4, which you directed me to inhale from three to four times a day. You also showered my nostrils three times a week. Almost from the outset of this course of treatment, I witnessed with surprise as well as gratification, that my discharges from my head, which had annoyed me for so many years, were growing less from day to day, and changing in character from a foul and disagreeable odor to a healthy mucus. I have stated briefly, in as few words as I could, my symptoms, and the treatment which was so successful in curing me, after having exhausted all the various nostrums and remedies I could hear of, as well as employing some of the best physicians in this city and elsewhere. And here allow me once more to express to you my heartfelt gratitude for your kind and faithful attention to me, also my entire confidence in the efficacy of your treatment for the cure of catarrh, as well as throat and lung diseases.

Respectfully yours,

E. G. O.

CASE XII.—*Chronic Catarrh.*

Mr. G. W. H., aged 26, by occupation a jeweller, and residing in Boston.

This gentleman consulted me on the 26th day of April, 1856. For about five years he had suffered from this most unpleasant and disagreeable malady, for the relief of which most of the usual remedies had been employed, but without any apparent advantage.

As is usual in long-standing cases of this character, his general health had become very much impaired. There was a sense of languor and inactivity attending every movement, whether mental or physical; and, to use his own language, "I am sick." There was almost incessantly a thick, greenish-yellow colored matter dropping down from the posterior nares into the throat, and this at times was quite offensive. Breathing through the nostrils was often attended with much difficulty. The constant presence of this irritating, offensive matter in the throat, caused such a desire to hawk and spit, as to render it very unpleasant and disagreeable to the patient. These symptoms were attended with some cough and expectoration.

In the treatment of this case, the patient was required to inhale directly into the nostrils, as well as the throat, an alcoholic vapor, consisting of nitro-muriatic acid, gum camphor, oil of cubebs, and balsam Tolu. This, together with the daily use of the cold sponge bath, and

an occasional application of some mild astringent to the internal surface of the nostrils, succeeded in restoring healthy action to the parts; and by steadily persevering in this course, varying my prescriptions somewhat, as circumstances indicated, I had the satisfaction, at the expiration of some six or eight weeks, to see the catarrhal difficulty entirely removed, and his general health and strength also very much improved.

*Remarks.*—One of the chief difficulties we have to encounter, in the treatment of this disease, is the extreme liability of the patient to take cold, upon the slightest atmospheric changes. Every fresh exposure to cold is followed by a renewal of the difficulty. Thousands in the enjoyment of the best health at the beginning of the year, fall victims, before its termination, to bronchial and pulmonary complaints, engendered by a “common cold” or “catarrh in the head.” To save the lungs we must cure a catarrh. Wait not until the disease has attacked the very citadel of life, before you apply for relief. It is truly surprising to witness the carelessness, the indifference, patients frequently manifest about themselves in the commencement of these affections. So long as they can walk about with tolerable ease, and perform their ordinary business, they flatter themselves that all is safe, when the complaint is day after day undermining the most vital part of their body. No disease is more perfectly under the control of medical art than chronic catarrh; and yet no disease, of equal importance, in the entire catalogue of human maladies, has been so badly

managed and fatally neglected. It is a remark as old as Celsus, that debility renders the body highly obnoxious to all diseases. Hence it should be a maxim with all who are predisposed, or have any hereditary tendency to consumption, to studiously avoid debilitating causes, from whatever source. Preserve the constitutional vigor of those who have an hereditary tendency to phthisis, and you place them in safety: break up that vigor by long-neglected colds, bad air, improper diet, or any other means, and you hazard their very life.

CASE XIII. — *Chronic Catarrh, with Follicular Inflammation.*

I was consulted by Miss A. B., from the city of Providence, Rhode Island, on the 10th of March, 1855.

This young lady had been suffering severely from a chronic catarrhal difficulty for several years, and for more than a year had complained of an irritation in the throat, causing an almost incessant desire to hawk and spit, attended with some hoarseness, and a slight hacking cough, particularly in the morning. These symptoms passed on unmitigated, and evidently her general health was on the decline. She had made use of various remedies recommended, and had been under the care of a very prominent homœopathist nearly a year. On inspecting the throat, I found the mucous lining of the fauces exceedingly vascular, and of a livid appearance. The mucous glandula, or follicles, also bore marks of extensive

disease. The uvula, partaking of this morbid or diseased action, was considerably enlarged and somewhat elongated.

Evidently, from the history and symptoms of this case, the disease had its origin in the nasal passages. Passing downwards, it had involved the mucous lining and glands of the throat, and there was but too good reason to fear that it would soon take possession of the lungs themselves. A portion of the uvula was at once removed. Topical medications, with the showering syringe, were employed two or three times a week. I directed an alcoholic vapor, composed of tannic acid, oil cubebs, tincture Tolu, and gum camphor.

Internally, I ordered the sirup of the iodide of iron, with a view to raise the general tone of the system, and improve the condition of the blood. The usual physical treatment was also strictly enforced.

The relief which followed these measures was very decided and effectual, the discharges from the head becoming less, daily; the irritating cause being removed, the inflammatory condition of the throat rapidly subsided. With these favorable changes in her condition, her general health and strength gradually returned, and at the end of six or eight weeks she was regarded as perfectly cured.

*Remarks.* — Wherever there is a high degree of inflammatory action present in the throat and its investing membranes, I would recommend the use of a warm, emollient vapor, as better adapted to relieve the symptoms,

and soothe the irritation of the excited vessels, than the "cold vapor." With this view I have employed the "warm vapor" in the inflammatory stages of the disease, and followed it with vapors of the natural temperature of the air, when the inflammatory symptoms had subsided. In this manner the relaxed and debilitated condition of the mucous glands have been restored to healthy action, and the morbid condition of the membrane has returned to its normal or healthy appearance. By this simple and efficacious method, a disease, which has hitherto baffled the best directed efforts of the profession, and proved fatal to thousands, may frequently be cut short in a few weeks.

I have so repeatedly seen the advantages of this mode of treatment in these affections, that I could wish it were universally adopted by every practitioner of medicine in this country. How long will medical men be content to see their fellows die, and yet not make an effort to save them?

#### CASE XIV. — *Chronic Bronchitis.*

H. B., a member of the legal profession of Fall River, Massachusetts, 65 years of age, came to Boston to seek medical advice. He called at my office on the 15th of April, 1856. He had suffered from bronchial irritation, during the winter seasons, for quite a number of years. These symptoms were evidently on the increase; each subsequent attack seemed to be worse than the former, until, at length, his general health and strength had

suffered very considerably, and he felt as if something must be done soon, if ever. The patient was very much debilitated, and gave evidence of being literally worn out by the severe and distressing cough under which he had been laboring so long. He complained of a dryness and sense of uneasiness about the larynx and upper part of the throat.

On examination of the throat, the mucous membrane presented a rough, uneven surface, studded with elevated points, or granulations. Placing the stethoscope upon the upper part of the chest, none of the usual signs of tubercular disease could be detected. There was no change in the natural respiratory sounds, except a slight degree of roughness and crepitation, indicating the inflammatory condition of the mucous membrane lining the bronchi.

The expectoration was of a ropy, glutinous character, and at intervals quite purulent.

The treatment comprised inhalations of alcoholic vapor, hydrocyanic acid, balsam fir, nitric acid, and chloric ether. Bathing, frictions upon the chest with diluted nitro-muriatic acid — in short, a thorough hygienic course was faithfully adopted.

Under these measures, the patient's general health and strength rapidly improved, his cough and bronchial irritation gradually ceased, and with it every morbid sign about the throat and lungs disappeared; the patient having been under my care about two months and a half.

