

Consumption curable; and the manner in which nature as well as remedial art operates in effecting a healing process in cases of consumption : to which is added a mode of treatment, by which the development of tubercles may be prevented.

Contributors

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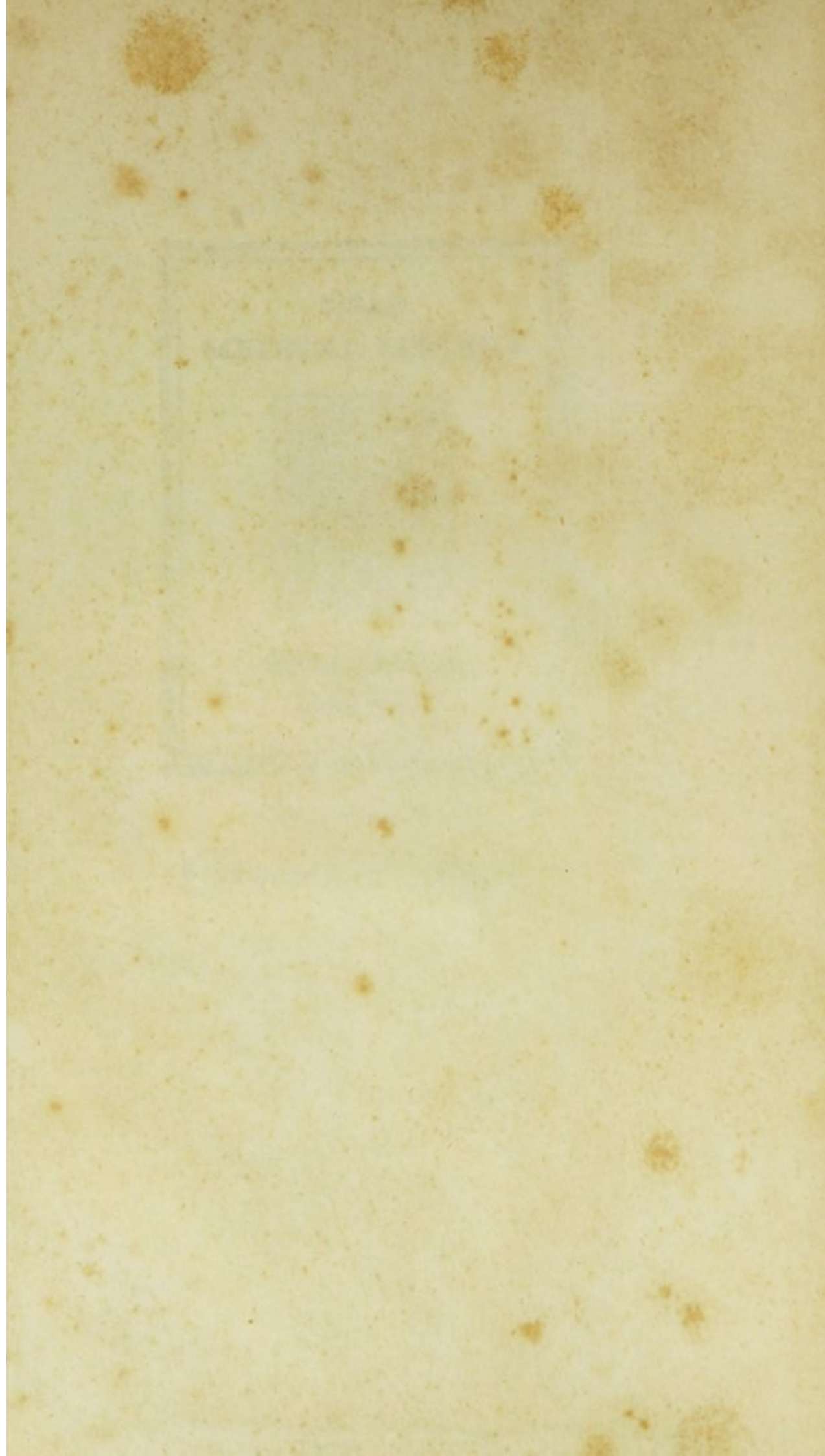


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CONSTITUTION OF THE UNITED STATES

OF 1787

ARTICLE I

SECTION 1

All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

SECTION 2

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

SECTION 3

A Senator shall have seven Years to his full Term, and after such seven Years he shall be eligible for another Term.

SECTION 4

The whole Number of Senators shall be thirty, two from each State and two from the Nation at Large.

SECTION 5

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

For the first Time after the first Meeting of the Congress under this Constitution, the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

SECTION 6

The Senate shall have the sole and exclusive Power of Impeachment.

The House of Representatives shall have the sole and exclusive Power of Impeachment.

SECTION 7

The House of Representatives shall have the sole and exclusive Power of Impeachment.

SECTION 8

The House of Representatives shall have the sole and exclusive Power of Impeachment.

SECTION 9

The House of Representatives shall have the sole and exclusive Power of Impeachment.

SECTION 10



CONSUMPTION CURABLE:

AND THE MANNER IN WHICH

NATURE AS WELL AS REMEDIAL ART

OPERATES IN EFFECTING

A HEALING PROCESS IN CASES OF CONSUMPTION;

EXPLAINED AND ILLUSTRATED BY

NUMEROUS REMARKABLE AND INTERESTING CASES :

TO WHICH IS ADDED

A MODE OF TREATMENT,

BY WHICH

THE DEVELOPMENT OF TUBERCLES MAY BE PREVENTED

IN PERSONS LIABLE THERETO,

FROM HEREDITARY PREDISPOSITION, OR A BAD STATE OF THE SYSTEM
INDUCED BY VARIOUS CAUSES.

“La guérison dans les cas de phthisie pulmonaire où l'organe n'a pas été entièrement envahi, ne présente, ce me semble, aucun caractère d'impossibilité, ni sous le rapport de la nature du mal, ni sous celui de l'organe affecté.”—*LAENNEC, Nouv. Ed., tom. ii, p. 112.*

BY

FRANCIS HOPKINS RAMADGE, M. D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, SENIOR PHYSICIAN TO THE INFIRMARY FOR
ASTHMA, CONSUMPTION, AND OTHER DISEASES OF THE CHEST, ETC., LONDON.

FIRST AMERICAN FROM THE THIRD LONDON EDITION.

WITH AN INTRODUCTION BY THE PUBLISHER,

IN WHICH SEVERAL CASES ARE STATED WHERE THIS PRACTICE HAS PROVED SUCCESSFUL IN
THIS COUNTRY, WITH OTHER CORROBORATIVE TESTIMONY.


NEW-YORK:

PUBLISHED BY J. M. HOWE, 102 GRAND-STREET,

AND TO BE HAD ALSO OF

WILEY & PUTNAM, 161 BROADWAY.

1839.

 This Book, together with the Tube, may be had of J. M. Howe, Dentist, at No. 102 Grand-street, New-York. Mr. Howe will, also, give directions as to the use of the Tube, and any other information in his power connected with this subject. All letters must be post paid.

"Entered according to Act of Congress, in the year 1839, by J. M. Howe, in the Clerk's Office of the District Court of the Southern District of New-York."

INTRODUCTION.

IN presenting the work of Dr. Ramadge to the American public, it may be proper to give some explanation as to the circumstances which have led to its publication. The following letter, which appeared in the *Christian Advocate and Journal*, of March 1, 1839, will throw some light upon the subject.

LETTER TO CONSUMPTIVES.

Messrs. Editors,—A two-fold object induces me to present the following for publication; the one to proclaim the goodness of God in his providential dealings with me in staying the hand of disease and death, and the other the very novel instrumentality by which it has been effected; hoping, by the blessing of God, it may be a means of saving some similarly afflicted. And without entering into any detail of the general state of my health, I would remark that I took a cold in December, 1837, after attempting to preach, which settled in my throat, and finally terminated in chronic bronchitis; and after having had the best medical advice at home for about four months without any benefit, but rapidly getting worse, so that my throat and lungs were considerably affected, and my voice reduced to a whisper, every change of weather affecting me much, I was informed by my medical friends that I had nothing to expect from medicine, and that a sea voyage and change of climate would be the only possible means of alleviating my symptoms. In June last I sailed for Liverpool. The result of the voyage was entire physical prostration; but I still hoped that change of climate would perform for me what the voyage had not. For this purpose I travelled to some extent in England, and consulted three of the most eminent physicians, who recommended similar means to those of the physicians at home. These remedies gave no relief, but together with the humidity and changeableness of the climate and the fatigue of travelling, rather aggravated my disease. I then went into France, hoping for the time being my symptoms would be alleviated; but was again disappointed. And being wearied out, and despairing of any relief from the ordinary means used in such cases, I committed myself entirely to the Lord; being in much doubt whether my health would enable me to reach my home. At Boulogne, on my return, I was obliged to consult another physician; but to no purpose. And when I returned to London, I seemed literally choking to death, and had to take to my room and bed. In this condition I was providentially relieved by a work being put into

my hands, entitled "Consumption Curable," by Dr. Ramadge, the senior physician of the London Lung Hospital. After a cursory reading of the book, I was led to consult the doctor, and was by him encouraged to expect entire recovery. He directed as a principal means—medicine being only auxiliary—a tube to breathe through. I followed his advice, and experienced by its use, in the course of only one or two days, very essential relief. It was the first thing I had found to alleviate my symptoms in the least. It is now five months since I began to use the tube, and my recovery has been gradually progressing. On the first of January last, I resumed my labours as chaplain of the City Hospital, from which I had been laid aside for nearly one year; and what is very remarkable, and speaks volumes for the tube, though I arrived in the city in October last, with the most unfavourable season before me, and have exposed myself to all weathers, (storms not excepted,) and have twice taken severe colds which settled in my bones, I have not once had any cold to settle on my lungs or in the throat; although previous to my using the tube, the slightest unfavourable change affected me most seriously.

The tubes are made of different materials, and are five feet long, and half an inch in diameter, furnished with a mouth-piece, and piece to contract the end to keep the air from rushing in and out too rapidly. The instrument is to be used three times a day for the space of from four to six months, discontinuing its use under certain symptoms.

I would further remark that Dr. Ramadge is a regularly educated physician, and has been for nearly twenty years in the London Lung Infirmary, and for several years past the senior physician. This is a public institution, and has been established, if I mistake not, about one hundred years, and is under the patronage of the nobility and gentry of England. He assured me again and again that the use of the tube would do more to prevent consumption, and restore those who are consumptive, than any other means within his knowledge.

The doctor has written a very able work on the subject, explaining the philosophy of his treatment, in which he shows the great benefit arising from inhalation in preventing consumption, by enlarging the volume of the lungs, and materially altering the shape of the chest; and also curing the disease in its incipient stages, and even after the top of both lungs has been very considerably ulcerated.

So very limited is the knowledge of Dr. Ramadge's work on the treatment of throat complaints and consumption in this country, although on the continent of Europe it has been translated into several languages, and so invaluable, in my humble opinion—for I am quite sure, under God, I owe my life to him—that I consider it an imperative duty I owe to my suffering fellow-men to call their attention to it.

While in London I was several times at the Hospital, and conversed with many of the patients, who all testified to the benefit of the tube ; and since my return home I have recommended it to several, some of whom have found very great benefit. I shall be happy to show the tube, and also to furnish such other information as to the manner of using it, together with some general information on the subject, at my dwelling, No. 102 Grand-street, New-York.

JOHN M. HOWE.

The preceding letter was extensively copied in the city and country papers, and was read with so much interest, being so novel in its character, that many persons called on me soliciting further information, and many from abroad wrote to me ; as answering them consumed much of my time, and subjected me to some expense, and being desirous to spread the information, and to do it more effectually, I abridged Dr. Ramadge's work, and published a thousand copies ; and although it is but six months since its publication, without the aid of notices from the press, the whole are nearly disposed of. It now appears necessary that another edition should be printed ; and so repeatedly has the work been called for by physicians and others, that all doubt is now dispelled as to the publication of the complete work being sustained.

As the principles of practice laid down in this work differ very materially from those of practitioners of our own country in chest diseases, and as I have been successfully treated by the doctor, to whom, under God, I am indebted for the prolonging of my life, (a debt of gratitude I can never repay,) for the benefit of others I deem it incumbent upon me to state a few facts corroborative of this practice, drawn from my own case, and facts obtained from others.

For several years past I had suffered much from indigestion, which deranged the whole system, and produced, finally, disease in the lungs. Previous to sailing for England my symptoms were, the hectic fever, night sweats, cold chills, a slight hacking cough, with some expectoration ; voice reduced to a whisper, and much emaciation of body. I was labouring under most of these symptoms when I came under the care of Dr. R. I was informed that both my lungs were tuberculous, and had long considered my case utterly hopeless, unless God interposed in some extraordinary way to save me. Almost the first question that I proposed to Dr. R. was, with my mouth to his ear, in a whisper, " Doctor, can I yet live, or must I die ?" He replied, " You have come just in time to save your life ; you will recover." " Shall I have my voice ? shall I be able to speak loud ? shall I be able to sing ? shall I be able to preach ?" To all of which he answered, " You will certainly recover your voice so as to speak loud, to sing, and to preach."

"How long, sir, will it probably be ere this takes place?" He replied, "In four or six months you will call yourself quite well, and you will attain a vigour you have not had for years." I replied, "Ah, sir, I am afraid to rely upon you." He answered, with warmth, "I would ensure it by my right arm, were it possible." I then informed him that I had made arrangements to leave England in twenty days, and inquired, whether he wished me to tarry longer. He replied, "You may return by that time." Upon subsequent interviews with him, I made particular inquiries relative to my future place of residence, &c. He directed me to pass the winter at home, and not to change for a warmer climate, which I had previously purposed to do, and, instead of confining myself to a warm room, or to the house, to expose myself to the weather every day, without regard to storms, as occasion might require. Being somewhat skeptical as to the propriety of the advice given, with the doctor's permission and invitation, I visited several times the lung infirmary,* to get what information I could from persons under his care,—to many of whom I proposed the following questions: "What is the nature of your disease?" "Consumption," was the usual reply. "Whose care have you been under previous to coming here for advice?" Some answered one, and some, another; some named one or two hospitals. "Did you get benefitted?" "No." "How long have you been here?" They answered different

* It may be of importance to state, for the information of those who are unacquainted with the standing of Dr. Ramadge, and the institution with which he is connected, that he is a regularly educated physician, and, for nearly twenty years last past, has been physician to the London Lung Infirmary. Through the kindness of a friend, I am enabled to give the following statement, copied from the Royal Calendar, and Court and City Register, for England, Scotland, Ireland, and the Colonies, for the year 1825.

"Infirmary for Asthma, Consumption, and other Diseases of the Lungs, Union-street, Bishopsgate.

President, Duke of Sussex.

Vice Presidents, Marquis of Camden, Marquis of Cholmondeley, Earl of Darnley, Earl of Crawford, Lord Calthorpe, Bishop of Salisbury, Benjamin Shaw, Esq., Thomas C. Marsh, Esq., John Meyer, M. D.

Treasurer, William Heygate, Esq.

Consulting Physician, Isaac Buxton, M. D.

Physician, F. H. Ramadge, M. D.

Apothecary and Surgeon, Mr. Hurkey.

Honorary Secretary, Samuel Amory, Esq.

Assistant Secretary and Collector, Mr. William Eddrup, White-chapel Road.

Housekeeper, Mrs. Elizabeth Fuller."

From the above, it appears that Dr. R., as long ago as 1825, was physician to the institution, and that the Infirmary was sustained by some of the most distinguished men in the kingdom—and I am enabled to state, from my own personal knowledge, that the institution is still sustained by individuals of the highest rank, and that Dr. R. is now, and has been for several years past, the senior physician.

lengths of time. "Have you got benefit here?" "I have," was the usual reply. "Under whose care are you in this place?" "Dr. Ramadge's." "Do you consider Dr. Ramadge a skilful physician?" "I do, most certainly." One replied, "Sir, you could not have your life in safer hands."