Notwithstanding the strong tendency there is in this disease to return, when exposed to any exciting causes, this gentleman has passed through the autumn, and the usual severity of the past winter, in the enjoyment of excellent health and vigor.

*Remarks.*— Nitro-muriatic acid, when combined with other suitable remedies, is one of the most important remedial agents in inhalation practice. Being, in effect, a solution of chlorine and from the powerfully antiseptic and antiputrescent properties this article is well known to possess, it is, above all other remedies, the one best adapted to change the morbid character of the secretions in chronic ulcerations of the lungs, and set up a healing process in cavities or abscesses when formed. Not only so, but by its immediate and direct action upon the pulmonary exhalant vessels, the expectoration is promoted, and the labored and difficult respiration made easy.

This is not a mere hypothesis or speculative theory, but has been the result of extensive observation and experience. In follicular inflammation, ulceration of the mucous follicles, and ulceration of the laryngeal cavity, the curative powers of this remedy have also been most unequivocally displayed. That this remedy, when inhaled directly into cavities or abscesses in the lungs, has the same decided power of cleansing and causing cicatrization of the parts, as it is universally admitted to possess when applied to scrofulous and indolent ulcers upon the surface of the body, no one can doubt.

CASE XV.—*Subacute Bronchitis.*

W. B. D. S., an intelligent gentleman of this city, aged 30, extensively engaged in a manufacturing business, of naturally good constitution, consulted me on the 20th of September, 1856.

On making some inquiry into the history of his case, I found that he had suffered from several attacks of this difficulty prior to the time of his consulting me. When he came under my care, his case presented the following symptoms: pain and soreness of the throat, attended with hoarseness, and a constant sense of uneasiness and irritation in the larynx. His breathing was labored and difficult, producing a peculiar whistling or wheezing sound at each inspiration of the breath. His whole system was very much prostrated, owing undoubtedly to the deficient decarbonization of the blood, which always attends severe cases of this disease. He had a severe paroxysmal cough, accompanied with an expectoration of a semi-opaque or yellowish sputa, occasionally streaked with blood. His cough was always very much aggravated on lying down at night, and on rising in the morning.

On examination of the chest, the respiratory murmur was feeble, and there could be detected a sibilant ronchus at the superior, and a mucous rattle from the middle, towards the base of the lungs. There was no dulness elicited on percussion. The patient had suffered from

this affection for several months, his symptoms gradually becoming worse, notwithstanding he had been under the care of one of our most respectable homœopathic physicians in this city for some time. Having lost a sister, only a short time previous, with the same disease, he became alarmed on account of his own safety, and determined to make a trial of inhalation. With a view to the removal of the local congestion, I ordered counter irritants upon the surface of the chest; inhalations of belladonna, lactuca, and ipecacuanha, and muriate of ammonia, to allay the irritation and facilitate expectoration. The symptoms proved very obstinate indeed; but by persevering in this course, at the expiration of five or six days there began to be some signs of amendment; the breathing becoming easier, the expectoration more free and less difficult. In about fourteen or fifteen days, a very manifest improvement had taken place in all his symptoms. Encouraged with this degree of success, this plan was unremittingly followed out with some slight changes, as the disease passed through its different stages; and in about five weeks, he had sufficiently recovered to return to business; still continuing to make use of inhalations, but less frequently, for a few weeks more, when the cough had disappeared, and the various functions of the lungs were performed in a healthy manner.

CASE XVI. — *Consumption.*

January 8, 1856, I was requested to call upon Miss A. H., of Brookline, Massachusetts.

This young lady's health had been declining for about two years. She had been under the care of one of our best physicians for a long time, her symptoms becoming no better, but gradually assuming a more serious aspect from day to day. A medical gentleman, of acknowledged ability and reputation, residing in this city, was called upon as counsel. As the result of this investigation, her right lung was pronounced to be in a tuberculous condition, and in a somewhat advanced state. Her friends were informed that there was no good ground for hoping that she would ever be any better.

It was about a week subsequent to this consultation that I was requested to see her. I found her very much debilitated, unable to sit up but a very small portion of the day, pulse quick, — about one hundred in a minute, — a hectic flush upon the cheek, cough troublesome, expectoration somewhat frothy, and mixed with purulent matter. In addition to these symptoms, I found, on making a careful examination of the chest, dulness, on percussion, over the apex, or superior portion of the right lung, with extreme sensitiveness or tenderness to the touch; respiratory murmur faint, and expiration prolonged, attended with distinct mucous and crepitant râles. These morbid signs, together with the patient's general appearance,

afforded strong proofs of the fearful nature and character of her disease ; that she was slowly but surely wasting away under the influence of that terrible destroyer of our race — consumption. In this case, the patient was directed to inhale an alcoholic vapor, combined with nitro-muriatic acid, gum camphor, benzoic acid, essential oil of bitter almonds, fusel oil, and balsam Tolu. Sponging the entire surface of the body with dilute alcohol daily ; a stimulating embrocation applied to the chest, with frictions ; the use of a generous and nourishing diet, with some stimulant, in such quantities as the condition of the patient would allow. This plan was faithfully and unremittingly persevered in, the patient experiencing but little, if any, apparent benefit for the first four or five weeks ; however, she was induced to continue on, and soon began to realize a favorable change in her symptoms : her general health began to improve ; the pain and soreness of the chest were also very much relieved ; appetite improved ; sleep was more refreshing ; in short, there was evidently an amendment in all her symptoms and in about four months she was completely restored to health.

*Remarks.* — This interesting case, it cannot be denied, affords one of the most striking and unequivocal proofs of the curability of consumption by inhalation, even when the most forbidding symptoms, which usually characterize the advanced stages of the disease, have already taken place.

But inhalation, to be successful, must be persevered in ; a few weeks will not suffice for the removal of a

disease which has taken deep root, and spread its baneful influences throughout the entire system.

The success of the case above referred to has, without doubt, in a great degree, been owing to the untiring perseverance and faithful application of the measures prescribed. Had the patient discontinued the use of the remedies upon the first three or four weeks' trial, because all the benefits and relief anticipated were not realized, what must have been the result? The probability is, a few months would have terminated her earthly existence. Here, as we have seen, was a case in which there was no lack of professional talent or ability; every means that could be rendered available, under the old system of treatment, was called into requisition; yet the progress of the disease continued rapid, and her symptoms were alarmingly on the increase.

Under these circumstances, by the direct and continued application of inhaled remedies, this fearful malady was arrested, the tubercular deposits in the lungs rapidly absorbed, and a complete restoration to health the ultimate result.

CASE XVII. — *Consumption, attended with Ulceration of the Right Lung.*

Mrs. H. F., aged 24, of Boston, called on me for medical advice, September 25, 1855. She was of a consumptive family, nearly all of its members having died with this disease.

From her previous history and symptoms, there could be no doubt of the existence of a scrofulous diathesis. I found her laboring under severe cough, difficulty of breathing, profuse muco-purulent expectoration, impaired appetite, digestive powers feeble, accompanied with chronic diarrhœa, the menses having ceased for several months; and, in short, no symptom of advanced phthisis seemed wanting. There was dulness, on percussion, over the region occupied by the upper third of the right lung, and well-marked mucous and crepitant rattles, with broncophony and prolonged expiration, were detected on examination with the stethoscope. The left lung was comparatively free, presenting a slight degree of dulness over the subclavicular region, with respiratory murmur somewhat harsh and jerking. From the incessant diarrhœa which attended this case almost from the beginning, it was evident that the bowels, as well as the lungs, were in a tuberculous condition.