I also was favoured, upon more than one occasion, by being present at the examination of some thirty, or perhaps fifty persons, who applied for advice. One instance, which made a lasting impression on my mind, was that of a young woman, of very interesting appearance, dressed in deep mourning. After an examination of her chest and symptoms she inquired his opinion. With great kindness, and sympathy of feeling, he informed her, that all means would avail but little; that in all human probability she would not recover. The silent tear trickled down her face; it seemed as though her only hope was cut off. But, added he, you must use the means, and try. This frankness and plainness of dealing inspired me with much confidence. How much better, thought I, for a physician to be honest; to deal plainly with his patients. Why should a patient, labouring under a fatal disease, be deceived upon a subject of so much importance. How much better would it be to discover to him, with sympathy and kindness, his real situation, and thus afford him time to adjust his temporal affairs, and make some preparation for his entrance upon the untried realities of another world, than to keep him in suspense, or in the expectation of recovery, until the last moments of life.

The home-bound voyage was much more comfortably made than the outward one. I did not suffer the one-tenth part by sea-sickness, owing, in part, to using the tube for a few minutes daily in the cabin, which produced favourable results upon the stomach, &c., by increasing the action of the diaphragm.

It is now a year since I first came under Dr. R.'s care, and I have realized the benefit of his advice, and the fulfilment of his predictions. My voice has returned so that I can sing, for a short time, at its highest pitch, and speak loud in public for half an hour, without injury. My digestion is better than it has been for years, so that I am enabled to eat whatever is set before me, with the exception of hot breads, &c. But what is of still greater importance is, that the shape of my chest is very astonishingly improved and enlarged. About six years since the measurement of my chest, close under the arms, was thirty-two inches; but, for five years following, there was a gradual diminution, so that for three years previous to my getting the tube, my measurement was thirty inches; making a decrease in the size of two inches. Since getting the tube I have increased in size two and a half inches, making my measurement now thirty-two and a half inches. But the alteration in the conformation of my chest is truly wonderful.

The collar bones were very prominent, and the pit of the neck so sunken, and the chest so drawn together, that I was afraid to see myself in the glass. Now my chest has recovered a rounder and plumper appearance, and my neck has filled out, so that the conformation is better than it has been for years; and my whole system is generally improved; the principal cause of which I attribute to the instructions received from Dr. R.

I would also remark, that previous to my getting the tube every change of weather, even the slightest, affected me much, notwithstanding the extra clothing put on, and care as to exposure; but since using the tube, I have taken off all extra clothing, without even wearing flannels, except in the winter, exposing myself to all weathers every day through the whole of the last winter; and up to the present time, (storms not excepted,) without once taking cold in my lungs. So great has been the benefit received that I am encouraged to expect a much greater strength of lungs than I have had for years, and perfect recovery.

It has however been remarked by some, that my lungs never could have been tuberculous, and that consumption could not have been fairly seated, or I should not have recovered. This I grant is the conclusion to which one must arrive from all the theories and practice in common use. As to my lungs being diseased, and of their being tuberculous, I could name several highly respectable physicians of this city who would testify to the fact. Previous to my going abroad four physicians, three of them of eminence, informed me that my right lung was diseased, and that no medical means could reach my case, and recommended me a voyage and travelling. One of them, after my sailing, informed some of my friends that I would never return. And when, in the good providence of God, I had the first interview with Dr. Ramadge, after an examination he informed me that both my lungs were tuberculous, but that I should certainly recover. I wrote home to a friend that Dr. R. stated that my lungs were tuberculous; this friend informed one of the physicians. He replied, "I knew his lungs were tuberculous previous to his leaving home." And since my return, two other distinguished physicians of this city, who had heard of my case, called to see me, requesting an examination of my chest; for, said they, there is much that passes for consumption that is not. I gratified them, and they pronounced both lungs tuberculed; and one remarked that the upper lobe of the right lung had passed to hepatization. The other informed me that he had no more doubt of the diseased state of the right lung than though he could see it. Besides the opinions of physicians, my symptoms and appearance would justify the belief that I was fair lyin consumption, and many of my friends were

of the same opinion. Dr. Alder, the Wesleyan delegate to Canada, now in this city, with whom I had the pleasure of a few short interviews in London and in Paris, informed me this day that he considered me so much indisposed that he doubted whether I would survive the home voyage.

I should not be thus particular on this point was I not fully aware that some have asserted since my great improvement, that I never had the disease. My own opinion is, but for the tube and Dr. R. as the means, with the divine blessing, ere this the work of life had been done, and I should have been taken to my rest.

But my own case is not a solitary one. I have the testimony of persons of standing and of undoubted authority whom I have recommended to use similar means. As an evidence of the great benefit of inhalation, a respectable physician of this city informed me that one of his patients had increased in size two inches and a half by the use of the tube, in about two months, and that another of his patients had received very great benefit; he has recommended more than a dozen to use it, some for the preventing and others for the cure of disease.

Dr. WM. H. HUGGINS, of West Hartland, Conn., writes me thus: "I have felt much interest in relation to the success of Dr. Ramadge's treatment in cases of phthisis pulmonalis, or pulmonary consumption,—but fearful that this like other modes of treating that insidious disease might prove fruitless, I have delayed expressing my opinion until confirmed by observation. I am ready to say, that the practice has more than answered my expectations." This gentleman has experimented in six or seven cases.

JOHN L. SULLIVAN, M. D., of New-Haven, after having perused Dr. R's. abridged work, wrote me thus, in a private letter:—"Permit me in thus commencing my acquaintance with you, and which I shall hope to do personally when I first come to New-York, to congratulate you on the good providence of God, who not only sent you abroad in suffering to find the remedy, but made you the instrument of the introduction into your country of the means of restoring many to health. We and the public have much reason to be thankful to the merciful and beneficent Disposer of events for this method.

"The invention is philosophical and consistent. The discovery was arrived at by the cautious gradations of observation and experiment to establish its principles, and it claims no more than reason warrants." This gentleman has fully adopted Dr. R.'s practice of inhalation in connection with his own, and has published a pamphlet recommending it.

The Rev. H. G. L——, of New-Haven, writes me thus:—"It gives me pleasure to say that my wife appears to be receiving much

benefit from the use of your tube. I cannot but hope, if she improves as she has done, she will soon be as well as formerly."

The Rev. D. B. RANDALL, a member of the Methodist Episcopal Annual Conference, in Maine, who had used the tube about six or eight weeks, was so much benefited that he rose in the Conference, in the presence of about two hundred ministers, to express his gratitude to God, and to recommend it to others.*

The Rev. A. D. MERRILL, of Providence, Rhode Island, has taken so much interest in spreading the information that he has sent for a dozen and half of the tubes.

The Rev. EZRA WITHEY, late of Maine, has written me a very interesting account of the benefit he received from the use of the tube, after having been afflicted with a pulmonary disease for two years, during which time he had applied to various physicians of reputation without any relief. He had been so afflicted by the changes of the weather previous to using the tube, that he was obliged for three months to confine himself within doors; but even then he was greatly affected. When so far relieved as to expose himself to the air, he only ventured out during a few hours in the middle of the day; but not a fortnight had elapsed from the time he got the tube till he was enabled to go out mornings and evenings, in damp and rainy weather as well as in the dry; and ere he left the city I listened to him twice from the sacred desk, preaching with much energy and clearness of voice. He soon returned to New-London, where he is preaching the gospel; and he writes me that some of his friends state that his "voice in singing is better than ever."

The Rev. Mr. Garrett, of Lower Canada, writes me thus:—

New-York, July 29, 1839.

DEAR SIR,—Last June I arrived in this city from Hatley, Lower Canada. For several months previous I was incapable of discharging the ordinary duties of an itinerant preacher, in consequence of a severe cold I received during last winter, producing almost constant pain in my chest, from right to left, great pain and difficulty in speaking, together with frequent discharges of blood from my mouth.

I had been recommended by my medical friends to abstain *in toto* from public speaking, and, if possible, to take a sea voyage.

In attending to these directions, I came from the province of Lower Canada to this city, and, shortly after my arrival, was introduced to you by the kindness of my friend, Mr. S. Dando. Having carefully perused your pamphlet entitled "Consumption Curable," I determined

* He has since recommended it to others, and writes me that "it has given general satisfaction."

to procure a tube from you, and try its effects upon myself. I commenced by regularly breathing backward and forward, through the tube, according to your directions, and, through divine mercy, have, since then, been constantly increasing in inward strength; so much so, that yesterday I was enabled to comply with an invitation from my excellent friend, the Rev. Mr. Trippet, Wesleyan minister of Seventh-street chapel, to officiate in his pulpit. I can now breathe much deeper, and with less pain, than formerly. I have also had but one return of blood-spitting since I commenced using the tube. I find, after an exact measurement of my chest, that I have gained rather more than three quarters of an inch. I still continue to use the tube, and confidently hope that through the divine blessing I shall be fully restored to my former health and strength.

You are (allow me to say) at perfect liberty to make any use of the above simple and unvarnished statement of facts you think proper.

I am, dear sir, respectfully yours, &c.,

RICHARD GARRETT.

The following testimony, from the pen of Rev. Mr. Sunderland, is also very interesting:—

New-York, March 20, 1839.

DEAR SIR,—It is now three months since, at your recommendation, I commenced using the tube invented by Dr. Ramadge, for the cure of pulmonary consumption. As you know, it is more than seven years since I lost my voice from a severe bronchial affection, caused by preaching when I had a bad cold. During this time I have used every means in my power for a recovery; and while my general health for two years past has been very good, my voice had recovered but very little strength; (I mean, of course, strength sufficient to enable me to speak in public;) till since I commenced using the tube. And though I have used it only about eight weeks in all, yet I must say that the *tone* of my voice has improved considerably more in this time, I think, than during a number of years before. This is also the opinion of my friends. And it seems to me that a slight acquaintance with the anatomy and physiology of the human body must convince any one that the system adopted by Dr. Ramadge is based upon the immutable principles of philosophy and truth; and the success which has crowned his practice for a number of years puts the matter beyond all reasonable doubt, that consumption, if attended to in time, can be cured.

LE ROY SUNDERLAND.

Mr. Sunderland has since informed me that he is well.

From the Rev. T. J. Harris.

Having been afflicted for a number of years with a most inconvenient and distressing affection of the throat, it at length terminated in the raising of blood. I was induced to procure of Mr. J. M. Howe the tube recommended by Dr. Ramadge, and instructions for its use, &c., and have found it effectual in removing, in the course of a few weeks, entirely the inflammation from my throat, and a most distressing sense of pain and weakness of my lungs. Whereas formerly my pulpit services were attended with great pain and suffering, I have now for some time resumed them, with great comfort to myself, and with little pain or difficulty of any kind, and am free to say, that nothing that I have ever tried has had the effect produced by the tube.

REV. T. J. HARRIS,

Pastor of 2d Mariners' Church, New-York.

From Rev. Mr. Sutton, of New-York.

DEAR SIR,—I take much pleasure in informing you that since I commenced the use of Dr. Ramadge's inhaling tube my health has slowly, yet constantly improved to the present time. When I obtained the tube of you my health was very poor, as you will recollect, and my difficulty in breathing was very great. This was attended with inflammation of the left lung, and an almost unceasing pain in the left breast and side. These symptoms, however, are being gradually overcome, insomuch that I am strongly inclined to believe that, with the blessing of a good Providence, a final restoration will yet take place. As to the propriety of the tube in cases of *bronchial* and *pulmonary* affections I can have no doubt; faith has been inspired in me by its *philosophy* and its *use*. Furthermore, I have obtained the tube for several intimate friends, to whom I recommended it, and who are now being benefited by it. The increase in the size of my chest since I first obtained the tube has been two inches.

I am most affectionately your brother,

New-York, Sept. 4, 1839.

GEORGE D. SUTTON.

A lady of wealth and respectability, residing in Abingdon-square, whose habit is decidedly consumptive, and who is confined to her house, under the care of a respectable physician, has been using the tube by his advice. When he obtained it for her he informed me that her lungs were so much diseased, particularly one of them, which was extensively tuberculated, that he had no expectation that she could live any length of time, being very much debilitated, with great weakness of voice, &c. She has received very great benefit, so as to enjoy comfortable health. In order to obtain some facts relative to her

case I visited her while preparing this, and she informed me that her chest has enlarged two or three inches since commencing the use of the tube, that her voice is much strengthened, so that she can converse with less weariness than formerly, and can indulge in singing a little, and that her general health is greatly improved. Her improvement thus far affords the highest gratification to her friends.

A lady, in whose integrity and piety I have the utmost confidence, informed me, a few days since, that as she was sailing down the Hudson, in one of our steamboats, an aged lady on board informed her that her daughter had been raised from a very low consumptive state by the use of the tube, to the agreeable disappointment of her physician and family.

From William H. Huggins, M. D., of West Hartland, Conn., dated Oct. 11, 1839.

I wish you to forward another tube, book, &c., to Hartford, as soon as Friday, the 18th, without fail. I herewith enclose the amount. I have several patients under my care who are using the tube, and at present seem to be benefited materially by it. Yours, &c.,

WILLIAM H. HUGGINS.

I have many interesting communications: one more shall suffice. A lady from Owego writes me thus:—

“Before I used the tube, at times I could not speak a loud word, and it was very difficult for me to breathe; but after using it about three weeks, I was not again attacked with such extreme weakness of voice and pressure for breath.” She adds, “I am acquainted with two ladies who are using your tubes, and have received great benefit from them. One resides in Newburgh, and the other in Shawangunk.”

So increasingly numerous have been the cases of pulmonary consumption, and so fatal the progress of the disease throughout a large portion of our widely extended country, notwithstanding all the efforts made to arrest it, that if more information can be thrown on its treatment, it is due to the public that it should be communicated. And while intelligent writers have shown, in various publications, the importance of physical exercise in the open air, cleanliness, cheerfulness, and a strict regard to temperance in all things, I am led to conclude, from my own experience and from observation, that too little has been said or written upon the importance of proper breathing, and its beneficial effects upon the whole system.

The late Dr. TALMADGE SUTHERLAND, of this city, taught that one

of the principal causes of indigestion is improper breathing, which produces a total disarrangement of the abdominal viscera and the circulation of the fluids, with a contraction of the muscles ; that the action of the diaphragm becomes inadequate to perform its proper requirement, producing indigestion, which, if not remedied, would eventually be followed by pulmonary consumption ; and that the principal cause which leads to improper breathing is, an anxious state of mind, produced by disappointments, losses, or embarrassments, &c. This improper breathing, such as sighing, or the like, he styled an upward breathing. In treating his patients he particularly laboured to correct the breathing. I owe my recovery from a low state of health, of full three years' standing, (in which I was entirely unfitted for business, by indigestion,) to him, after having been medically treated by some of the most eminent physicians of this city and elsewhere. And to my certain knowledge he was also instrumental in recovering many to health and usefulness who could get no benefit from the usual medical treatment, and who had no prospect before them but of dragging out a miserably useless existence.

The following facts will not be uninteresting. The testimony of a gentleman with whom I travelled some distance in England is in point. He informed me that three or four years ago he had repeated attacks of hemorrhage of the lungs, and that he cured himself by rising early in the morning, and walking out on some hills adjacent, and taking deep inspirations for an hour at a time.

The Rev. JOHN WESLEY states that he has known a deep consumption to be cured by putting a sod of turf to the nostrils and taking the scent of the earth.

I am indebted to Dr. NORTH, of Saratoga, for the following fact :—

“Dr. Dewees, of Philadelphia, recovered from frequent hemorrhages from the lungs, when young, by playing the flute, which practice he adopted with the express object of removing a threatened consumption.”

The exercise in the lungs, by the use of wind instruments, beneficial as it may have been in this solitary instance, is by no means to be recommended, as it is a constant effort to expel from the body the air, while little opportunity is offered to permit the person fully to inflate the lungs by drawing a full and deep inspiration ; and although it produces exercise in the lungs, it is the opposite of the healthy and vigorous exercise resulting from healthy breathing, or breathing through the tube.

The Rev. JOHN HODGSON, jr., of Middlesborough on Tees, England, gave me the following interesting account of a gentleman educated as a physician, who, on leaving his profession for the pulpit,

after a few years was taken with a throat disease, with loss of voice, and great debility of the chest. After being medically treated without benefit, he was informed by the faculty that he would jeopard his life by any further attempts at public speaking, and that it was necessary to abandon it entirely. He resumed his medical practice, and subsequently the thought occurred to him, that he had read in his youth of the great importance of correct breathing, and of breathing through the nostrils. He at once commenced this mode of breathing, taking deep inspirations: after thus practising a few months he was perfectly restored to health, and his voice was so strengthened, that for many years he could with ease address the largest public assemblies in the most spacious buildings.

The following remarks on the structure of the lungs, and the beneficial effects of proper respiration, are from Combe's Physiology, a work of acknowledged merit, which is extensively before the public:—

“The substance of the lungs consists of *bronchial tubes*, *air-cells*, blood-vessels, nerves, and cellular membrane, or *parenchyma*. The first are merely continuations and subdivisions of the windpipe, and serve to convey the external air to the air-cells of the lungs. The air-cells constitute the chief part of the pulmonary tissue, and are in one sense the termination of the smaller branches of the bronchial tubes. When fully distended, they are so numerous as in appearance to constitute almost the whole lung. They are of various sizes, from the 20th to the 100th of an inch in diameter, and are lined with an exceedingly fine thin membrane, on which the minute capillary branches of the pulmonary arteries and veins are copiously ramified; and it is while circulating in the small vessels of this membrane, and there exposed to the air, that the blood undergoes the change from the venous to the arterial state. So prodigiously numerous are these air-cells that the aggregate extent of their lining membrane in man has been computed to exceed a surface of 20,000 square inches.

“It may be thought that the interposition of such a membrane must have the effect of preventing any action of the air upon the blood. But, in addition to the proof to the contrary drawn from observation, it has been ascertained by experiment that even the thick and firm texture of the bladder is insufficient to prevent the occurrence of the change; venous blood confined in a bladder speedily becoming of a florid red, like arterial blood.

“The free and easy expansion of the chest is obviously indispensable to the full play and dilatation of the lungs; whatever impedes it, either in dress or in position, is prejudicial to health; and, on the other hand, whatever favours the free expansion of the chest equally promotes the healthy fulfilment of the respiratory functions. Stays, corsets, and tight waistbands, operate most injuriously, by compressing the thoracic cavity and impeding the due dilatation of the lungs; and in many instances they give rise to consumption. I have seen one case, in which the liver was actually indented by the excessive pressure, and long continued bad health and ultimately death were the results. In allusion to this subject, Mr. Thackrah mentions, that men can exhale,

at one effort, from six to ten pints of air, whereas in women the average is only from two to four pints. In ten females, free from disease, whom he examined about the age of $18\frac{1}{2}$, the quantity of air thrown out averaged $3\frac{1}{2}$ pints; while, in young men of the same age, he found it amount to six pints. Some allowance is to be made for natural differences in the two sexes, but enough remains to show a great diminution of capacity, which can be ascribed to no other cause than the use of stays.

“Judicious exercise of the lungs is one of the most efficacious means which we can employ for promoting their development and warding off their diseases. In this respect the organs of respiration closely resemble the muscles and all other organized parts. They are made to be used, and if they are left in habitual inactivity their strength and health are unavoidably impaired.

“When the chest is expanded by a full inspiration, the bowels are pushed downward and forward to make way for the lungs; when the air is again expelled, and the cavity of the chest diminished, the very muscles which effect this by pulling down the ribs contract upon the bowels also, and push them upward and inward, as can be plainly perceived by any one who attends to his own breathing. By this contrivance, a gentle and constant impulse is given to the stomach and bowels, which is of great importance to them in contributing to digestion and in propelling their contents.”

He remarks further upon respiration and animal heat:—

“The relation between the production of animal heat and the condition of the respiratory functions, is the most direct and remarkable. In general, other conditions being alike, heat is generated more or less freely, in proportion to the size and vigour of the lungs; and when these are impaired, the production of heat is diminished. Hence many persons with imperfectly developed lungs, and a predisposition to consumption, complain habitually of coldness of the surface and feet; and many who were previously in good health become more and more sensible to cold, in proportion as the approach of disease weakens the functions of the lungs. I have noticed this increased sensibility to cold as a precursor of chronic pulmonary disease, both in myself and others, before any other very ostensible symptom had appeared, and think I have seen its further progress arrested by the timely use of proper means, where much greater difficulty would have been experienced had the warning not been attended to.

“The generation of heat in the living system being so immediately connected with the lungs, we find the temperature highest in those animals who possess them in the greatest perfection, viz. birds. In many species, the internal heat exceeds that of man by twenty or thirty degrees; while that of man exceeds, to as great an extent, the heat of such of the inferior animals as are remarkable for imperfect organs of respiration.”

Beneficial, however, as is correct breathing, and necessary as it is to the enjoyment of health, yet I well know that it is exceedingly difficult for a person in a low state of health to perform it so as to give a healthy and vigorous exercise to the pulmonary muscles or digestive

organs, without some contrivance to assist. I know of nothing so well calculated to afford this exercise, expansion, and full development of the lungs, as the tube; a few months' use of it by the invalid will so call the chest into action as to enable him to breathe well without it.

The practice of Dr. Ramadge, however, is entirely new in this country, and time must elapse ere it will be extensively known, adopted, or even fairly experimented on; but from the reception it has already received from some physicians and other persons, I am encouraged to hope that it may be brought into general use.

If the principles of practice laid down in this book be true, (and I verily believe they are, if fairly adopted and practised,) how many a pallid, cadaverous countenance might again be flushed with health; how many a feeble limb again nerved and strengthened; and how many a family made to rejoice that their stay and only hope in life might yet be permitted to tarry with them!

But even though it should not accomplish all that is asserted, yet it still claims a fair and impartial trial; for if it fail at last, it will do no more, or accomplish no less, than all other means that have been used in consumption for ages before it. But of this much I am certain, the means are so simple, and the exercise of inhaling so grateful and soothing to the patient, affording him exercise and pastime, that it will at least contribute to smooth his pathway to the tomb. But it has been objected, by some physicians, that inhalation would be improper in some stages of consumption. So says Dr. R., in his remarks on inhalation.

"There are cases in which inhalation is contraindicated; for instance, in dilation, or hypertrophy of the heart, severe mucus catarrh, general emphysema of the lungs, pleuritic, or pneumonic inflammation, hæmoptysis, or latent consumption, of long standing."

It has been remarked by others that inhalation cannot effect a cure in all cases. So says Dr. R.,

"No permanent benefit is to be expected from this remedy, when the inferior lobes of the lungs contain cavities, or are studded with tubercles; yet, even in this unfavourable state I have known relief arise, and surprising prolongation of life ensue, from its employment. I have individuals under my care, at this moment, in whom one lung is almost useless from extensive tuberculous disease, and with even well-marked pectoriloquy on the top of the opposite lung; still, from having the rest of the lung on this side in a satisfactory state, and thus being partially susceptible of the influence of inhalation, the progress of consumption has been arrested; and in more than one instance, the relief afforded by inhaling has enabled the individual to attend to the duties of his calling—of course no very onerous ones. Indeed, I shall feel happy to introduce any of my readers, who may entertain a desire to see such remarkable instances of inhalation, to these patients of mine."

The doctor repeatedly assured me, that persons of narrow chests, or whose system was in a bad state, or those who were hereditarily predisposed to consumption, would entirely be prevented from falling into it, if they would persist in the course of inhalation for about six months, or longer; it will however require some effort and perseverance, particularly in persons decidedly consumptive, who will occasionally be discouraged by the return of the hectic fever, night sweats, and shortness of breathing, and sometimes of soreness in the chest, all of which are to be treated medicinally as directed.

The general use of the tube, however, I fear, notwithstanding the clearness with which the doctor has pointed out the proper persons by whom it should be used, and how and when it should be used and when laid aside, and the medical course to be pursued in connection with it, will be greatly hindered by its injudicious employment; some will use it when the lungs are in a state of inflammation, without first reducing it, as directed, by local depletion, &c., and some, when labouring under great oppression of the chest, or shortness of breathing; it will be used by those whose lungs are asthmatic, and by others who are afflicted with disease in the heart, &c. Those, however, to whom it is likely to be beneficial, will, by pursuing a course of inhalation for months, experience a variety of sensations and changes of the chest, (which at times will be sore, on account of the expansion and exercise,) and also a more free expectoration, upon the softening down of the tuberculous matter. Without a proper knowledge of some of the probable effects resulting from its use, one would hardly have patience and perseverance to continue it; but for the instructions received from time to time from the doctor since my return, I should myself have been in doubt. I am, however, sure, if used as directed, it will accomplish all that the doctor asserts. In conclusion, I would add, that my only design in the republication of this work in this country is, to spread information which I conceive to be invaluable,—information which has prolonged my life and the lives of others; humbly praying that it may be a mean for the prevention of this dire disease, and the restoration of the health of many.

I greatly regret my inadequacy to present this subject to the public as it should be, and most sincerely wish it had fallen into abler hands; but, notwithstanding my insufficiency, I have no desire to shrink from the task, most sincerely believing that I am acting in the order of providence.

PREFACE

TO THE FIRST EDITION.

Most men have some one darling wish, which forms the central point to which all their ideas and feelings verge. My attention was directed at my outset in the profession to that tremendous disease, which, from its wasting effects on the human frame, too truly and appropriately bears the name of consumption. I found those to whose experience I looked to direct and guide me, themselves walking in the dark. Books only displayed to me a mass of crude, ill-arranged, unreasoned-upon facts, or the fanciful chimeras of medical visionaries. I saw that those branches of knowledge which had been redeemed from the wastes of empiricism, and brought within the pale of art, had been indebted for this successful issue to the system of induction which owns BACON as its father. The assemblage of facts without classification, and this last without careful investigation of specific differences, might, and did, I perceived, pass for labour and observation, but was certainly not science. I felt mortified and degraded at the utter inefficacy of medicine, and of medical art, in this the commonest of diseases; and I was soon convinced that the only means of rescuing my profession from this "darkness visible" was to make the physician subordinate to the anatomist. I had yet a higher object in view—that of mitigating human suffering. I have toiled to this end, and what I felt to be my duty has been my reward. In no boastful spirit do I speak, but in a thankful one. I have proved that there is a cure for what has hitherto been deemed incurable; and this, no drug known but to its compounder, but a simple mechanical process available to all. That which has been as yet confused, is, I would hope, rendered clear: and I trust that modes of treatment resulting up to this period from conjecture, and leading but too often to confirm the disease they were intended to cure, will soon pass away with other exploded practice, that now moves but our pity, or our disgust.

MARCH, 1834.

PREFACE

TO THE SECOND EDITION.

"It is passing strange" that medical attention, in this country, should have been so little directed to the pathological consideration of consumption. Nor is it less so, that consumptive patients are expressly excluded by the regulations from more than one of the metropolitan hospitals. We are chiefly indebted to foreign writers for anatomical investigations of the various diseases connected with the chest; although they have done but little toward developing any plan of treatment, holding out decided hopes of success, in consumption. The

ill fortune which characterized the means usually pursued by the profession, in consumptive cases, early struck my attention. My medical brethren appeared, with respect to this disease, to be as rigid fatalists as the Mohammedan; and to resign themselves calmly to the belief, that when once consumption appeared, human efforts could be of no avail. Yet this apathetic resignation was neither consistent with reason nor with sound philosophy. No man could feel more deeply than myself that the issue is ever in the hands of the Omnipotent; but I could not bring myself to the conclusion, that, because failure had hitherto attended human agency, to cure was therefore impossible. I could not sit down like our oriental prototypes, with the exclamation, "Allah Akbar!" and do nothing. Such were my impressions, and such my reasoning, twenty years ago. It appeared to me, that not only the treatment of pulmonary consumption was ill understood, but that the pathology of most of the affections of the chest had not received that investigation which they deserved. Yet none are more important, or indeed, taking their number into consideration, so much so; seeing that the heart and lungs constitute the two main props of what, together with the brain, Bordeu felicitously terms the *tripod of life*. For the time just mentioned, it has been one of the chief objects of my professional labours to advance our knowledge of this interesting class of diseases. The vacancy which the resignation of Dr. Buxton, (for several years physician to the London Hospital,) left at the Infirmary for Diseases of the Chest, presenting the only favourable opportunity London affords for seeing, in large numbers, every variety of case connected with pulmonary and other affections of the chest, was eagerly embraced by me. I was fortunate enough to obtain the situation of physician to the Infirmary; and trust that the present work will prove that I have not misemployed the abundant facilities it holds out for investigating the pathology of these diseases.

I feel a sincere pleasure in stating the reception which the first edition of "Consumption Curable" has met with from the liberal portion of my profession. The letters I have received, from intelligent practitioners in every part of the United Kingdom, have gratified me in more than a selfish point of view. They have proved to me that, however interested motives may bias some, there is an active and honourable spirit abroad in the profession at large, which induces a frank and manly openness to conviction. The owls, who shut their eyes to the light of truth, because it would guide others through the "palpable obscure," are likely soon to be left alone in their blindness. An amended medical education will rectify all these things.

It will not be thought that I overrate the importance of the diseases affecting the chest, when it is considered that scarcely any part of the body can be indisposed without the chest's participating. Yet it is consolatory to reflect, to employ the words of Laennec, that "*Quelque dangereuses que soient les maladies de la poitrine elles sont cependant plus souvent curables qu' aucune autre maladie interne grave.*"

SEPTEMBER, 1834.

PREFACE

TO THE THIRD EDITION.

IN answering the demand for a new edition of the present work, it is gratifying to state that I find my opinions are rapidly gaining ground abroad, and steadily extending at home. To the German translators, especially, of "*Consumption Curable*," for it has been honoured by several distinct translations into that language, and to Dr. Hohnbaum, in particular, I am much indebted. The preface of this justly celebrated individual is liberal and philosophic. Too thoroughly informed in his art to deny the curability of phthisis, he was of too enlarged a mind to refuse my system a fair trial merely on the score of its novelty, and too high principled to withhold his testimony to its success. In the Appendix will be found the cases with which he has enriched his translation.

I may mention it as a proof of the earnestness of the foreign medical press in the diffusion of our common art, that translations of my work have been forwarded to me from the most opposite parts of the continent. The last I have received is from the pen of Dr. Schmidt, and was published at Pest, Hungary: it is a second edition of my first edition.

In this country, likewise, I am proud and anxious to acknowledge, that if I have encountered much prejudice, I have also met with great liberality. The cases submitted to me by country practitioners would alone be satisfactory evidence of the spread of sounder opinions on the pathology and treatment of pulmonary consumption. But this acknowledgment is not to be confined to the provinces. Were it not for the fear of exposing them to ungenerous attacks and the vexations of professional controversy, I might name several eminent physicians of the metropolis who coincide with my views frankly and fairly; others there are who quietly imitate my practice, and thus tacitly pay it the best compliment; while the numerous cases to which I am called in by the general practitioner, warrant me in believing that I was not too sanguine when I ventured to say in my first preface—"I trust that modes of treatment, resulting up to this period from conjecture, and leading but too often to confirm the disease they were intended to cure, will soon pass away with other exploded practice that now moves but our pity, or our disgust."

Still, as must ever be expected in the outset, there is no lack of opposition to these views. Many refuse to examine their validity: many examine, with a fixed determination not to be convinced. Others again esteem themselves too much to credit the possibility of cure where they have failed: it would be to deny their own talent, to confess their own inferiority, in short—a bad compliment to self. Some there may be—but this is hypothetical—who regard the increasing reputation of another as so much subtracted from their own treasury. With such, the abridging the duration of disease, and still more the preventing its ingress, is to "bring down the rate of usance

here:" to cure, above all to avert the need of cure, is not in their "bond."

Since the publication of the present treatise, three works have issued from the press on the same subject, or partly so. It would be uncourteous to pass them over in silence; and I am quite willing to give them the "honour due." They differ in point of literary, and are unequal as regards their medical merit; but, in one respect, they are on the same level. Their authors agree that they cannot cure consumption, which is highly probable; they likewise agree that it cannot be cured, which is directly opposed to the highest authority on the subject, and is the reverse of my own experience. To begin with the work of Dr. James Clark. Since this gentleman passed the greater part of his professional life (at least before I had the honour of being one of his examiners at the college of physicians) among the English resident in Rome, his field of observation must, I presume, have been rather limited. However, taking Laennec, Louis, and Andral for his guides, he has produced a very neat compilation from their admirable volumes. His work is destitute of originality, to which, I should suppose, its author hardly lays claim. The point on which he insists most strongly is, that "the constitutional origin of tubercles, by far the most important part of the subject, has been neglected;" and he would appear by the context to imagine that he was fixing attention for the first time on an essential principle, since he adds, "if we succeed in giving a satisfactory exposition of this, the most important, but hitherto most neglected part of our subject, we may hope to lay the foundation of a sounder pathology of tuberculous disease." Nothing can be more true; but, without referring to the writers who precede us both, had he bestowed a glance on my pages, he would have seen the same doctrine strenuously insisted upon. To adduce one, out of various passages of like tenour, I observe, "Many writers are of opinion, that various thoracic diseases are a fruitful cause of consumption; but I am satisfied that this supposition is groundless. It is merely owing to the loss of health entailed by them, that the development of those accidental productions called tubercles takes place. To enumerate the various causes of consumption would be endless; for, in fact, whatever is capable of impairing the constitution is liable to produce a phthisical state." Surely the doctor's "exposition" and mine are convertible—*alter et idem*.