This lady, having seen her nearest relatives, one after another, stricken down by the fell destroyer, in defiance of every effort to save them, very naturally yielded up to despair, in view of her own approaching fate. Her husband informed me that she was daily in the habit of weeping over what, to her, seemed a hopeless condition; and having no confidence in the usual remedies proposed, she was not at all inclined to make an effort to save herself. However, I gradually succeeded in gaining her confidence, and the assurance that she would carry out to the utmost extent of her power every direction. Upon this,

the patient was ordered to make use of a simple yet nutritious diet; daily exercise in the open air, — either by carriage or walking, — as much as the enfeebled condition of the system would permit; dilute alcoholic ablutions, followed by frictions over the entire surface of the body, every morning; with small quantities of pure brandy, to be drank daily, about a half an hour after each meal; to inhale a medicated, alcoholic vapor, comprising nitromuriatic acid, benzoin, gum camphor, chloric ether, essential oil of bitter almonds, balsam Tolu, and naphtha, three or four times a day. Under this plan of treatment, the vital forces of the system were speedily augmented, and the nutritive functions materially improved: with this improved and renovated condition of the assimilative system, the discharges from the bowels became less frequent and the stools more healthy. From this time her general health improved rapidly; the menses returned, and the respiratory sounds of the chest became more natural. During the following winter, she was able to go out in all kinds of weather, without experiencing any unfavorable results.

Having assurances of returning health, she was encouraged to persevere with her inhalations and other measures, through the following spring, when it was found that all her constitutional symptoms had disappeared — cough and expectoration had ceased, and scarcely any traces of the disease could be detected in the lungs. It is worthy of remark, that all these beneficial changes were brought about without the use of a single

grain of medicine by the stomach. This lady was under my care about eight months. I have frequently seen her since, and up to the present time, March 18, 1857, she has never had a return of her former difficulties.

*Remarks.*—I have frequently witnessed, with astonishment and surprise, the rapid improvement in the appetite, the sudden increase of strength, the reanimated vigor of both mind and body, which have been brought about in a few weeks by the simple plan of inhalation, combined with a proper hygienic course of treatment. This of itself should afford sufficient proof as to what ought to be the method of removing debility, and other unfavorable symptoms, consequent upon tubercular disease. To furnish the lungs with fresh supplies of oxygen, and the stomach with nourishing food, will do more to invigorate the system, and restore its lost functions, than all the boasted mineral and vegetable tonics in the land.

#### CASE XVIII. — *Chronic Bronchitis and Sore Throat.*

Mrs. M. J. C., aged 28, residing in this city, of scrofulous habit, applied to me, May 12, 1856. She complained of hoarseness, sore throat, and a very troublesome cough. In addition to these symptoms were pain and soreness in the right hypochondriac region, loss of appetite, constipation of the bowels, leucorrhœa, and a general sense of lassitude and prostration of the vital energies.

Examination of the throat revealed extensive follicular disease, interspersed with ulcerated points, the mucous membrane presenting a rough, indurated appearance. On examination of the chest, no physical signs, indicating tubercular disease, could be detected. Upon making a careful inquiry into the early history and symptoms of the case, I found that the primary seat of the difficulty could be traced to a chronic catarrhal complaint, of several years' standing, and that the irritation had gradually extended, first to the throat, then to the larynx, and subsequently to the trachea and bronchi. The uneasy sensations, which were first confined to the throat, caused by the depraved secretions being poured out from the diseased follicles, had, at length, resulted in a cough, which was gradually increased in severity, constantly becoming deeper and more troublesome as the disease advanced. The slightest exposure, or atmospheric change, served to aggravate and increase the difficulty. As this lady was of a naturally delicate constitution, her fears in regard to her situation were not without good foundation. An alterative was prescribed, to improve the functional derangement of the liver and biliary system; inhalations of chlorine, conium, and ipecac were ordered; and about twice a week, applications adapted to the condition of the mucous membrane were made, with the showering syringe, to the nasal passages and the throat. This plan of treatment soon produced a very marked and decided improvement in her general appearance and health. The soothing and comforting effects of the inha-

lations in relieving the cough, in removing the oppression of the chest, and subduing the inflammation of the mucous membrane, were speedily realized by the patient. With some slight changes, and with proper regard to the usual physical measures, this course was pursued for about two months; the cough in the mean time having entirely disappeared, the mucous membrane of the throat become healthy, the assimilative and nutritive functions of the system again brought into their normal condition, and, as a consequence, the general health and strength were fully established.

CASE XIX. — *Consumption, attended with frequent Attacks of Hemorrhage from the Lungs.*

On the 30th of July, 1856, Miss M. G. D., of Andover, Massachusetts, came to Boston to seek medical advice in relation to a chronic pulmonary difficulty from which she had been suffering more or less for a year.

She stated to me that she had been subject, during her illness, to frequent and repeated attacks of bleeding at the lungs, amounting in quantity from two to six ounces, and even more. She was very much reduced in strength, her countenance presenting a pale, exsanguinated appearance. Respiration was short, hurried, and somewhat difficult, attended with more or less cough, and expectoration of a greenish-yellow colored matter; appetite poor, and the nutritive functions evidently much impaired. Accompanying these symptoms were chills in

the early part of the day, followed by unnatural heat and a circumscribed flush upon the cheek in the afternoon. These symptoms were attended with exhausting night sweats and rapid emaciation.

Upon examination of the chest, the following physical signs were detected: marked dulness over the superior portion of the left lung, loud, gurgling râle, approaching, in some degree, cavernous respiration, with broncophony; the summit of the right lung slightly dull, respiratory murmur harsh, and expiration prolonged. These symptoms clearly indicated, beyond a doubt, that there were extensive tubercular deposits in the left lung, in a state of softening or suppuration, and that the top of the right lung was beginning to suffer from tubercular exudations, yet in their incipient or formative stage.

This young lady had been under the care of a medical gentleman of talent and much practical experience, yet her symptoms only seemed to be aggravated rather than relieved; and as she was constantly growing weaker, a change in the plan of treatment was decided upon.

She was directed to inhale an alcoholic vapor, combined with oleum terebinthinæ, oil cubebs, chloric ether, gum camphor, nitro-muriatic acid, balsam fir, and essential oil of bitter almonds. As usual, a rigid observance of the ordinary physical measures — air, exercise, and diet — were enforced.

These directions were faithfully observed. It became necessary, occasionally, to suspend the inhalations for a day or two; but they were always resumed with increased

benefit. A few weeks subsequently, I learned from the patient that she had not long to wait for an improvement in her symptoms. Though the cough continued, there was a very marked change in her general health and strength. I urged upon her the importance of daily increasing the amount of exercise, as she regained her strength, to live upon the most nutritious diet, to make use of some stimulant adapted to her condition, with the addition of the iodide of iron, to be taken internally, in the form of a sirup. By keeping up a faithful correspondence with the patient during the summer, I was constantly apprised of every change in the symptoms, and the progress of the case. It will be unnecessary to give, in detail, all the successive steps her improvement presented. Suffice it to remark, that in about three months from the time she came under my care, she called on me at my office, with greatly improved health and strength; the mucous and gurgling râles having disappeared, and only a slight dulness, on percussion, remaining. The trifling degree of cough and expectoration still remaining has gradually diminished during the winter, and, without any relapse of the former symptoms, the patient has been steadily advancing towards a full and complete restoration to health; and I have no doubt the ulcerous excavations have healed, and cicatrization has taken place.

CASE XX. — *Gangrene, or Sloughing Ulceration of the Right Lung.*

I was consulted in behalf of S. L. B., aged 38, of Salem, Massachusetts.

This gentleman was formerly engaged as a conductor of one of the principal railroads in New England, and had led a very active business life. In consequence of his feeble state of health, he was unable to come to Boston and consult me personally. But by the aid of a friend, familiar with the history and progress of his symptoms, I was enabled to gain a tolerably correct and accurate statement of the case. The physical powers of the system were extremely prostrated, so that he was unable to take any exercise, and, indeed, was scarcely able to leave his room. His cough was very distressing, and expectoration profuse, amounting to nearly a pint of offensive purulent matter, mixed with blood, in twenty-four hours. Night sweats were copious, with little or no rest.

From this description of the case, the patient was at once put upon the use of an alcoholic vapor, composed of creosote, nitro-muriatic acid, chloric ether, Tolu, oil cubebs, gum camphor, and naphtha. It was found that this preparation could only be inhaled very sparingly during the first week; but by inhaling a few minutes at a time, and repeating the operation several times a day, before the termination of the second week he was enabled

to inhale freely from three to four times a day, with marked benefit, and a decided improvement in his cough, and the character and quantity of the matter expectorated. This improvement was manifest to all, and continued daily; so that, in the comparatively short space of two months, the patient had sufficiently recovered his health and strength to enable him to come to Boston and visit me at my office. I found that his expectoration had diminished to nearly one quarter, the night sweats had entirely ceased, and he could enjoy a comfortable night's rest. And what was more remarkable, he had gained twenty pounds in weight. I availed myself of this first opportunity, and made a careful examination of his chest. A cavity of considerable size was found in the upper third of the right lung; respiration was attended with a hoarse, blowing sound, distinct mucous and gurgling râles, with prolonged expiration. The sounds elicited by auscultation and percussion, over the left lung, were mostly healthy. It was quite evident to my mind, from this examination, that the cavity in the lung was contracting, and from the changes which must necessarily take place during the healing process, as well as from the redundancy of blood consequent upon the improvement of his general health, there was great reason to be apprehensive of an attack of hæmoptysis.

Some time during the month of August following, our fears were realized, and the patient bled nearly two quarts during a period of two or three weeks. This attack, as might be expected, prostrated him very much

indeed ; but with good care and proper attention he slowly rallied, gradually regaining his former strength. From that time his improvement has been steadily advancing, though he still has some cough and expectoration. I think there does not remain a shadow of doubt, that, with good care and a faithful use of inhalation, he will be fully restored, and regain his former health and vigor.

*Remarks.* — The results of this wonderful and exceedingly interesting case, under divine blessing, are to be attributed solely to the use of inhaled remedies. The best medical skill had been sought, the usual means faithfully tried ; yet the disease seemed to be going on from bad to worse daily, until at last the case was pronounced hopeless, and all further means for recovery abandoned.

This gentleman's case truly illustrates, in the most convincing and satisfactory manner, the positive efficacy and value of direct applications, by means of inhalation, to ulcerous excavations, or cavities in the lungs. The fetid and disagreeable odor had been extremely offensive for a long period, in despite of all the remedies used ; yet, under the direct action and influence of inhaled remedies, it entirely disappeared in a very few days, and a healthy action in the diseased parts was speedily instituted. It may be remarked, that I have confined my illustrations of treatment mostly to cases well marked, and far advanced in disease. The facts stand out in bold relief, and, it must be admitted, hold out to us great

encouragement in the future management of this formidable malady.

CASE XXI. — *Asthma.*

E. A. P., residing at North Bridgewater, Massachusetts, consulted me personally at my office, September 17, 1856. He had been almost a constant sufferer from that dreadful disease, asthma, for some eight or ten years.

The recurrences of the paroxysms were becoming more and more frequent; cough was incessant, attended with a thick, glutinous, and dark-colored expectoration. His general health and strength were evidently giving way, under the influences of long-continued and protracted disease. The countenance presented a sallow, dingy appearance, bearing strong marks of intense suffering and anxiety. Loud mucous râles were discernible, accompanied with a peculiar hissing or wheezing noise. The respiratory murmur was absent over the whole surface of the chest; but no evidences of tubercular disease, such as pectoriloquy, cavernous respiration, &c., could be detected. The patient was subjected to the following simple plan of treatment: warm inhalations, composed of conium, lactuca, ipecacuanha, balsam Tolu, and chloric ether, to be inhaled at a temperature of about 150 degrees. A bilious corrective, with some simple bitter infusions, to regulate and improve the functions of the stomach and digestive organs, were also prescribed. These measures afforded prompt and immediate relief.

The paroxysms became shorter and less frequent; the morbid character of the expectoration was gradually converted into a healthy mucus; while the cough, difficulty of breathing, and oppression of the chest, rapidly disappeared. There has been, also, a marked improvement in his constitutional vigor, and he is now able to exercise freely—to walk at a rapid pace, with very little apparent inconvenience or fatigue.

Though he has been exposed to the various atmospheric changes of the most trying and difficult season of the year, he has had no return of his former paroxysms, except occasionally a slight sense of oppression, or tightness across the chest, which has always been speedily removed by a few inhalations.

Indeed, such has been the great change and improvement in this patient's condition, that he seems to have commenced life anew. I have had many cases of this kind during the past few years, where a similar plan of treatment proved equally successful.

#### CASE XXII.—*Consumption.*

Mrs. J. H. P., a middle-aged lady, living in Salem, Massachusetts, called on me February 13, 1856. She was very much emaciated, reduced in strength, complained of pain and soreness of the chest, accompanied with a violent cough and profuse expectoration, occasionally tinged with blood. She suffered much from chills and fever during the day, attended with exhausting

and disagreeable night sweats. Her appetite was capricious, and from the impaired condition of the digestive and assimilative functions it was evident what food she did partake of did her but little good. By the advice of her attendant physician, she had made use of cod liver oil and numerous other remedies; and, as there was no improvement in her symptoms, she was induced, by the recommendation of a former patient, to place herself under my care. On examination of the chest there were detected, very distinctly, mucous and gurgling râles, pectoriloquy, with metallic ringing over the superior portion of the right lung. Over the apex of the left lung there was dulness on percussion, and the respiratory murmur feeble and indistinct. As the patient had been confined mostly to her room, and was afraid to take the air, she was at once directed to go into the air freely, to discontinue the use of all medicaments by the stomach, and adopt a generous and nutritious diet; the use of beefsteak and London porter not to be omitted.

The medical treatment consisted of a simple alcoholic vapor, creosote, nitro-muriatic acid, balsam fir, gum camphor, chloric ether, benzoic acid, and naphtha. These measures were pursued with the most decidedly beneficial results. A marked improvement took place in her general health and appearance. At the end of four weeks a slight change was made in the prescription, by suspending the use of the creosote and nitro-muriatic acid, and substituting tannic acid and essential oil of almonds.

These remedies being continued a few weeks longer, the patient declared herself quite well, and unwilling to undergo any further treatment.

CASE XXIII.—*Consumption.*

[COMMUNICATION.]

The following communication was first published in the Boston Journal, and subsequently in the Traveller, with the subjoined prefatory remarks:—

We quote from the Boston Journal the following interesting communication; and coming from one of our most intelligent and respectable citizens, we regard it worthy of the highest confidence, and feel assured it will be read with interest by a very large class of our readers, especially such as are suffering from consumption, or any diseases of the air passages. — *Boston Traveller.*

BOSTON, *November 20, 1856.*

To the Editor of the Boston Journal. — Sir: Some months since, while suffering from a chronic affection of the throat and lungs, my attention was arrested on perusing several articles, published by Dr. Dillenback, on the subject of inhalation. I was so favorably impressed with the force of his reasoning, that I immediately consulted him in my own case.