Would it not lead to too great a length, I should feel proud to bring forward the coincidences which occur between Dr. Clark's work and mine, whenever he propounds any notion bearing the appearance of novelty. Yet, by a strange predilection for the despairing side of the question, he invariably declines following out such notions to their practical results. He appears to labour under a morbid dread of the curability of consumption; although, in deference to Laennec, he is constrained to admit those pathological facts on which I ground the *rationale* of my practice. Thus he confesses, that "although caverns generally tend to increase in size, yet not infrequently when they occur singly, and when no fresh depositions of tubercles take place, they remain a long while stationary. In cases still more uncommon, they gradually contract and become obliterated." Again, "in a very large proportion of cases, it is only in the early stage we can hope to effect

a cure." There are some, then, that may be cured at a more advanced stage? *Euge!* the doctor after this may surely go a step further, and exclaim with Laennec, "Cure in cases of pulmonary phthisis, in which complete disorganization of the lungs has not taken place, ought not to be considered impossible, either as regards the nature of the disease, or the organ affected." It is singular that a medical man should deny the curability of phthisis, after excepting "the small proportion of cases in which the tuberculous deposit is confined within narrow limits." If we believe this writer, consumption is not curable—but there are exceptions, it seems. Truly there are; and had these cases of exception been thoroughly investigated, and the process by which they were effected diligently traced, the instances of failure would long since have taken their place, and have themselves become the exceptions. I speak confidently on this head, as my experience warrants it.

The doctor, too, by some unhappy slip of memory, is at variance with another writer, a coadjutor of his in the "Cyclopædia of Practical Medicine," for whom he professes a profound deference. This gentleman, Dr. Carswell, observes in his article on "Tubercle," speaking of consumption, "The important fact of the curability of this disease has, in our opinion, been satisfactorily established by Laennec." And let me add, in the opinion of every one who has read the immortal work of that great man—and understood it. Dr. Clark, however, does not absolutely deny the possibility of curing the disease, but "damns with civil sneer." Cases of cure do happen, rare exceptions. Of course, rare enough with those who do not know how to treat the disease. Rare and fortuitous, I grant, previously to the appearance of my publication. Yet, although his own treatment may be productive of any thing but satisfactory results, why not state with Laennec, that there is no valid reason, "either as regards the nature of the disease, or the organ affected," why consumption should not be cured? Why so lachrymose, when his chief authority holds out such hope?

The above writer is "followed to the field" by Dr. T. Davies; the motto to whose lectures on diseases of the chest might aptly be "*abandonate speranza voi ch' entrate.*" This work seems to be a synopsis of that of Laennec; and is inferior to Dr. Clark's, inasmuch as it is chiefly borrowed from one authority, instead of from three or four. But, on the favourite point, Dr. Davies has deviated from his sworn guide still further than Dr. Clark. The one is reluctant to admit the curability of consumption, allowing, however, that such an event does occasionally happen; the other boldly proclaims, in the teeth of his exemplar, that it is *not* curable. He speaks, I presume, from his own experience: he may have been uniformly unsuccessful, and hence his claim to be so positive. Yet, incurable as he may have found the disease, it is singular that after following Laennec with almost servile idolatry, he should arrive at directly opposite conclusions. Laennec supposed, and truly, that he had not only discovered a series of signs throwing the clearest light on the diagnosis of consumptive disease, but, that by establishing its pathology on a broader and sounder basis, he had proved the possibility of cure, and paved the way for important practical results. Dr. Davies, however, although he has lit his own rushlight,

(“ And lights his farthing candle at the sun ”)

at the lamp of that great man, and painfully picks his steps by its assistance, suddenly extinguishes it as he approaches his labours' end, and jumps for safety into the slough of despond. “ Follow Laennec,” he exclaims to his pupils, “ I can give you no better guide ; but do not go straight to the mark with him and attempt to cure consumption ; stop short and be warned by me,—for I have enjoyed a liberal allowance of failure,—that it cannot be cured.”

Another of our medical illuminati, Dr. Latham, of St. Bartholomew's, has condescended to complete the triumvirate, and has just published his version of Laennec, under the title of “ Lectures on Subjects connected with Clinical Medicine.” After an introduction, in which he informs us that surgery is more popular than medicine, “ because it is easier,” he proceeds to treat of the signs afforded by auscultation. These he divides into the moist and dry, and appears to conceive that he has thus made a novel and important distinction. So in fact he would, did he not labour under the disadvantage of having been anticipated by Laennec. As a specimen of the innocent method in which he assumes the tone of a discoverer, I quote his conjectures as to the causes productive of the sign which is termed *sibilus*. “ *Sibilus* may then, (in spasmodic asthma,) if ever, be truly called a dry sound. But I am not sure that the *sibilus* directly results from the mere condition of dryness ; I doubt whether simple dryness alone naturally would produce it. In consequence of its dryness, the mucous membrane may lose its elasticity, and become, to a certain degree, unyielding ; or it may undergo wrinklins, or puckerings, at various spaces ; or its general tumefaction may produce a narrowing of the smaller tubes, and thus present obstacles to the passage of air, and impart to it new vibrations ; and hence the *sibilus*.” Let us see what Laennec said touching the same sign some eighteen years before. According to this writer, that variety of the dry sibilous rhonchus which is “ more strictly sibilous, is probably occasioned by a local contraction of the smaller bronchi, from thickening of their inner membrane.” This short sentence is the key note on which Dr. Latham rings the amplifications which he ushers in with the modest “ I am not sure that,” “ I doubt whether,” until he arrives at Laennec and the root of the matter with his “ it may undergo wrinklins, or puckerings, at various spaces, or its general tumefaction may produce a narrowing of the smaller tubes.” Proceeding to illustrate the said *sibilus* still further, he describes the case of a little boy, in whose chest a shrill *sibilus* had taken place of the natural respiratory murmur,—“ Wherever you applied your ear to the chest, you might fancy you heard the piping and screaming of a nest of unfledged birds.” How delightfully this simile is brought in as a new and felicitous illustration with the “ you might fancy :” and how poetically has he decorated the dry, matter of fact, detail of Laennec, who writes—“ The dry sibilous rhonchus is of very various character. Sometimes it is like a prolonged whistle, flat or sharp, dull or loud ; sometimes it is very momentary, and resembles the chirping of birds.” Truly, Dr. Latham deserves credit for his ingenuity. It would be amusing enough to show, page by page, how dexterously the Bartholomew pro-

fessor twists Laennec into a new shape. Sometimes he swells a few words into a mass of well-rounded periods; at others, he reverses the process, and compresses, with crushing effect as to sense and information, a series of nicely evolved deductions into a few disjointed sentences. In fact, he has put Laennec into his literary mill, ground him down, and then leavened him with his own leaven, with that peculiar skill in the process which might excite the envy of a "bookseller's hack." His art in appropriating good things is only to be equalled by his aptitude to spoil them while in the act of "conveying."

Dr. Latham is equally guiltless with his comrades of enlarging the boundaries of science; and is also equally anxious to announce his want of success in the treatment of consumptive disease. He has very wisely devoted a volume to show the marvels he can achieve by means of auscultation, with what precision he can calculate the ravages of the disease, and O! the art of sinking,—how utterly unable he is to cope with it. "All the world," he exclaims, "is asking us *whether consumption be curable*" (*sic in original.*) Indeed! It has come to this, has it? I am personally obliged by the confession. Dr. Latham has now only one more step to make, and he will discover some fine morning that consumption is curable. The pressure from without will jog him and his brethren on. All the world asks the question! This coincides with my own opinion; and I find people come a long way to ask it. I have had individuals of this inquisitive turn of mind who have come from Sweden, from Russia, from both the East and West Indies, and from other distant quarters, to ask the aforesaid question, and they were satisfied with my answer; although I must think they would have repented their trouble had I given them Dr. Latham's.

Dr. Latham is much more elaborate than his non-curing coadjutors, in displaying his disbelief of the curability of consumption. He reasons! at some length on this, to these gentlemen, all-important point. So eager indeed are the trio to prove to their patients their inability to cure consumption, that I verily believe they would willingly contract the disease, were it possible, and die in order to support their doctrine. They would be cheerful martyrs to their professional faith, and perish honourably *secundum artem*.

But to return to Dr. Latham's reasoning. It is so exquisite a thing of the kind, that I should do him injustice were I not to give it in his own words. "In examining by dissection the bodies of those who die of pulmonary consumption we occasionally find the traces of a vomica healed. But in those who have not died of any pulmonary symptoms, (die of symptoms!) and who were never known during their lives to have any symptoms apparently; the same evidences have been found after death of what was once a vomica. This is a cure, or tantamount to a cure, but it was a consumption which nobody knew to exist." Proceeding then to the question which he describes all the world to be asking, he rejoins, "It is a mockery to answer, 'Consumption is a curable disease;' because, forsooth, its entire process from beginning to end—its formation, progress, cure—may be *secretly* transacted within the body without our knowing, or suspecting any thing about it." This is superlative. I meet a person whose face is seamed with the scars left by small pox, and because I

did not see him when labouring under the disease, I deny that he ever had it. I am in company with another who has lost an eye, and because I did not witness the loss, I assert that it is in his head. A patient dies, as is supposed, of eruptive fever, for which he has been treated, but dissection proves that pneumonia was the more immediate cause of death; still as the pneumonia was not discoverable during life—*ergo*, says Dr. Latham, exist it did not. In short, according to this writer's newly invented logic, there can be no such thing as *latent* disease because it is "*secretly* transacted within the body," and as he ingenuously adds, "without our knowing or suspecting any thing about it"—a circumstance which an ordinary man would suppose implied in the word *secretly*.

Should we be rash enough to affirm that Dr. Latham exists without brains, because no traces of them are at present discernible? Far from us be such rigid logic—we will not test the doctor by his own rule.

Did I leave the above quotations from Dr. Latham's work as they now stand, I should act, as Dr. Latham has done by the question at issue, most disingenuously. I will quote his special pleading *verbatim et literatim*, and give him all the benefit of it. By the abstract made above, every word of which is his, although separated from the context, I have been enabled to show the naked folly of his reasoning. The context will render manifest either his disingenuousness, or, if written in good faith, his ignorance.

"Does consumption *ever* admit of cure? If ever, it must surely be when it occurs in the form which we are now considering, i. e. in the form termed by Dr. Latham *unmixed phthisis*. Let us, therefore, now give a few moments to this interesting question. A vomica certainly does admit of reparation so far as not to be a vomica any longer, but not so far as to leave behind it no trace within the lungs. It leaves behind it a scar—that is, the disease ceases in the part, but the part is not restored to the exact condition in which it was before the disease began. In examining by dissection the bodies of those who die of pulmonary consumption, among many existing vomicæ we occasionally find the traces of a vomica healed. At the apex of the lung we find an indentation, and descending from it, for half an inch or an inch, a thick perpendicular line of tough ligamentous substance. Sometimes this substance, by being pulled asunder, is discovered to contain the remains of a cavity, and sometimes not. But what imports this reparation of a single vomica, if so many besides still exist? A reparation of a twentieth part of the existing disease cannot be called a cure. But in those who have not died of any pulmonary symptoms, and who were never known during their lives to have had any symptoms apparently phthisical, the same evidences have been found after death of what once was a vomica, but no existing vomica together with it. This is a cure, or tantamount to a cure. It is as much a cure as when a single scrofulous cervical gland goes on to suppuration, and heals with a scar. A single vomica, you may say, is as much of the essence of consumption as a hundred; and if the morbid structure (no matter how small) in which the disease essentially consists be repaired, the disease is cured; that is, the consumption is cured. But it was a consumption nobody knew to

exist. Now all this may be very fine reasoning ; but it does not meet the plain meaning of the inquiry, whether consumption be curable. It is not proof enough to common sense of its being so, that a few isolated vomicæ, which gave no sign of their existence, should have undergone reparation. All the world is asking us whether consumption be curable? Indeed, all the world is interested in the question : for there is hardly a family into which consumption, sooner or later, does not enter : and when a man makes the inquiry (as it were) speculatively, or indifferently, he has most likely a real practical interest in it at home. He says, 'Is consumption a curable disease?' But he would say, 'I have a wife or a child, a brother or a sister, who is decidedly consumptive ; is there the least possible hope left me that they can recover?' To the question proposed with *such intent*, it is a mockery to answer, 'Consumption is a curable disease ;' because, forsooth, its entire process from beginning to end—its formation, progress cure—may be *secretly* transacted within the body without our knowing or suspecting any thing about it. If you ask me, as a physician, whether I have ever had experience of a perfect and satisfactory recovery taking place, where there have been all the best known *popular* symptoms, which, *as far as they go*, no physician could possibly say were not those of phthisis? I answer, 'Often.' But if you ask me whether I have ever had experience of the like perfect and satisfactory recovery where there were all these popular symptoms, and, withal, the conditions proper to phthisis, ascertained by auscultatory signs to exist beyond a doubt within the lungs? I answer, 'Hitherto, never.' What shall we say then? How shall we answer the popular question in the popular sense, and still answer it truly? We *cannot* say that consumption is curable ; but we *can* say, and truly, that there are cases of *imputed* consumption which put on such an aspect of the *real* disease, that they are with difficulty distinguished from it, yet have not its essence. 'These are all within the possibility of cure.' p. 254, *et seq.* The chain of reasoning, such as it is, in the above, is substantially the same as in the abstract first given—its gist being the consoling discovery that whatever we are ignorant of does not exist. But there is this addition ; that traces of a healed vomica are said to be found *among existing vomicæ* in the bodies of those who die of pulmonary consumption, but to exist in a *solitary state* when occurring in those who were never known during their lives to have had any symptoms apparently phthisical. The interpretation designed by the doctor to be put on this statement is, of course, that the vomica in the one case belongs to real consumption, and in the other is accidental.

In Dr. Clark's treatise, I find so apt an illustration of one probable cause of Dr. Latham's egregious errors, (and, indeed, of his own limited views,) that I am tempted to transcribe it. He observes, "It often happens that a patient, presenting all the indications of tuberculous disease, is said, and believed to be, merely *threatened* with disease of the lungs, or to have an affection of the trachea or bronchi ; and it is commonly added that 'with care all will do well.' This arises from the habit of trusting to symptoms alone for a knowledge of disease, *neglecting pathological anatomy*, by which the physician is enabled to connect the external phenomena of disease with the morbid condition of the organ."

Even were the facts as Dr. Latham states, his inferences would be supremely absurd; but being utterly unsupported by the results of dissection, they must be put forward either designedly or ignorantly. To appeal to my own experience only would be to rebut assertion by assertion. I shall therefore adduce proof of this accusation from the pages of Laennec, Andral, and Louis.

Dr. Latham has indeed found it convenient to copy Laennec in all save his conclusions, to which I shall presently draw his attention. However, I shall first quote Laennec's remarks on the cases he describes in his chapter on phthisis pulmonalis: for the cases themselves, I must refer the reader to his "*Traité de l'Auscultation Médiate*." He writes then as follows: "In my opinion, the foregoing cases prove that tubercles in the lungs are not in every case a necessary and inevitable cause of death, and that after an ulcerous excavation has been formed by their softening down, a cure may take place in two ways: in one, by the conversion of the ulcer into a fistula, lined, like all those which may exist without injuring the general health, by a membrane analagous to the tissues of the healthy body; in the other, by means of a cicatrix, more or less complete, and consisting of cellular, fibro-cartilaginous, or semi-cartilaginous substance. The identity of the cavities recorded in the 19th, 20th, 21st, 22d, and 24th cases, leaves no doubt as to the similarity of their origin, and their production by the softening of tubercles which had occupied their place. The 19th case may be looked upon as a cure, *since no more tubercles existed in the lungs*. The same may be said of the 25th, *since there was but one small tubercle met with*. The subjects of the 20th, 21st, and 22d cases would undoubtedly have undergone relapses, since there were crude, or miliary tubercles in their lungs which must have been subsequently developed; although this might have been protracted to a late period, and have still left the hope of a long life. It has been truly remarked by Bayle that crude, and in particular miliary tubercles, often exist for a series of years without seriously affecting the health." A little further on he writes, "Pulmonary fistulæ and cicatrices are extremely common * * * no one can follow a six months' course of pathological anatomy without meeting with them." (Vol. ii, pp. 98, 99, 100.) Will the learned professor at Bartholomew's step forward with his "*we occasionally find*," and deny this—Latham *versus* Laennec?