My health first began to fail about five years ago, and since which I may say I have been an invalid most of the time, though I have been at different times under the care of able and experienced physicians, and have made

use of all the various means usually recommended, without obtaining more than a temporary relief.

My disease first seemed to be wholly confined to my head and throat; and I had my throat sponged with nitrate of silver from time to time, for about four months; still my symptoms continued to grow worse, until finally the irritation and disease of my throat extended down to my lungs.

At this stage of the disease, about three years since, I was taken with bleeding at my lungs, which continued at intervals for several days. My usual weight was one hundred and fifty-five pounds, but was gradually reduced to about one hundred and twenty pounds. My cough increased; my expectoration, which was light colored and mucous, now became more copious, assuming a thick, greenish-yellow appearance, and not unfrequently streaked with blood.

I was advised to take cod liver oil, and took large quantities of this article, with no better effect, my disease steadily progressing. I finally gave up all, discontinued my business, and made up my mind that there was no help for me, and that I must shortly die. My friends also gave up the idea that I should ever be better.

Under these circumstances, I was induced to make a trial of inhalation; and I am happy in being able to state that from the time I commenced this mode of treatment, my symptoms have been gradually improving. I have gained flesh and strength, until I have now nearly recovered my former weight; and at the present time I consider

my lungs perfectly sound and free from disease, and can perform as much exercise as ever without fatigue ; and it is but justice to say that I owe my improved health, yea, my life itself, to the use of inhaled remedies, as employed by Dr. Dillenback, of No. 8 Cambridge Street, this city.

G. W. P.

CASE XXIV.—*Pulmonary Consumption; extensive Softening and Ulceration of the Left Lung, with repeated Attacks of Hemorrhage.*

[COMMUNICATION.]

ALEXANDRIA BAY, NEW YORK, *January 16, 1856.*

Dr. Dillenback. Dear Sir: It is a source of pleasure no language can describe, to inform you of my present improved state of health, and the great benefits I have derived from your mode of treatment. About the middle of last August I was taken violently ill with bleeding at my lungs, with severe pain in my side, causing great prostration of my entire system; brought on, as I supposed, by over-exertion while engaged in my harvesting. I suffered very much from cold chills and night sweats. My rest was very much disturbed during the night by frequent and violent fits of coughing. I raised large quantities of thick, yellowish, bloody matter; at other times continued to raise clear, fresh blood from my lungs. My breath and the matter I raised was very offensive, so that it almost entirely destroyed my appetite. I tried all the remedies usually prescribed in such

cases, as well as many others that were from time to time recommended, but all to no purpose.

I continued to grow weaker, losing my flesh and strength, and finally, as a last resort, came to see you. By your advice I commenced inhaling medicated vapors and other treatment as you directed, and so rapid was my improvement from the beginning, I am rejoiced to say, that in three weeks from the time I commenced your treatment, I seemed to be as well as ever. The cough had left me; could sleep well at night; appetite was good, and was able to perform a good day's work—my occupation being that of a farmer.

In the month of December I worked very hard, lifted heavily, and strained my lungs, which brought on some cough, and to some extent a return of my former difficulties. But this time I knew what to do, and at once resorted to my inhaler. In a few days I was better; I can say it relieved me at once; my cough and other unpleasant symptoms having again mostly disappeared, I feel confident, by following your directions, my health and strength will be fully restored.

With many thanks for your kindness, I remain,

Yours, &c.,

J. M.

CASE XXV. — *Consumption.*

[COMMUNICATION.]

BOSTON, *February 25, 1857.*

To the Editor of the Boston Journal. — Dear Sir: Allow me, through the columns of your valuable paper, to add one to the already numerous testimonials relating to the efficacy of medicated inhalations, as administered by Dr. H. P. Dillenback, of No. 8 Cambridge Street, Boston, for the treatment of throat and lung diseases. Early in the month of April, 1856, my physician pronounced my lungs slightly diseased. I had a severe cough, which, however, mostly disappeared during the summer months.

In September I took a severe cold, which seated directly upon my lungs, attended with diarrhœa and many other unpleasant symptoms, strongly indicating the fearful character of my disease — consumption. My restoration to health was now considered by physicians and friends as extremely doubtful. All the usual remedies prescribed by physicians I had faithfully tried, but without any apparent benefit. My symptoms continued to grow worse daily; my cough and expectoration increased until I raised a half pint of matter in twenty-four hours. My lungs were so sore that I could only lie on my back. My throat was also very much inflamed, and not unfrequently I was so hoarse, that it was with the utmost difficulty I could articulate a word.

I consulted Dr. Dillenback on the 28th of November

last. He made a careful examination of my lungs, and by his opinion my worst suspicions were confirmed.

In two weeks after I commenced his treatment, I could lie on either side, and rest comfortably all night. My cough had almost entirely left me; the expectoration was proportionally diminished, and my appetite improved. At the end of a month I had gained six pounds in weight, and could exercise freely in the open air without exhaustion or fatigue—my cough, all soreness and difficulty about my lungs, having entirely disappeared. Now the general remark is, “How well you are looking! What have you been doing?” I have faithfully and systematically followed Dr. Dillenback’s treatment about two months, and am able at the present time to attend to my business, feeling as well as ever I did, being in full possession of my usual health and strength. I have induced three or four persons of my acquaintance to make a trial of his treatment, and I am happy to say that they are all improving, and receiving great benefit. I would cheerfully recommend all who are afflicted with diseases of the throat or lungs, to call upon Dr. Dillenback at once, and make a trial of inhalation.

Yours, truly,

A. L. A.,

Importer and manufacturer of French buhr mill stones,  
East Boston, Massachusetts.

*Remarks.*—The increased vigor, the animated expression of the countenance, the ease and perfect freedom of respiration, as well as the speedy removal of all pain and

soreness about the chest, which were experienced by this patient in a few days, under this treatment, was remarked with surprise, if not astonishment, by all who knew him ; inasmuch as his former medical adviser had pronounced his case hopeless, giving it as his opinion that he could not, in all probability, survive three months.

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*Interesting Communication, with Observations on the Practice of Inhalation, and Cases illustrating its successful Results.*

In addition to the foregoing well-attested facts in my own practice, I have the satisfaction of laying before the public the following communication and report of cases treated in accordance with my method, by a medical gentleman of West Troy, New York.

WEST TROY, *December 3, 1855.*

Dr. Dillenback. Dear Sir : I feel myself under many obligations for the knowledge you have imparted to me concerning your treatment of consumption by the inhalation of medicated vapors.

When you first called my attention to the subject, I must confess I had but little confidence in this mode of treatment. But after a thorough and careful investigation of the principles on which this practice is based, I found it was strictly in accordance with science and

reason, and to my mind a more rational system for the treatment of chronic pulmonary diseases than any hitherto presented to the public. The success which has attended this mode of treatment has certainly exceeded my most sanguine expectations. I have had an opportunity of testing your plan of inhalation in several very important cases in my own practice, and thus far I am most happy to say, I have succeeded in curing and otherwise affording permanent relief in every case I have treated upon this plan, and those too who were regarded hopeless under the ordinary modes of practice.

To give you a more clear idea of the success I have met with in treating consumption by inhalation, I will relate the history of a few cases that have occurred in the immediate vicinity of East and West Troy, New York.