The doctor has indeed very coolly reversed the order of Laennec's reasoning. He infers, as has been seen, that since cicatrizations are found, at one time, combined with cavities and tuberculous deposits in the lungs of those who have exhibited symptoms of phthisis, and, at another, without these adjuncts in the lungs of those who are said not to have betrayed such symptoms, the cicatrices in the last are *lusus naturæ*, chance creations, "delusions of the evil one." Now Laennec argues thus: "Notwithstanding I have found tubercles, in different stages of development, in most lungs that have presented pulmonary fistulas or cicatrices, which would presume the certain, although perhaps remote return of the disease; yet, as in cases 19 and 25, I have likewise frequently met with the same marks of cure in subjects who have been entirely free from tubercles in the lungs or any other organ. In such cases it may, perhaps, be supposed that the cicatrices result from abscesses produced by inflammation of the

lungs, and not from tubercles. Such a supposition, however, would be perfectly gratuitous. *Whoever is in the habit of constant post-mortem examinations, may trace day by day, as it were, the formation of the semi-cartilaginous membrane on the surface of tuberculous cavities ; but the production of a collection of pus, or of a true abscess in the lungs by inflammation, although not an impossibility, is yet so rare as to be utterly insufficient to account for so common an occurrence.*" (Vol. ii, pp. 104, 105.) Dr. Latham and Laennec are thus at issue both as to facts and as to inferences from those facts. It does not require the technical knowledge of the practitioner to decide between them. The common sense of the general reader may be safely intrusted with the delivery of the verdict.

The conclusions drawn by Laennec from the experience of his vast practice, from his pathological investigations, and from the extensive field of observation laid open by his immortal discovery, are passed over by Dr. Latham ; or rather, are flatly contradicted by the "learned Theban." This, too, as in the case of Drs. Clark and Davies, is the more astounding, as Laennec has furnished the staple of his book. However, "*majora canamus*"—Laennec thus sums up : "I here conclude what I had to say on the possibility of curing pulmonary phthisis ; and trust the importance of the subject will excuse the length of my observations. With regard to the facts I have brought forward to prove its curability, I am convinced that every attentive observer will frequently meet analagous ones by employing the same means—mediate auscultation and dissection. My experience makes me believe them to be extremely common. I met with the cases I have adduced in the course of a few months ; I have since seen many others in the same period ; and it appears to me much more rational to refer this to their frequency than to my having by chance fallen upon such a collection of cases that are naturally rare. I have mentioned my having often observed similar appearances formerly, without paying much attention to them ; as in the natural sciences, an object may be daily seen and yet remain unknown, unless our notice be particularly directed to it. A gardener is seldom acquainted with a tenth part of the plants growing in the very ground he cultivates ; and, to borrow a comparison from medical science itself, an anatomist may be utterly ignorant of the organic changes which occur in the human body, notwithstanding he sees them every day while tracing the blood-vessels, or the nervous filaments. From my own experience I can affirm that a man in the daily habit of opening dead bodies may nevertheless partly forget descriptive anatomy. To conclude, the cure of consumption, when the lungs have not been entirely disorganized, ought not, I think, to be considered at all impossible, either as regards the nature of the disease, or of the organ affected. Pulmonary tubercles are in no wise different from those found in scrofulous glands ; the softening of which is, we know, often followed by a cure. On the other hand, *the destruction of a part of the substance of the lungs is not necessarily mortal ; since even wounds of this organ are frequently healed, notwithstanding their distressing complication with the perforation of the walls of the chest, and the admission of air into the pleura.*" (Vol. ii, pp. 110, 111, 112.)

To illustrate the difference between the candid allowances made by

a man of genius, even when his experience has been contrary to the existence of a reported fact, and the supercilious gainsayings of a sciolist, I cannot do better than quote the following admission made by Louis. He is closing his remarks on a case in which he had met with an excavation of middle dimensions, lined by a false membrane of moderate consistence, a quarter of a line in thickness, and lying upon healthy pulmonary tissue: "But may it not be asked, with some show of probability, whether this excavation were really the product of tubercles and if the patient had *phthisis*, since no tubercles or gray granulations existed in the lungs; and there were no ulcerations in the larynx, trachea, or intestines—alterations of such frequent occurrence in this affection? To this I would reply, that the purulent matter of the excavation was identical with that commonly found in tuberculous cases; that the false membrane had equally analagous properties; lastly, and the fact is a powerful one, a cervical gland was evidently tuberculous: and, in the course of these researches, it will be seen that I have never met with the tuberculization of lymphatic glands, except in the consumptive. * * * To conclude what I have to remark on the subject of tuberculous excavations, I may add, that I have not met in a single instance with cavities, surrounded by healthy pulmonary parenchyma, communicating with the bronchi, and lined with a light gray, semi-cartilaginous, semi-opaque false membrane, as tuberculous excavations of long standing are. M. Laennec, however, has found them in subjects who had presented the symptoms of *phthisis* during life, for a longer or shorter time. Judging, too, from their structure, it would be difficult not to believe that their formation was preceded by tuberculous softening. This fact, indeed, receives confirmation from the foregoing case; since, in this, as well as in the other cases to which I allude, there was only a solitary excavation; the substance of the lungs was healthy; and it may be concluded that if the individual's life had been prolonged for some weeks, or months, the false membrane which lined the cavity would have presented the above-mentioned characters."

How different this from the *animus*, how widely different from the reasoning powers of the man who writes, "but it was a consumption which nobody knew to exist." How opposite the spirit of the patient searcher after truth, and of the sophist who seeks to quibble it away. Thus we have Dr. Latham *versus* Louis!

Proceeding now to the author from whom Dr. Latham has taken the best point in his argument, I will give him an answer, drawn from the same source, to his "consumption which nobody knew to exist." Andral then writes as follows: "Looking collectively at the facts now cited, the result would seem that cavities of greater or less size, which have at some period existed in the pulmonary parenchyma, may at times perceptibly diminish, and even be completely obliterated. Laennec has described excellently the progress of this obliteration; and *this being a well-ascertained fact, the question may arise as to whether they were tuberculous excavations. To this we may answer in the affirmative.*" (Andral, *Clinique Médicale*.) The point which I have just said Dr. Latham has conveyed from his author is founded on the *assumed* fact that cicatrizations are generally observed existing simultaneously with tuberculous deposits; from which Andral infers

"we must not confound the certain cure of a cavity with the cure of the tuberculous affection itself." This is converted by Dr. Latham into the similar, but exaggerated proposition—"What imports this reparation of a single vomica, if so many besides still exist? A reparation of a twentieth part of the existing disease cannot be called a cure." Had he stopped at this conversion it would have been wise. But he must improve it by his discovery, in the first place, that the consumption in such cases is not known to exist; and, in the second, by his still greater discovery that whatever is unknown does not exist. This, indeed, is the doctrine of the materialists; and a sorry one it is.

Dr. Latham I have already answered. In reply to Andral's more feasible reasoning it is sufficient to observe, that if a single tubercle may be cured, the same process may obliterate an indefinite number.

It may be urged that I have misunderstood or misrepresented Dr. Latham's argument; that he does not deny the existence of consumption in the cases in question, but our knowledge of its existence. What then becomes of auscultation? Or does he argue that because a case is cured unknown to us, a cure, under similar circumstances of affection, can never be effected with our knowledge, or by our guidance! I inquire of the learned professor by what means the science of medicine has arrived at its present state. Is it by seeking in the dead body for an explanation of what has been going on in the living? And if so, to what end is this investigation instituted; to learn the means of cure by what we see, or to reject the lesson offered by nature as an insult to art?

I had previously shown that his facts were untenable. I have now, I trust, proved that his arguments, understood in any sense, and with every advantage of quibbling to boot, are equally groundless. However, he is, I dare say, correct in one particular—his want of success in consumptive cases.

I have entered at this length into a consideration of the three writers who have published since the first edition of my "Consumption Curable," not from any weight I attach to their authority, or from any doubt of the validity of my own doctrines, but from a sense of duty. They would contract; I would enlarge the boundaries of science. Their opinions are at variance with the positive testimony of pathological anatomy; mine in accordance with it. They belie the art they practise; I give it all honour. They refuse hope to the sufferer; I certainly would not awaken it in vain, but as certainly should deem it criminal to crush it when its realization is countenanced by nature, and effectuable by art.

It must be startling to the non-medical reader, at least, to be assured that it is next to an impossibility to open a dozen bodies without meeting with positive proof of the curability of consumption. Such, however, is the fact. Yet here are three gentlemen, it will be urged, physicians of some standing and of decent repute, Drs. Clark, Davies, and Latham, each of whom too is attached to some public institution, who positively deny that this disease can be cured. Is it to be supposed that if the proofs furnished by dissection be so common, they have never met with them? To this it may be answered, that there are few, very few medical men who trouble themselves to open bodies, and that not a tithe of these few *rigorously* examine them. I might

rest my case here, and the really scientific would fully understand me. But to bring conviction home to the general reader, who might imagine I was merely opposing theoretical opinions by theory of my own, I shall bring forward the testimony of a gentleman, frequently eulogized by Dr. Clark and late medical writers, who is, I imagine, as eminent a pathologist as any in this country—no excessive praise by the by—and who, though he has not added, that I am aware of, to our stock of knowledge, has at least reported truly the appearances with which his dissections have made him acquainted. Dr. Carswell, then, writes as follows :—

“The important fact of the curability of the disease has, in our opinion, been satisfactorily established by Laennec. *All the physical signs of tubercular phthisis have been present, EVEN THOSE WHICH INDICATE THE EXISTENCE OF AN EXCAVATION, yet the disease has terminated favourably, and its perfect cure has been demonstrated by the presence of a cicatrix in that portion of the lung in which the excavation had formerly existed.* * * * * There must be few practical pathologists who will not consider these anatomical facts as evidence that tuberculous phthisis is a curable disease. No objection has been brought forward calculated in the slightest degree to invalidate the conclusion to which we have been led by the repeated observation of the changes we have described, viz: that these changes are positive indices of the removal of the material element of the disease, and also of the cure of the lesions of structure to which it gives rise, even at an advanced period of its progress. * * * * *We cannot avoid repeating the fact, that pathological anatomy has, perhaps, never afforded more conclusive evidence in proof of the curability of a disease than it has in that of tubercular phthisis.*”—Cyclopædia of Practical Medicine, Art. Tubercle, pp. 265, 266, 267.

In order to give the general reader a clue by which he may unravel some of the workings of our medical press, I subjoin the following anecdote. Dr. James Johnson, editor of the Medico-Chirurgical Review, sent some few months since a medical work lately published in Germany to Dr. Spillan, a contributor to the above periodical, begging him to furnish a review and analysis of its contents. Dr. Spillan, of course, proceeded to his task, and at first conceived the work to be full of promise for his purpose, but was perplexed to find, on further reading, that the German physician advocated in the strongest terms the views and plan of treatment laid down by Dr. Ramadge, of London. For further illustration, the German reader was referred to the translation of “Consumption Curable,” as to a publication well known throughout Germany. This put the climax to Dr. Spillan’s perplexity; and it was quietly resolved that it would be the more prudent plan to give no notice of the work.

INTRODUCTION.

I AM induced, from my long connection with the Infirmary for Asthma, Consumption, and other diseases of the Chest, the only institution of the kind in this country, and, as far as I have been able to ascertain, in Europe, to publish my opinions on the treatment of pulmonary consumption—a disease unfortunately too well known to the inhabitants of this clime, by its prevalence and fatality. Having been thus for above fifteen years placed in a situation which has given me unrivalled opportunities of seeing numerous cases of this disease, I conceive it a duty I owe the public, through whose philanthropic aid the above charity has been long and liberally supported, to present them with the fruits of my labours, and unreservedly to state how far medical art is capable of arresting a disease to which nearly one-third of the adult population falls a sacrifice.

The results which have hitherto attended the treatment of phthisis have added but little to the reputation of the medical profession. I am fully satisfied, however, from the experience of years in treating this important malady, as well as from the deductions of unremitting pathological research, that it is in our power to adopt a line of practice more scientific and successful than any hitherto employed.

Though great attention has been bestowed by several distinguished continental writers, especially by Laennec, Andral, and Louis, on the physical signs and morbid appearances of consumption, and notwithstanding cases have been minutely detailed by them in which nature has effected a cure, still they seem to me to have had little idea that we can do more than relieve indications purely symptomatic.

A modern writer on consumption in this country, the late Dr. Young, of St. George's Hospital, who did not

pay that attention to morbid anatomy so commendable in our Gallic neighbours, but whose opportunities of treating the disease were considerable, favours us with an opinion as to its curability, which is very discouraging. He says, "It is probable that without assistance not one case in a thousand of the disease would recover; and with the utmost power of art, perhaps not more than one in a hundred will be found curable." It is my intention, in the succeeding pages, briefly to show that this statement is unfounded in fact; and that medical treatment has, in not a few instances, tended to prevent rather than advance recovery. I trust, too, I shall demonstrate, in the histories of some of my cases, that recovery has been owing, in a great measure, to the supervention of some catarrhal disease, occurring spontaneously, or which has been contracted, after the failure of remedial agents, by an apparently imprudent exposure to cold.

The reader will probably learn with surprise, that no inconsiderable number of catarrhal and asthmatic disorders are, indeed, the sequelæ of the disease which forms the subject of this work, more or less perfectly cured. Had the learned doctor whose name I have recently quoted been at the pains to investigate the primary symptoms of such disorders, he would have found, in many instances, that they displayed all the common symptoms of pulmonary consumption; and had this hospital physician been accustomed to the examination of dead bodies, he would have discovered, in more than one-fourth of the adult subjects examined after death, cicatrizations indicative of cured consumption; and on finding these appearances, had he inquired of some near relative of the deceased, if the individuals, at any period of their lives, had for a time expectorated blood—had been troubled with indomitable cough, night-sweats, diarrhœa, with emaciation of the body—or had been regarded by their medical attendants as consumptive, his opinion as to the curability of phthisis would probably have been more favourable.

It is, indeed, strange that medical men have not noticed the non-liability of the asthmatic individual to pulmonary consumption; and that various species of catarrh are the instruments by which nature chiefly arrests

that disease. It has been observed by me for years past, and on many occasions I have particularly remarked to my pupils, that asthmatics, (I mean those persons whose lungs are emphysematous,) however long exposed to circumstances that favour the tubercular development in the lungs, never become consumptive. Indeed, I have long found, and it is a remarkable fact, that, whenever the general health has been impaired by some ailment of a chronic and even incurable nature, no phthisical state supervenes, (which is unhappily in too many cases the more immediate cause of death,) provided the individual have a voluminous and catarrhal state of the lungs.

From the numerous proofs dissection has afforded me of the asthmatic state of the lungs in persons, who, having recovered from consumption, have died from some other cause, I am induced to recommend the early employment of artificial means for the healing of ulcerous phthisis. After the careful examination of at least three thousand dead bodies, and after having had under my care many thousand consumptive cases, my fixed opinion is, that ulcers of the lungs are most effectually cured, and a fresh formation of tubercles prevented, by an expansion of the vesicular structure of the lungs; which, it will be seen hereafter, is, in many instances, brought on by chronic catarrh. Before tuberculous excavations have taken place, and even after their existence has been ascertained by stethoscopic signs, there is an absence, except toward the close of the disease, of any catarrhal affection, or at least its continuance is only of short duration. I know this statement of the non-existence of a catarrhal state accompanying phthisis is opposed to what appears in the excellent work of M. Laennec; but I am satisfied of its general correctness, and that extended research will confirm my assertions.