*Case 1st.* — C. M., aged 32 years, whose health commenced to decline in April last. He suffered much from shortness of breath, on the slightest exertion, with more or less difficulty of breathing, and attended with cough and expectoration; these symptoms gradually growing worse from day to day, until the month of August, when he had five attacks of hemorrhage, or bleeding from the lungs, bleeding about a pint at each time. At this period I was called to his aid. On examination, I found that there was extensive disease of the mucous membrane lining the bronchial tubes, the bronchial tubes being also much enlarged. On still further examination, I discovered an ulcerous cavity of the

superior lobe of the left lung. The patient was much emaciated, with pains and soreness in his left side, accompanied with an incessant cough, the expectoration being profuse, of a greenish-yellow color and offensive odor. Believing there was no help for him, the most eminent physicians having pronounced the case incurable, I was induced, under these circumstances, to try the effects of medicated vapors by inhalation. I first put him upon the use of an alterative vapor, according to your directions, the effect of which was truly surprising. His difficulty of breathing was almost immediately relieved, and under the influence of this vapor, alternating occasionally with a more astringent vapor, his cough and expectoration gradually subsided, and as a natural result his appetite was restored, and his general health rapidly improved; and in the space of twelve weeks he gained eleven pounds in weight, and is now attending to his duties, his occupation being that of captain of a vessel.

*Case 2d.* — H. D., living in Ferry Street, Troy, New York, is 36 years of age. I was called to see this gentleman some time during the latter part of July or first of August, and found on examination that his case was one of chronic bronchitis; the disease having so far progressed as to produce extensive ulceration of the mucous membrane, attended with a distressing cough and debilitating night sweats, followed by a profuse expectoration on rising in the morning. He had also a deep, hoarse, sepulchral sound of the voice. He had

tried all the usual remedies without any amendment of his symptoms. His family were much alarmed, and manifested no small degree of anxiety in regard to his case.

And here allow me to say, if I had had no remedy to lean upon, differing from the ordinary routine of medicines, administered by the stomach, I should have been under the painful necessity of announcing his case incurable. But so far from this, I assured his family that in four weeks they would see a great change in his symptoms for the better; this was not only true, but in five weeks from that time, I am happy to say, to the astonishment of all his friends and acquaintances, he went into his shop and performed his accustomed day's work — his business being that of a tin smith.

*Case 3d.* — Mrs. J. M., of West Troy, New York, aged 40. This lady's health had been on the decline for about two years, with occasional attacks of hemorrhage or bleeding from the lungs.

I was called to see her in the month of December last, and on examination found there were tubercles of the superior lobe of the left lung, that the process of softening and suppuration was going on, and in two days' time was followed by a discharge of blood, matter, and pus from the lungs, leaving behind an ulcerous cavity.

The patient was very much distressed for breath, accompanied with pain and soreness of the left side, and severe attacks of coughing; and after the breaking and discharging of the ulcers, the expectoration was profuse,

accompanied by debilitating night sweats, with chills in the forenoon and fever in the afternoon. There was much emaciation, loss of strength, and no appetite.

After a few days' use of an alterative vapor, her symptoms improved. But at the end of four weeks, another ulcer was discharged, the result of a previous tubercular deposit; but at this time it affected her general health less, which was wholly to be attributed to the use of medicated inhalation, as she could use no medicine of any kind by the stomach.

She continued to persevere with inhalation, believing it to be the only remedy whereby she could be benefited, as she had seen others of her family, one after another, perish, although every remedy had been resorted to, usually administered by the stomach.

Encouraged by the relief inhalation afforded her, she persevered through the months of February, March, and April in its use, with decided benefit; her unfavorable symptoms gradually subsided, appetite improved, cough and expectoration became less; and when May came, she was able to walk and ride in the open air; and with a constant use of the inhaler up to this time, she has been enabled to walk a mile with ease, and is now enjoying a comfortable degree of health.

I feel assured that your method of inhalation is the only reliable treatment for chronic diseases of the throat and lungs, and will, when early and skilfully administered, restore at least a large share of those afflicted with pulmonary diseases.

I have other cases of importance under treatment, the result of which I will inform you at some future period. A few more words and I have done.

I have long been an unwilling witness to the destructive ravages of that fell destroyer, pulmonary consumption, and in common with the great mass of our profession have been deeply and painfully impressed with the humiliating conviction of the utter uselessness and inefficiency of all the usual means hitherto adopted for the arrest and final cure of this fearfully increasing and fatal malady. Sir, I deem the position you occupy in reference to this reform as far above the range of little minds; and so long as your theory is supported by the best medical reasoning and sound philosophy, and above all by successful results, the shafts of envy and malice must fall powerless at your feet.

Hoping that you may long live to relieve suffering humanity,

I am, dear Sir, very respectfully,

Your obedient servant,

S. P. U., M. D.

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In all ages the human intellect has been compelled to grope in darkness, and to witness the destruction of thousands of human lives before it has been permitted to enjoy the light of truth. Why the pernicious system of drugging the stomach for the cure of consumption should have been practised so long is truly astonishing. The

signs of the times, I think, clearly indicate that a new era is about to dawn upon the history of the human race; new not only in politics, in morals, and social economy, but in its application to the healing art.

What is true of the powers of electricity, and of the various important uses to which it has been applied, may be equally true concerning other powers of nature. Who dare say that the very upas tree shall not yet be made to furnish an antidote for its own deadly poison; the noxious vapors escaping from the putrid marsh turned into a channel that would compel them to minister to the health and life they are now so powerful to destroy; or that the practice of inhalation, when thoroughly understood by the great mass of the medical profession, shall not be as successful in the cure of consumption and kindred diseases as Peruvian bark and quinine in the cure of ague and fever?

## DESCRIPTION OF THE ENGRAVINGS.

### PLATE I.

This plate exhibits the lungs and their various appendages in a state of health. Figure 1, The windpipe. 2, The right lung. 3, The heart. 4, The left lung, with a portion cut away, showing the air pipes and air cells.

### PLATE II.

This plate represents a section of the lungs in the first stage of tubercular disease, while the tubercular deposits are hard and small in size, and before any portion of the lungs have been broken down, or any excavation or cavity has been formed.

Tubercular deposits, when first formed, exist in small specks or points, of a grayish, semi-transparent appearance, as may be seen in the plate.

### PLATE III.

This plate exhibits the second stage of tubercular disease. The tubercles, as may be seen, are much larger than in the first stage. The grayish, transparent matter now becomes opaque, and is converted into a yellow color. In this state the tubercles have softened, and may be broken down between the fingers like a piece of cheese. This stage of the disease is often very rapid in its progress. At other times, in the absence of any exciting cause, it is more slow and gradual, and the patient may continue months without experiencing much change. In this condition of the lungs the obstruction is greater than in the former, and the breathing of course is rendered more difficult.

### PLATE IV.

In this plate are represented the lungs in a state of ulceration, when a considerable portion of the pulmonary tissue is broken down, and an ulcerous excavation or cavern has been formed. This constitutes what is called the third and last stage of consumption, and is usually attended with profuse expectoration, hectic fever, night sweats, and not unfrequently diarrhœa supervenes, under which the patient rapidly sinks.

### PLATE V.

Represents the tonsil instrument used by the author for the excision of enlarged tonsils.

(A) Represents the main body of the instrument, which consists of two separate plates, grooved out upon their internal surface so as to allow the spear-pointed blade (B) to slide through, when these plates are fitted together. In performing this operation, which is perfectly simple and safe, the blade is drawn back at its posterior extremity (C), the enlarged gland is passed through the opening in the instrument, represented by (D), when it is seized by the claws (E) (E), and by slightly depressing their handles the claws are elevated; and thus the tonsil is drawn through and retained, while the blade is in the same moment pushed through, by applying the thumb at the point (C), transfixing at once the entire gland. (F) represents a view of the handle, which may be applied or removed by means of a thumb screw, at pleasure.