Independently of the extensive experience obtained through my situation in the Infirmary for Diseases of the Chest, I have enjoyed the advantages afforded by no inconsiderable share of private practice, as well as a wide field of inquiry opened to me for several years at the Central Infirmary and Dispensary, an institution established, and in a great degree upheld, at my own expense for all classes of diseases; and where, from my

being physician to the first mentioned charity, I had a more numerous assemblage than is generally seen in any institution of a similar kind of patients affected with some disease or other of the chest.

It affords me pleasure to state, that my practice at both institutions has been attended by numerous and intelligent classes of pupils, who had opportunities, equally with myself, of witnessing the recovery of many consumptive persons, and of ascertaining that peculiar condition of the lungs which I have already pointed out as invariably occurring when a cure has been effected.

GENERAL OBSERVATIONS ON CONSUMPTION.

THE mortality which annually takes place in this country through consumptive disease is a melancholy truism, although its extent, familiar as it may appear, is yet imperfectly known. The ordinary estimate, and this as I shall subsequently prove far from an exaggerated one, gives one-fourth of the deaths yearly occurring in this ever-varying climate as consequent on pulmonary consumption alone. Dreadful as this amount seems, yet since, in numerous instances, patients who have laboured under chronic diseases, as dyspepsia, cancer, severe diseases of the bones, joints, &c., or any other affection by which the general system may have been deteriorated, owe the immediate cause of their death, not to these complaints, but to the super-vention of consumption, it is evident that the proportion of one-fourth is much lower than the truth. Again, considering the frequency of cases in which asthmatic, or catarrhal complaints arise in the first instance from consumption, which, though arrested or finally cured, occasions these very complaints as its consequences, I may fairly assume that the startling proposition I have laid down is corroborated by fact. To individuals unaccustomed to extended pathological researches my assertions will, at first sight, undoubtedly appear rash and hypothetical. The pathologist, who is deserving of the name, will either from his own experience be ready to acquiesce in my views, or at least will candidly endeavour, by further inquiries, to verify conclusions arrived at by the labours of years; and this at a sacrifice both of time and money, which none but the very few who cultivate this branch of science with the zeal and assiduity its importance deserves are prepared to estimate.

In addition to the reasons I have just given, to show the inaccurate statement presented by the bills of mortality, I could enumerate numerous instances in which

the real, as distinguished from the apparent causes of the patient's death, would offer conclusive testimony to my position. Frequent are the cases in which an individual will suddenly expire after violent expectoration of blood, and his disease be attributed to a ruptured blood-vessel, when indeed this hemorrhage has been consequent solely on latent and unsuspected phthisis. My readers must not misconceive me to state, that every case of sudden death from spitting of blood arises from the little-suspected presence of this destroyer; but that, in not a few instances, consumption is indisputably the pre-existing cause. It were easy to adduce further arguments corroborative of the soundness of my conclusions; but I have, I should think, stated sufficient to induce conviction of their reasonableness, if not of their entire validity.

The first questions to be considered are, to what the frequency of this disease is owing, how it is produced, and in what manner its ravages are unfortunately extended? The prevalence of consumption has long been attributed to the proverbial variableness of our climate; but the mode by which this operates upon the constitution has not been clearly explained. It seems to me, however, that the action of the climate on the system may be reduced to three distinct heads, each equally common, and equally fatal: checked perspiration, retaining the superfluous humours, and thus vitiating the fluids of the body—constant fluctuations of health, resulting from constant atmospheric changes—and dejection of spirits, caused by mental troubles. To these may be subjoined an unfortunate configuration of the body, consisting in an undue narrowness of the chest, especially in its upper part, less observable in foreigners than among ourselves. It is not necessary to dilate upon the process by which checked perspiration lays the foundation of this dreadful malady; since it must be evident to the tyro, that when those humours which pass off insensibly in a healthy state of the body are retained, and the natural functions thus disturbed, disease more or less extensive will inevitably ensue. With respect to the second of these heads, it may to the ordinary observer appear superfluous to insist upon the ill effects generated by con-

stant change of weather, in persons not only of delicate but even of robust habits ; still, obvious as these effects are, it is not quite so apparent in what they consist, or rather how they are produced. Now, when we take into consideration the peculiarly delicate conformation of the lungs, and their immediate susceptibility of every alteration in the atmosphere, we at once arrive at a resolution of the question. It is essential, in order to maintain a healthy action and proper configuration of the chest, that our inspirations should be uniformly deep and full ; but, from the great inequality of atmospheric pressure resulting from the constant fluctuations of the weather, the depth and fulness of the inspiration are exposed to frequent diminution ; and that play of the chest, which is as requisite to a healthy state of the lungs as exercise to muscular development, is consequently subject to repeated checks. Thus, owing to the want of due excitement, or, more strictly speaking, of proper exercise, the healthy functions of the chest become deranged, its expansion restricted, its action languid, and by degrees its shape alters ; so that, instead of the bony compages of the chest being forced boldly out in a somewhat semicircular form, and the sternum pushed forward, the ribs fall in, drawing the breast-bone backward to a position nearer the spinal column than is the case in its natural movement. Now, to bear out and verify the foregoing remarks, by showing how requisite the expansible power of the chest is to the healthy constitution of the lungs, I would state, as an almost invariable law, that the commencement of pulmonary consumption will be found to take place in the superior lobes of the lungs, owing doubtless to the small extension of the upper ribs as compared with the more complete movement of the lower. Another singular instance, confirmatory of the novel view I am now taking of the subject, is to be found in the exemption of asthmatic patients from consumptive disorder. From the peculiar nature of their complaint, gasping for breath, and forced to respire frequently, their lungs are ever fully exercised ; and the expansion of the chest, which follows as a necessary consequence, preserves the sufferer free from the attacks of this still more dreadful malady. To come to the third head—depression of

spirits, or mental anxiety—we shall meet with the same cause still producing the same effects. The unfortunate, who lives in the world as if he were not of it, and to whom, whether his cares be the offspring of disappointed ambition, hopeless love, or ruined circumstances, the world displays nothing but a cheerless blank—the tenant of the sick chamber, whose distemper improper medical treatment has unduly prolonged, or confirmed ; in fine, all who, from any cause, labour under prostration of strength or general debility, are prone to fall victims to the insatiable tyrant, consumption, for reasons precisely similar—inability to take inspirations of depth sufficient to keep up the necessary changes produced by the air on the venous circulation. I have adverted to another cause, which in my opinion contributes, at least in a degree, to render the inhabitants of this country more peculiarly liable to phthisis—a malformation of the chest, which, after repeated and numerous examinations that I have been enabled to make in considerable manufactories, where I had the opportunity of comparing foreigners of different countries with our own countrymen, would seem to be more prevalent in England than elsewhere. As a corollary to the above remark, I may note, that the children of consumptive parents generally inherit the narrowness of chest and depression of the ribs which characterize the victims of this malady ; and that thus the range of its influence is indefinitely increased.

Following up the tenour of the preceding observations, we shall find that the benefit usually derived from a sea voyage, or change of air, is not so much due to the removal from an impure to a purer atmosphere, *per se*, as to the stimulating effects produced on the respiratory organs, and the increased energy of the muscular powers of the chest, on which pulmonary dilatation is of course consequent. Let us compare the muscular frame, expanded chest, and robust health of the mariner, or of the husbandman, with the emaciated figure, contracted chest, and general want of vigour betrayed by the artisan of manufacturing cities ; and, on attentive consideration, we shall own that these differences are the consequences of the superior expansion and activity of the pulmonary apparatus enjoyed by the former.

I must now advert to a very remarkable circumstance, upon the propriety of advancing which I have long hesitated; yet as it serves not merely to elucidate and strengthen, but to prove the truth of the propositions advanced above, and is a phenomenon as fatal in its effects as it is singular in a physiological point of view, I should, after mature reflection, deem myself the slave of a false and injurious shame were I to withhold it. When we are the prey of other disorders, the desires are deadened, and lie comparatively dormant; but even in the last stage of consumption the love of the sex seems to increase with the decay of the strength, and the disease, while it kills, is still propagated in the future life of an unborn being. The same holds true, though in a less degree, with respect to the gentler part of the creation.

Among the many distressing cases which the medical practitioner has to encounter, the premature and rapid decline of the young of both sexes, more particularly of the weaker, is without doubt the most painful. The fragility of woman's constitution, as compared with that of man, the delicacy of her frame, her retired and domestic habits, and the sensitiveness of her mind, all contribute to render her a mark at which consumption too frequently aims his deadly darts. No sight is more painfully interesting than that of a female, on the very verge of womanhood, yielding unconsciously to the fatal decree, and, like a drooping flower, nipped untimely in the bud, graceful and lovely to the latest breath. Independently of her greater liability to pulmonary disease from delicacy of constitution, there exist other causes which increase her susceptibility in a fearful manner. The style of her dress—which, in compliance with the fantastic usages of fashion, seems devised to alter the free and graceful outlines traced by the hand of nature into a wasp-like angularity, alike injurious to the tender structure of her body and unpleasing to the eye of taste—has been often pointed out as a pregnant source of disease, and justly so. It has been already observed, that a full and free dilatation of the chest is absolutely necessary to preserve the lungs in a sound and healthy state; but how can a female, her chest compressed by an artificial support, the convexity of the ribs incapable

of being extended upward and outward, and the sternum consequently without the power of coming sufficiently forward, enjoy this requisite expansion? She is "cribbed, confined," and "curtailed of nature's fair proportion." However, to counterbalance these inconveniences, it has fortunately happened, that owing to a power she possesses of abdominal respiration, more decided in her than in the male, the unnatural restraint she has imposed upon herself is divested of some portion of its ill effects. Still, so mischievous are the consequences entailed upon woman by her adherence to this baneful part of her costume, that in consumptive cases there is this striking distinction between the sexes, that the female thus deprives herself of the great, indeed the sole chance of recovery,—a due expansion of the chest. Thus the probability of spontaneous and permanent recovery, which is attended by an increase in the volume of the lungs, is sensibly lessened to the female sufferer; and they who need most aid may be said "to take arms against themselves."

CAUSES OF CONSUMPTION.

A COLD, resulting either from imprudent exposure to the air when the body has become heated, or from the wearing of too light and insufficient clothing, is deemed one of the most general and powerful causes of consumption. Yet, in many instances, I am persuaded that the real and efficient cause is to be found in the pre-existence of latent tubercles in the lungs; and when these become softened by general indisposition, produced by the action of the cold, phthisis ensues. Frequently, indeed, the irritation occasioned by latent tuberculous disease will determine a catarrh, and the patient will be treated for this complaint without any suspicion on the part of the medical attendant of the real state of the case. Should the catarrh continue, the consumptive disease masked by it will be effectually cured: and if a cavity has been formed, this will be obliterated by the increase that takes place in the volume of the lungs. At other times tuberculous de-

posites will be found insulated, and rendered innoxious, as I shall hereafter explain, by the secretion of black pulmonary matter. I have verified these facts by numerous autopsies, and it is very recently, that, opening the body of an asthmatic individual who died at the advanced age of seventy, I found distinct traces of a former consumptive state, which, having been arrested by the supervention of asthma, had existed unknown to himself, his family, or his physician. Still, where a hereditary tendency to consumption exists, or the constitution has been previously debilitated, taking cold is most certainly a frequent exciting cause of pulmonary phthisis. The transmission of this disease from parent to child is a melancholy fact to which I have already adverted. The generic marks of this sad heir-loom may be traced in the sanguine yet delicate hue of the countenance, the unusual brightness of the eyes, the confined and narrowed waist, the sharp projection of the scapulæ or shoulder-blades, and the fragility of the bony structure of the body, not unfrequently united with a disposition to an unhealthy stoutness. In laying down the causes of consumption, it becomes requisite to distinguish between those which are direct, and the far greater class commonly confounded with them, but which in point of fact are indirect. Among the latter may be enumerated inflammation of the lungs, pleurisy, contagious eruptive fever, repelled eruptions, badness and deficiency of food, amenorrhœa, unhealthy localities, affections of the abdominal viscera, (sometimes caused by excessive drinking,) spitting of blood, constitutional syphilis, and a long list of disorders, whose sole influence in producing consumption consists in the debilitated state of the body they induce. I have said that it is requisite to distinguish between the direct and indirect causes of consumption, not that there are any that can with propriety be termed direct, but in order to impress thoroughly upon the mind the grand truth, that phthisis is, for the most part, the sequence of debilitated bodily health alone. When the general health becomes impaired, a total change takes place in the fluids and secretions of the body, and there is consequently an aberration of nutriment: on this, the formation of tubercles soon follows.

Laennec gives an interesting account of the effect of depressing passions in producing phthisis, in the case of a religious association of females, all of whom became consumptive from the ascetic spirit which regulated their minds, rather than the austerity of their diet. Confinement, most likely, contributed to this result. Since this society was bound by no vow, Laennec persuaded the members, as soon as consumption was clearly indicated in each, to change to another place of abode, and he expressly declares that nearly all who took his advice recovered. The possibility of consumption's being cured is even yet denied by many practitioners, although the light of truth is beginning to dawn upon them; and yet the above relation is a proof, that, some years previously to the appearance of the present work, the greatest medical authority on the disease had stated opinions similar to mine. A parallel circumstance has occurred, in the course of my practice, within the last two years. Two young ladies were removed from a school in the neighbourhood of London, in order to be put under my care for consumption. I ascertained that ten or twelve of their school-fellows had sunk under decline within the preceding twelvemonth: and, on inquiry, I found that the only exercise they were allowed, and this but seldom, was the prim, formal walk, two by two; which pernicious and false decorum, it is to be hoped, will soon be banished from these establishments.

To such an excess were the fantastical restrictions of the school carried, that the poor girls were not allowed to hold their heads erect, or maintain a proper carriage, being told that so to do was a sign of pride. By this enforced humility, conjoined with the radical error—want of exercise—both my young patients not only stooped, but, I am sorry to add, had contracted chests, and lateral curvature of the spine.

I should mention the sequel of Laennec's account, in order to establish more fully the coincidence between the circumstances, and to direct attention to the ill effects of such absurd confinement. He proceeds to narrate, that he witnessed, in the course of ten years, two or three renewals of the religious society, by the admission of new members to replace the loss of old ones; and that the only individuals attached to it, who withstood

its depressing influence, were the superior, the grate-keeper, and the sisters who had charge of the kitchen, the garden, and the infirmary. In addition to the exercise given by these offices, the same individuals were called upon, occasionally, to visit the city on the concerns of the establishment. This narrative requires no comment.

Many writers are of opinion that various thoracic diseases are fruitful causes of consumption; but I am satisfied that this supposition is groundless. It is merely owing to the loss of health entailed by them that the development of those accidental productions, called tubercles, takes place. To enumerate the indirect causes of consumption would be endless; for, in fact, whatever is capable of impairing the constitution is liable to produce a phthisical state. Thus mental anxiety, or any depressing passion long continued, as well as chronic diseases of various kinds, engender a consumptive predisposition. In this country the frequency and prevalence of this disease are attributed, in no small degree, to the great and sudden vicissitudes of atmospheric temperature, and the moist nature of our climate. These, as I have already explained, operate powerfully in effecting changes in the human body, more or less calculated to affect the general health; especially in those who are naturally of a delicate make, and who inherit a tendency to scrofula. Particular employments, in which dusty particles and noxious fumes are inhaled, have long been regarded as producing this disease; but experience has taught me that some catarrhal affection, and not consumption, is what most frequently supervenes, and that the former complaint is a preservative against the latter.

The distinguished French writer I have lately quoted denies that *phthisis pulmonalis* is a frequent consequence of pulmonary catarrh; which opinion approximates to, although it does not go so far as my own; but it is strange that so acute an observer, with all the facts before him—facts first promulgated by himself—should have stopped short of the truth just as he was on the point of reaching it. He clearly saw that catarrh was not the cause of consumption, and affirms, "We recognise a thousand instances of catarrh for one of phthisis."

One step further would have led him to the discovery, that catarrh was the remedy of nature for the cure of phthisis. In the same paragraph he alludes to Broussais, as supporting the once established, but I trust now exploded, doctrine of "*phthisis pulmonalis* being the consequence of pulmonary catarrh." Broussais, indeed, had the temerity, or rather folly, to assert, that a pupil of his used to bring on consumption—in fact, generate tubercles in the lungs of a dog—by irritating the trachea in some extraordinary manner, and thus producing catarrh. The contrary would happen. The catarrh would prevent the appearance of consumption. But what will not writers advance to support a favourite theory!

Contagion has been considered in the southern parts of Europe, especially in the Italian states, as a frequent source by which large families of children have been destroyed by consumption. For my own part, it has never appeared to me to spread among individuals having the same hereditary constitution, by any infectious medium; but by other circumstances operating upon an inherent predisposition to tuberculous disease, which, as I have already said, is indicated by a particular conformation of the body; such as a long neck, slender trunk and extremities, contracted chest, high shoulders, delicate and transparent complexion, weak voice, and great sensibility. The same locality and the same manner of living, no doubt, have often an influence in propagating it in certain families: and to this cause, and not to contagion, we may attribute its remarkable fatality. In my neighbourhood there are many Italian residents, who, for the most part, live huddled together in small and ill-ventilated rooms, and are apparently liable, from their peculiar and not very nutritive diet, a neglect of cleanliness, and misery and disappointment in every shape, to have a consumptive constitution, yet I have not been able to trace any case of the disease's being disseminated. Still, notwithstanding my firm belief that consumption is not contagious, I would not be understood to recommend neglect in separating consumptive from healthy persons; on the contrary, for the sake of the personal comfort of the sufferer, and to forward the chances of his recovery, I would have every precaution taken that prudence can suggest, or kindness inspire.

THE SYMPTOMS OF

PULMONARY CONSUMPTION,

LOCAL AND SYMPATHETIC.

PHYSICAL SIGNS OF THE DISEASE.

It has long been acknowledged that the symptoms on which practitioners generally rely in the incipient stage as indicative of consumption are extremely variable and uncertain. Its attack indeed is, in many instances, so deceitful that before the patient is in the least aware of his danger the case has become desperate. Again, it seldom happens that pain, or any other uneasy sensation, is felt in the part which is well known to be the primary seat of the disorder, although it results from tubercles, disseminated at first in the substance of the upper part of one, or both lungs. At other times we see cases in which its progress is latent and altogether unheeded; still a slight cough is generally the first symptom, and this is attributed to some uneasiness in the throat, produced by a common cold. After a time the cough increases, and from being either hard or dry, is followed by the expectoration of a little mucus, often devoid of colour, as in common catarrh. This is succeeded by some degree of weight and slight pain felt in the chest, along with difficulty of breathing, general weakness, and an accelerated pulse, which seldom ranges below 90; during the hot stage of the hectic fever it is generally 120. A sense of chilliness along the course of the spine, commonly experienced toward noon, is the next symptom; this is followed by an augmented temperature of the body on the approach of evening, and finally by perspirations, which usually come on profusely after midnight, and greatly attenuate the body. When spitting of blood occurs with the foregoing symptoms, or when the matter expectorated begins to assume the appearance of pus, we have strong grounds to suspect the presence of pulmonary consump-

tion. The occurrence of cough in any case, in which the general health has been impaired, ought to be regarded with no small suspicion. Cases are not wanting in which the disease manifests itself most irregularly. For instance, the usual characteristic symptoms are not uncommonly preceded, for a short time, either by mesenteric enlargement, aphthæ, severe diarrhœa, amenorrhœa, or by an affection of the larynx, attended with a slight alteration of the voice. Though in the early stages there may be some doubt as to the existence of phthisis, without the aid of physical signs, there can be however little chance of mistake in the advanced stages. As soon as hectic fever is fully established, the wasting of the flesh becomes remarkable, and rapidly increases, if perspiration, diarrhœa, and expectoration have been abundant. To me, who have been for so many years accustomed to see this disease daily, the very look of the patient is in most instances sufficient.

The nose and cheeks assume a striking prominence, and the bluish paleness and emaciated appearance of the face are remarkable, when contrasted with the suffused, and, at other times, circumscribed flush, which quickly goes and comes, together with a shining white or pearl-blue appearance of the conjunctiva of the eyes; the shoulder-blades project, so as to be likened to wings, while, at the same time, the chest is narrowed in its lateral as well as transverse diameter, in consequence of the increased convexity of the ribs, which has a greater inclination downward, and which thus likewise admits of the nearer approach of the sternum toward the back. On the upper and anterior part of the chest, the intercostal spaces appear widened and depressed, and the belly is at the same time flat and retracted;—the fingers seem lengthened, and the joints of these, as of other parts, are apparently enlarged; incurvation of the nails takes place, and where large tuberculous excavations have long existed, an actual enlargement of the ends of the fingers is observable; the neck seems elongated and impeded in its movements, and the angles of the lips are drawn back, and produce a bitter smile.

Phthisis is not difficult to be recognised in that stage in which the tuberculous mass, becoming softened, finds an opening into some of the neighbouring bronchia, and

finally leaves a cavity, whose existence is clearly indicated by its characteristic symptom—pectoriloquy. This peculiar phenomenon is generally first heard in the upper portion of the right lung, when the tubercles which first appear there are softened down; and it may be detected by applying the ear over the uppermost ribs, or over the infra-spinal fossa of the shoulder-blade. When the voice of the patient, on applying the ear, either alone or armed with the stethoscope, to that part of the chest corresponding with the supposed seat of an excavation, is heard much louder than natural, and seems to issue uninterruptedly from within, with a thrilling sound, it constitutes what is termed a satisfactory pectoriloquy, and is an indubitable sign of a tuberculous cavity; the contents of which we even hear not unfrequently by the same method of diagnosis, agitated by the action of coughing. Whenever the walls of an old, and nearly emptied excavation, are dense and firm, a severe fit of coughing gives to the ear a metallic resonance, or a sound as of some empty glasses slightly shaken against each other. If the excavations are numerous, and communicate one with another, the liquid matter within is heard changing its situation every time the patient breathes.

The plan I always pursue, and indeed a most ready one, to distinguish consumption from pulmonary catarrh, with which it is liable to be confounded, is to apply the ear to the posterior part of the chest, about two or three inches below the inferior angle of the scapula. Should the respiration be almost natural, or slightly puerile here, we may at once and early proclaim the case to be phthisical, if the patient have a troublesome cough, though he may present few of the other common symptoms belonging to a consumption. Except near the fatal termination of the disease, when the great emaciation, confirmed hectic fever, diarrhoea, and other bad symptoms manifest themselves, we have no physical sign of any bronchial inflammation; save in cases in which some progress toward recovery has taken place. When the sonorous rattle occurs before the lower lobes of the lungs are affected with tubercles, it is to be considered as a highly favourable symptom. In other cases, however violent and long the cough may be, auscultation

gives us no signs of the catarrhal state which precedes and follows complete recovery. Having daily opportunities of seeing new consumptive cases, I readily come to a conclusion, by the absence of catarrh, that they are undoubtedly consumptive, without taking the trouble to ascertain the state of the upper part of the chest; for if an individual coughs up blood, or muco-purulent matter, is subject to chills, accessions of fever, and night sweats, wastes away and complains of debility, and no catarrh is heard in the inspirations, we may be perfectly satisfied that tuberculous cavities exist. When there is a cough which is not influenced by remedies, and the sympathetic signs of consumption and the auscultatic results beneath the clavicles are somewhat unsatisfactory, while the lower part of the chest has the murmur of respiration almost natural, I should then, satisfied with the experience derived from exploring the chests of several thousand consumptive patients, unhesitatingly pronounce the case to be genuine consumption. In numerous instances, much to the surprise of my pupils, and of those practitioners who have witnessed my practice, I have pronounced a patient to have tuberculous disease in the superiour lobes, while he exhibited no look indicative of such serious illness, but had merely an annoying cough. This prompt decision after I have ascertained by the ear the sanity of the respiratory murmur, and absence of bronchial irritation in the inferior part of the chest, has generally proved correct. In some instances, obscure respiration in the upper part of the chest, arising from tubercles and pulmonary induration; in others, a tuberculous cavity, affording the most perfect pectoriloquism, has been ascertained; and, on closely questioning the patient, the symptoms he has detailed have usually been corroborative of what might be termed, if we were guided by the apparently unimpaired state of health, latent phthisis.

It were easy to enter into a more full and minute detail of the symptoms which characterize this complaint; but as my present object is to elucidate the preventive and sanatory treatment to be observed, I deem it advisable to reserve many observations of a curious nature connected with this branch of my subject. However, should I have occasion to reprint this work, I may be

tempted to enlarge the present chapter, and publish many interesting, and, as far as my knowledge extends, original facts.

I suffer this passage to remain as it stood in the former editions, as a renewed pledge to fulfil the promise thus given. The call made upon me for a new impression, as well as a pressure of literary and professional labour, prevents me from redeeming my word at present; but as I am now engaged in an extensive work on the "Diseases of the Chest," I shall have an opportunity of pursuing the inquiry through all its ramifications. There is no branch of my subject on which more contradictory opinions have been emitted. Facts themselves have been so differently described as to assume the most opposite aspects. The founder of the science of auscultative examination was induced not infrequently into error by over anxiety to complete his system; and too many of his followers have repeated his oversights, or committed fresh mistakes from inaccurate observation, and want of a proper field for its exercise.

MORBID APPEARANCES OF CONSUMPTION.

THE most common morbid appearances met with in the lungs are a peculiar species of accidental production, known under the generic name of tubercles. These, according to the different appearances they present, may be distinguished into two primary forms—that of *insulated bodies*, and that of *interstitial infiltration* or *secretion*. In the former are classed *miliary* tubercles, so named from their size, which usually corresponds with that of a millet seed, although they are sometimes found much larger. In their origin they are observed to be semi-transparent, and of a grayish colour, sometimes nearly colourless and transparent. On superficial inspection, they are apparently orbicular, but, when more minutely observed, occasional angularities and infractuositities are visible. So closely are they interwoven with the fibre of the lungs, that it is found impossible to separate them without bringing away, at the same time, a part of the former. They gradually approximate to, and unite with

each other, forming semi-cartilaginous groups or masses, which in time acquire a light straw colour, and change into a substance of the consistency of cheese. When they thus spread and unite by intussusception, they form what is technically denominated *crude* tubercles, or *yellow crude* tubercles. Their progress to this state commences with the appearance of yellow, opaque specks occurring generally, but by no means uniformly, as has been erroneously stated, in their centres. These tubercles, increasing by degrees, either unite in the manner described above, or remain, when thus converted into the crude state, separate and isolated. A strong proof of the soundness of the principle I am anxious to inculcate throughout this work, namely, that pulmonary consumption is seldom met with in individuals of large and expanded chests, will be found in the fact that these nodules, or tubercles, almost invariably commence in the upper portion of the lungs, which, by the very structure of the thorax, is their most confined part. From the summit they spread downward, and in their single formation will enlarge to the size of a hazel nut, although rarely; indeed, I consider it probable, that when they apparently reach these dimensions they are not in point of fact single, but an aggregation, so compacted as to defy separation.

A second form of insulated bodies are the *granular tubercles*, first pointed out by Bayle, who regarded them as an accidental cartilaginous formation, different from tubercles; but without sufficient reason, since, on dividing them, we find that they present the same colour and opacity as the common tubercle, and their growth evidently proceeds through the same stages: therefore, I am of opinion that they are unquestionably the same. The principal distinction between the two consists in their external form. The *granular* tubercles are roundish or ovoid, of the size of a millet seed, which they seldom exceed, and germinate singly in immense numbers over an entire lung, or its greater portion, so that even where apparently blended, the granules are found, on examination, to be entirely distinct. They differ still further, by their being transparent and colourless. Their induration and cartilaginous structure may arise, it is not unreasonable to suppose, from their remaining

during a long period without showing any disposition to suppurate, which they are sometimes however found to do.

I have stated, that one of the principal differences between the miliary and the granular tubercles consists in the latter being colourless and transparent; yet this is not an invariable distinction, since they occur at times of a grayish tint, and are not invariably diaphanous, but in conjunction with this gray colour are also semi-transparent, thus furnishing an additional proof of their assimilation with the miliary tubercle.

The second form in which tuberculous matter exhibits itself in the lungs is that of *interstitial infiltration*; this, like the first, may be divided into two classes, one of which may be denominated *gray tuberculous infiltration*, and the other *jelly-like tuberculous infiltration*. The former is found, in this the second stage of the tubercular progress, infiltrated around tubercular cysts, and incorporated, if I may use the term, with the pulmonary tissue. Occasionally it is met with in a separate deposite, independent of the previous formation of miliary tubercles, and forms large masses of a moist compact substance, impenetrable by the air. Its grayish hue is derived from the secretion of black pulmonary matter in minute particles. Softening gradually, in a manner similar to the insulated tubercle, it passes into a state of crudity, which is indicated by minute yellow and opaque points, or specks. On making a section of this mass, the matter contained in these minute specks oozes out, and there remain small orifices similar to so many holes left by the mark or prick of a pin. The jelly-like substance, termed the *jelly-like tuberculous infiltration*, is discovered in the intervals of the miliary tubercles, and is for the most part colourless, although occasionally it is tinged with red. Gradually gaining greater consistency, (says Laennec,) it becomes converted into yellow tuberculous matter; and this indeed, according to him, at times so rapidly, that, on inspecting large masses of the substance thus changed, we are often unable to find any trace of its original state: but, according to my own opinions, which have been based on observations continued for a series of years, this view is altogether erroneous, since the jelly-like infiltration is, I conceive,

the result of specific chronic inflammation. Nor does this jelly-like infiltration, or, more correctly speaking, secretion, ever become, as far as I am aware, converted into yellow tuberculous matter. Again, the secretion, of which we are now speaking, is precisely similar to that morbid deposit frequently found beneath the serous surface of the lungs, in cases of chronic pleurisy; and in chronic inflammation of the heart I have repeatedly seen the same gelatinous matter, beneath the serous investiture of the auricles and that of the ventricles, within the laminæ of the pericardium, and underneath the serous surface of parts within the abdominal cavity. These facts are strong corroborations of my opinion as to the specific chronic nature of this secretion; but when we find the presence of capillary vessels, extending themselves into this gelatinous matter, which minute vessels are also traced in the jelly-like secretion of the different parts above mentioned, I think my assertion fully borne out. To extend my proofs still further, I may observe, that, in some severe chronic diseases of the joints, I have seen a like secretion on the exterior surface of the sinovial capsule, extending itself to no inconsiderable distance into the surrounding cellular membrane.

The process by which both the insulated and diffused tuberculous matter becomes softened into a fluid state is similar. Generally, a number of small, yellow, opaque specks make their appearance in the centre of several coalesced tubercles, and in different parts of the diffused tuberculous matter, until, by degrees, the whole of the substance is converted into a uniform yellow mass, which after an uncertain period becomes softened, and is changed into thick and curdy pus. However, the consistency of this pus is by no means invariably the same, a portion assimilating to the secretion from an ordinary sore, and being thin and watery. In expediting this change in the tuberculous mass from hard to soft, the secretion from the lining surface of the membrane circumscribing it, I entertain no doubt, contributes not a little. I find in a work published by M. Lombard of Geneva that he supposes each portion of tuberculous matter to act like a foreign body on the tissues with which it is in contact, thus producing a secretion of pus

mechanically dividing the tubercle into clots ; but I conceive that this gentleman, though partially correct, attributes too much to the action of this fluid, since we find a particle, or particles of pus, contained within the solitary tubercle, and evidently not in contact with any tissue having the power of generating pus—nay, more, we find deposits of pus in the large tuberculous masses, in which the natural alveolar structure of the lungs is by no means discernible. When a secretion of pus takes place, and (partly established by a process of irritation) to an amount sufficient to effect a solution of continuity, an opening is made into some of the neighbouring bronchial tubes, or into some tubercular cavity, of previous formation communicating with them. By this compound process, according to the foregoing view, the elimination of tuberculous granules is effected. The interior of such cavities, when of large extent, has columnar bands extending across it ; these are formed of condensed pulmonary tissue, and they are sometimes coated with the tuberculous degeneracy ; it should be observed, that none of the bronchial ramifications traverse these excavations, and that the few vessels, occasionally seen within the bands, are in almost every instance obliterated. In the parietes of the large anfractuous excavations of long standing, the blood-vessels are frequently observed in a flattened state, and those that are obliterated are covered by a thin, semi-cartilaginous membrane : the bronchial ramifications, on the contrary, with the exception of those necessary for the discharge of sputa, though found obliterated, and invariably discovered to be cut off, yet would appear to have been originally enveloped by the tuberculous matter, and to have traversed the space it occupies. As soon as these cavities have discharged their contents, they become lined by a soft, thin, and nearly opaque morbid membrane, or are merely invested by an exudation, which is in some parts deficient, and varies in density. At times, we meet with cases in which laminæ of a light blue colour, and semi-cartilaginous nature, line these excavations, interspersed here and there with slight eminences, and in intimate connection with the pulmonary tissue, being continuous also with the lining membrane of the bronchia. At others, the boundaries of the exca-

vations are found without either of the false membranes, and are formed by the natural texture of the lungs merely condensed, or infiltrated with tubercular matter. In concluding my remarks on the formation of the tuberculous cavities, I must express my concurrence with the view taken by M. Bayle, of the false membrane's secreting the pus which is expectorated, instead of its being the product of the bronchial secretion. The grounds on which I rest my opinion are these—in the first place, that no bronchial affection is perceptible until the disease is drawing to a close, or unless nature attempts to effect a cure by the supervention of catarrh; and, in the second place, that, on dissection, we do not find these excavations frequently empty, as stated by Laennec, but that they generally contain no inconsiderable quantity of puriform matter, similar to the sputa which had been ejected by the patient.