#### PLATE VI.

This plate represents the double stethoscope; an ingeniously contrived instrument, which I am in the habit of using, and which I think possesses superior advantages over all others, adapted as it is to both ears at the same time. All foreign sounds by this arrangement being cut off, the respiratory murmur and the various abnormal sounds of the chest can be heard much more distinctly than by the common stethoscope, where one ear only is applied to the instrument. For examining the larynx, the trachea, the axilla, and the regions above and below the clavicle, the smaller funnel (*c*) may be attached instead of the larger, as represented by (*a*) — the smaller being applied with more facility to the parts.

#### PLATE VII.

(A) Represents a pair of curved heavy scissors, for the amputation of a diseased and elongated uvula.

(B) Represents a forceps having long, slender blades, the ends being finely serrated for the purpose of seizing and retaining the uvula, while the excision is performed with the scissors above alluded to.

#### PLATE VIII.

Exhibits a view of the improved showering syringe, as employed by the author in making topical applications to the laryngeal cavity, throat, and nasal passages.

(A) Represents the barrel and piston of the syringe, which may be made of glass or silver, as desired. To this may be attached, by means of a screw, several different silver pipes or tubes, straight, or bent at different angles, according to the uses to which they are to be applied. These tubes are somewhat bulbular at the extremity, pierced with minute holes, through which the fluid may be thrown in a fine shower in every direction in an instant of time.

(B) Represents the tube for the posterior nares.

(C) The laryngeal cavity.

(D) The anterior nares.

PLATE I.

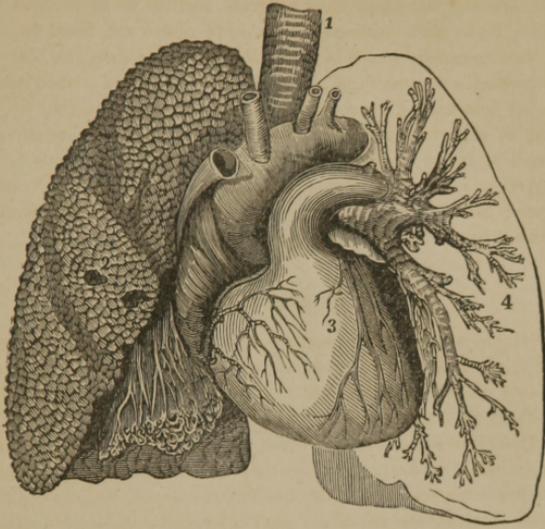


PLATE II.

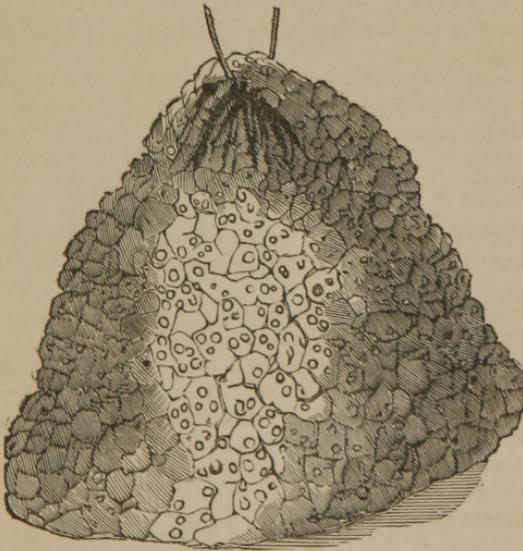
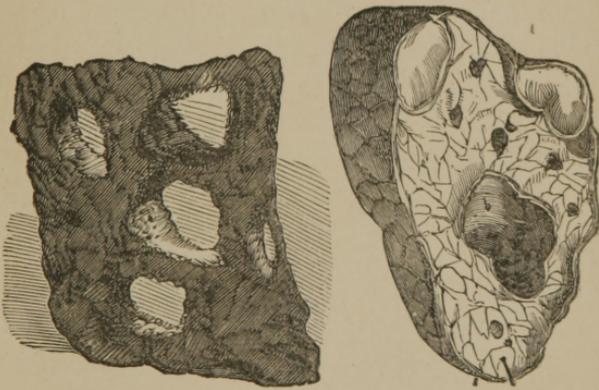




PLATE III.



PLATE IV.



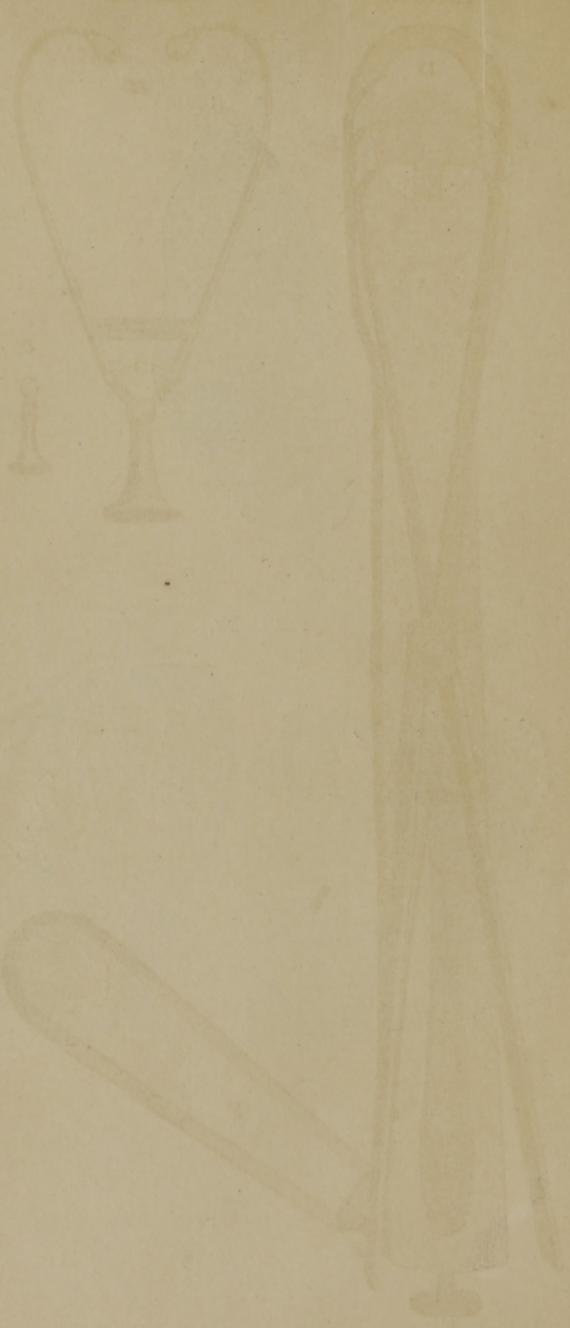


PLATE V.

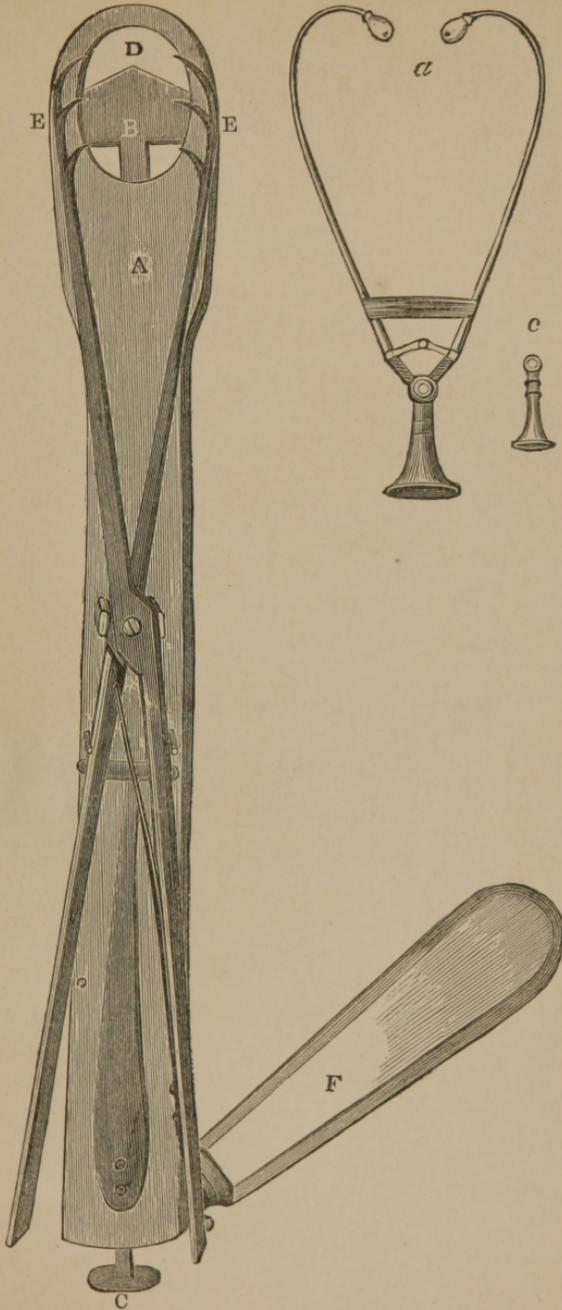


PLATE VI.

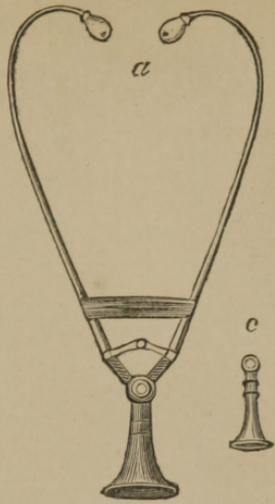




PLATE VII.

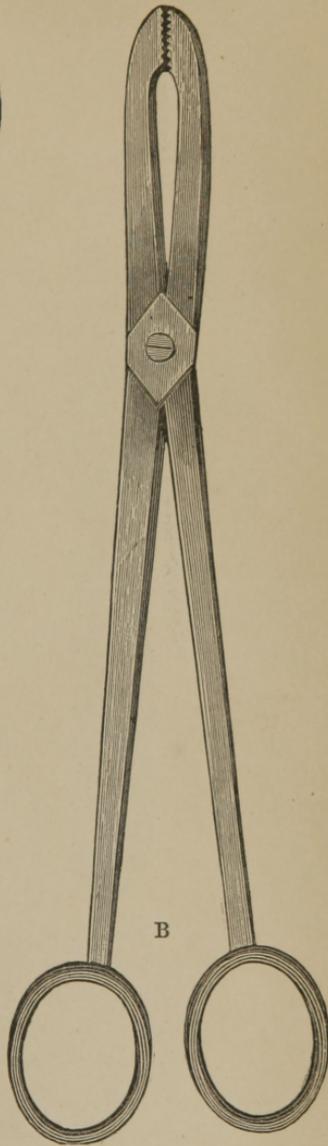
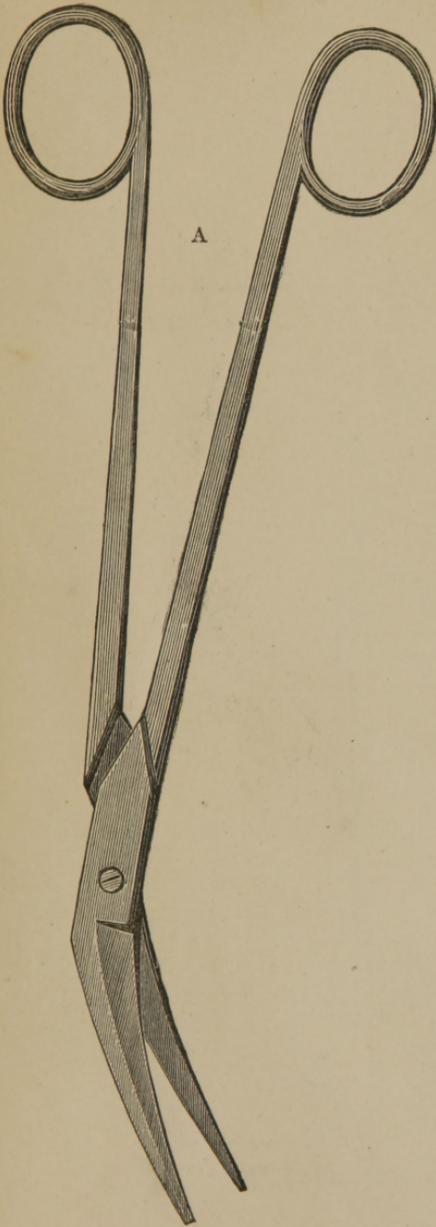
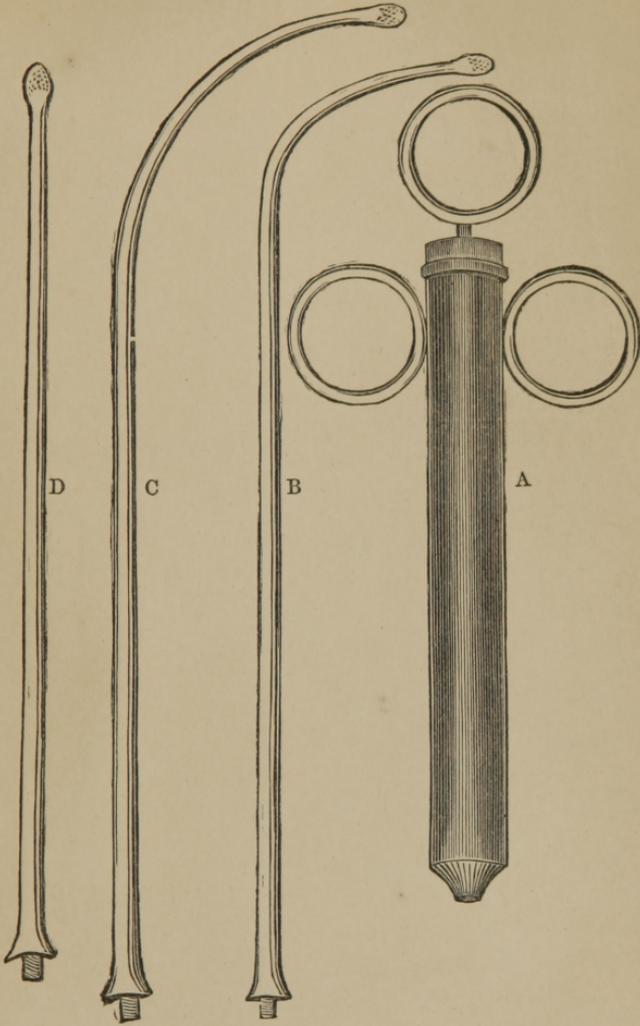




PLATE VIII.



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