The stage of my subject at which I have now arrived leads me to the consideration of *encysted tubercles*. Although seldom met with, except in the bronchial glands, yet, in at least a dozen instances, I have found these tubercles surrounded previously to softening by an accidental membranous formation, and sometimes by condensed pulmonary tissue. Still, seldom as this occurs, Nature, ever prone to discover and apply a remedy to her own infirmities, has benignantly provided that the black deposit, caused by the tuberculous irritation, shall answer every purpose of a cyst. It has often happened to me to have had opportunities of examining patients of my own, who, after having recovered from consumption, and enjoyed a good state of health for years, have expired of diseases not referable to the pulmonary organs. In many of these instances, in which ulcers of the lungs have been transformed into semi-cartilaginous fistulæ, or in which perfect cellular cicatrization has taken place, I have remarked, that such nodules of tubercles as then existed have become enveloped by black pulmonary matter, which by isolating them, and rendering them innoxious, has evidently produced the same beneficial effects as would have resulted from the encysted state. Indeed, I have reason to believe, from inquiring into the history of the cases of many persons, who in their youth had laboured under consumption,

from which they afterward recovered, and on whose demise I have been called in to examine the body, that latent nodules, in the state described above, have existed upward of thirty years. Again, in individuals in whom consumption has been arrested by the spontaneous occurrence of chronic catarrh, or by treatment adapted to render the disease chronic, similar nodules similarly situated, together with wrinkled depressions on the exterior surface of the lungs, signs of internal cicatrices, are of no infrequent occurrence. Without intending to enter too far into the debateable ground of hypothesis, I yet feel induced to observe that I regard tubercular deposition as a specific vitiated secretion, arising from an aberration of nutrition. In confirmation of this opinion, I have strong grounds for believing that tubercles of very recent date, and not arrived at a state of crudity, undergo absorption, and that upon this restoration from incipient phthisis soon follows. Thus I have indicated two modes by which recovery from phthisis occurs; the one is the reabsorption of tubercles in their early state, and the other is their insulation, even in a state of crudity, by black pulmonary matter. I now approach what I consider the most interesting portion of my subject connected with the morbid anatomy of phthisis, the mode of union and cicatrization of ulcerous excavations, which seems by no means understood. Whenever nature operates a cure, there is an extension of irritation from the lining of the cavity into the neighbouring bronchial tubes; and the consequence of this is, supposing there exist one or more cavities, in the summit of the right lung for example, (since the right is the one generally first attacked,) an emphysematous state of the vesicular structure of that portion of the lung, through imprisonment of the air in the act of expiration. Hence, through enlargement of the aerial cells, and consequent voluminous state of the pulmonary tissue, the pressure is so constantly exerted from without inward on the exterior of the cyst, that in time an apposition of the parietes of the cavities takes place, and the ulcerous excavation becomes healed by the first intention. If the healing occurs early, and the cavity is not of old date, cellular cicatrization is the consequence; but if no pulmonary catarrh supervenes until

after phthisis has existed for a length of time, the cicatrizations are commonly formed of fibro-cartilaginous lamellæ, or there is left an imperfect cicatrix with semi-cartilaginous fistula. Whenever vesicular emphysema exists, recent tubercles are rarely seen; hence it happens that fresh crops of tubercles have no disposition to appear in the cicatrized summit of the newly healed lung; but if, after recovery has taken place through this change, any circumstance should arise to injure the patient's health, the summit of the other lung, not being emphysematous, may be the seat of a fresh formation of tubercles; and the fresh successive crops of tubercles may even appear beneath the emphysematous portion of the summit of the right lung, as well as in other parts. In the progress of the disease, when unchecked, these crops proceed downward by progressive stages. No sooner has a cavity been formed in the summit of either lung, than, after an indefinite period, a succeeding eruption appears lower down, so that the appearances, presented on dissection, show the inroads of the disorder from its direst ravages down to its latest attacks. Thus, an anfractuous cavity is generally found in the summit, surrounded by tubercles in an advanced state of crudity; somewhat lower down are smaller cavities containing portions of undissolved tuberculous matter, and around them small nodules assuming the yellow appearance; beneath these the crude miliary tubercles are apparent, having their centres already occupied with yellow points; and lastly, the transparent miliary tubercles, which form the first morbid tuberculous appearance in pulmonary consumption, occupy the inferior portion of the lower lobes of the lungs. I ought here to mention that, if, after tubercles are deposited, or a cavity is formed in the summit of the lung, general vesicular emphysema arises in consequence of catarrhal affection, or of irritation spreading through the ramifications of the bronchi from the seat of the disease, there will be no disposition to the formation of tubercles. This strange and singular exception may be probably the result of the extraordinary exercise of the pulmonary apparatus, caused by the frequency of respiration inseparable from catarrh or asthma. Most truly does Laennec observe, what my own extended experience

confirms, that tubercles are less frequently met with in the muscles of voluntary motion than elsewhere; and in this we find a strong confirmation, given by the hand of nature herself, of the value of artificial means to increase the action of the lungs, and thus arrest any new development of tuberculous eruptions.

Before I conclude my observations on the morbid appearances, I deem it necessary to notice the organic changes which accompany phthisis, many of which are entirely dependant on the particular treatment to which the patient may be subjected. The intestines, more especially the small, are, next to the lungs, the most liable to tuberculous degeneration, leading to the ulcerous state, which in its turn keeps up profuse and wasting purgation. This troublesome condition may, in many instances, be avoided by a plan of treatment which the reader will find laid down in another part of this work.—More than one-fourth in a hundred adult subjects, according to Dr. Lombard, had tubercles in the intestines; but I have found, that, under judicious management, this proportion may be considerably decreased. Being desirous, however, to see how far phthisical patients were liable to this intestinal affection, I found that, out of the same number of adult subjects who came under my notice, less than a sixth part had intestinal tubercles: yet, though such was the result of my inquiry with respect to these particular cases, I cannot but allow that the relative proportion, as stated by M. Lombard, is, generally speaking, correct. Next, in order of frequency, as subject to the tuberculous state, are the mesenteric, bronchial, and the cervical ganglions; the viscus most liable to be affected after the intestines is the spleen; then the kidneys, and, less rarely, the liver. A wide difference, however, in the proportions above estimated, and in the liability of the several parts to tubercles, according to the order I have just set down, is met with in young, as compared with adult subjects. Thus intestinal tubercles are more rare in the former than in the latter, but the mesenteric, as well as the bronchial ganglions, are much more frequently the seat of this disease in children than adults: and the result of repeated examinations has proved to me, that the presence of tubercles is oftener detected in the nervous centres of chil-

dren than in those of adults. Were I to follow the bias of my inclination, I should willingly extend my remarks on this interesting branch of my subject still further; but the plan of the present work precludes me from entering upon a more detailed notice. I am thus necessarily restricted to brevity, in my observations on the principal lesions which accompany *phthisis pulmonalis*.

It is with no small degree of surprise, that I perceive it stated by a French physician of eminence, M. Louis, that peripneumony and pleurisy were found by him to occur in so small a proportion as one-tenth of the cases; whereas I am fully persuaded that, in the last stage of consumption, not less than one-fourth, nor should I exaggerate by stating the proportion as greater, display, on dissection, one or both of these diseases. Another strange error into which a medical writer of the same country, M. Andral, has fallen, is his supposition that peripneumony is common in the early stages of the disease, the contrary being decidedly the fact. I admit that partial peripneumonies, around the nodules of tubercles, are not uncommon; but the cases are rare indeed in which the disease occupies the lower lobes of the lungs, the usual seats of inflammation. Were phthisical patients so frequently affected with pulmonary inflammation as M. Andral describes, the duration of consumption would be wonderfully shortened. One diseased state or other of the mucous membrane of the trachea, of the larynx, and of the epiglottis, occurs in the same ratio as pneumonia; but these affections are of infrequent occurrence until phthisis has made considerable progress. Fortunate indeed would it be for consumptive patients to be early attacked with inflammation of some part of the great air passage, since, in such case, the progress of their disease would be effectually checked. I would here particularly draw attention to an important circumstance, which, if left unexplained, might appear subversive of the very principles and practice I would inculcate throughout this work. It may reasonably be inquired, if inflammation of the air passage, in one part or other, oppose so completely the progress of consumptive disease, how does it happen, that in numberless cases we find the first symptoms of

phthisis exhibited by the patient to consist in loss of voice, hoarseness, and, in short, all the apparent evidences of laryngeal affection, and yet the pulmonary disorder receive no visible relief? Now auscultative experience has clearly demonstrated to me that, in cases of this kind, latent tubercular disease invariably exists in the lungs previously to this aphonia; and that this very loss of voice, and accompanying hoarseness, are the results of a thickening and ulceration of the mucous membrane of the ventricles, and vocal chords of the larynx alone, which, however, do not present an obstruction to the expiration so as to excite the action of the lungs, in the decided manner effected by catarrhal, or asthmatic complaints. There exists, indeed, an essential difference in the character and effects of this distressing aphonia, and of catarrhal disorder. However, notwithstanding all the various symptoms of phthisis proceed uninterruptedly, in patients so afflicted; yet, through a subacute irritation in the ventricles of the larynx, at last producing a swelling of the surrounding mucous tissue, so as to encroach sufficiently on the area of the windpipe to cause a slight obstruction to the expiratory process, consumptive subjects of this class live at least twice as long as the generality of those whose disease is not accompanied by such laryngeal affection.

The stomach, liver, spleen, and pancreas deviate not infrequently from a healthy state. In consequence of remarking the hardness, enlargement, and other structural alteration in the liver, the late Mr. Abernethy, to whom the department of surgery owes so much, was induced to believe that consumption frequently originated in a diseased state of this organ. From this erroneous view, a mode of treatment was pursued by him, calculated rather to aggravate than lessen phthisical symptoms. By too great a reliance on the effects of mercury, he unfortunately hastened the catastrophe which he sought to avert; and gave the sanction of his high authority to a practice, which, for several reasons, could not be attended with other than pernicious effects. It is evident that he never reflected upon the causes to which this morbid condition of the liver is to be ascribed.

In consumption, the great venous trunks are always congested in a greater or less degree. The cold stages

of the hectic paroxysms, the tuberculous indurations, the partial pleurisies, peripneumonies, and the contraction of the chest which are constantly diminishing the capacity of the lungs, retard the circulation from the right side of the heart through the lungs; hence a gorged state of the *venæ cavæ*, and congestion of the liver, the inseparable consequences of the preternatural plenitude of the inferior cava, which receives the blood of this the largest gland in the system. The anatomist, being aware that the *vena portæ* carries the residual blood of the already specified organs through the liver, will readily account for the frequent occurrence of the morbid appearances that are observable after death in these various parts; since the derangement of the liver will, it need hardly be said, exercise an injurious influence on the stomach, spleen, pancreas, and the intestinal tube: nay, it is by no means uncommon to meet with the symptoms of subacute inflammation of these parts during life. The frequency, extent, and complication, however, of these lesions on dissection, are chiefly dependant on the treatment that has been pursued. Should depletion have been neglected, these morbid affections will necessarily be considerable; but should the contrary course have been judiciously resorted to, they will be proportionably rarer. I may mention, by way of corollary to these remarks, that serous effusions take place as a sequence of neglect in recurring to due depletion, and also, in many instances, as the result of debility, and are the proximate cause of death. These may occur to a quintuple extent; for example—in the brain, the pericardium, the cellular membrane of the lungs, the pleural sacs, and the peritoneal cavity. From repeated observations made by me, and which have never yet been subject to a single exception, I may lay it down as almost an invariable rule, that an œdematous state of the feet is an index of some internal effusion. Indeed, whenever I observe, after death, and before dissection, that the extremities are swollen, I feel convinced that the presence of effusion will be one of the results of the examination. As one of the complications of phthisis, I may here mention a disposition to fistula, which Bordeu states to be of common occurrence; but according to my calculation, I estimate that the proportion

does not exceed one in five hundred cases. Yet anal abscesses are far from being infrequent: on examination, however, they will be found not to deserve the name of true fistulæ. Calcareous deposits are occasionally found loose, in some large cavities of the lungs; and I entertain no doubt from having seen them in imperfect cicatrizations, that they have escaped into these excavations, owing to the destruction of their containing cicatrice by ulceration. The general formation of these deposits, which are chiefly composed of phosphate of lime, and of traces of animal matter, is not a little curious. When the process of healing is imperfectly performed, and the constitution of the individual is possibly inclined to a chalky diathesis, a calcareous secretion is substituted for the cicatrization that remains to be finished, and a cure of the part is thus completed: and I am satisfied that, in such of the bronchial glands as contain similar concretions, they supply the room of tuberculous matter, which it is by no means improbable is partly removed by absorption.

Mr. Abernethy has remarked in the heart, which is generally free from disease, with the exception of slight dilatation of the right ventricle, that the *foramina thebesii* are frequently enlarged. However, I have never yet met with any appearances to verify his assertion.

There remain many observations which I would gladly make public, on the morbid appearances observable in consumption, a department of inquiry to which I have devoted my entire professional life; for instance, empyema, resulting from the escape of tuberculous matter into the cavity of the chest, pneumo-thorax, gangrene, &c.: but, as I have already stated, the circumscribed limits and peculiar nature of my work preclude me from indulging my wishes on this my favourite theme. On a future occasion, however, it is not improbable that I may have to offer a distinct treatise on this interesting subject.

This opportunity will be presented in the work on "Diseases of the Chest," to which I have already alluded, and which I am now actively engaged in preparing.

PROPHYLACTIC TREATMENT,

BY WHICH THE DEVELOPMENT OF TUBERCLES IN THE LUNGS MAY BE PREVENTED IN PERSONS LIABLE THERETO FROM HEREDITARY PREDISPOSITION, OR A CACHECTIC STATE OF THE SYSTEM.

EARLY in my practice, when consulted by patients of an hereditary predisposition to consumption, it was usual with me to recommend a generous invigorating mode of living, and daily exercise in the open air, with a caution to avoid every thing calculated to impair the general health. If, too, it were in the patient's power to avail himself frequently of change of air and scene, I generally found it productive of considerable benefit, both in a physical and mental point of view. The advantages derivable from short excursions, or, still better, voyages by sea, always invited my recommendation when circumstances rendered them available. Impregnated as the sea breezes are with saline particles, they act, I conceive, as stimulants of the lungs to deeper and more frequent inspiration, and thus forward the enlargement of the chest, a point to which I have more than once adverted, in the course of this work, as of primary importance. They may also be regarded as possessed of a tonic power, bracing and invigorating the surface of the body, and, by continuous sympathy, exerting a beneficial influence on the viscera, especially those connected with the digestive functions. Another strong inducement to recommend a sea voyage, in the case of persons labouring under incipient consumption, is the probability of the patient's having his chest expanded in the manner described above, and thus increasing the chances of his contracting some variety of catarrh—hence bidding defiance to phthisis. With reference to a generous mode of living, it is obvious that the tendency to weakness, exhibited by individuals of consumptive constitution, calls for a method of treatment calculated to counteract the commencing symptoms. Particular rules and limitations, with respect to the dietetic management, will be specified under the head of diet. As to change of residence, a singular instance of its

preventive effects occurred some years ago in the family of a near relative of mine, formerly colonel of a distinguished cavalry regiment, who, after the afflicting loss of two grown-up daughters and a son, removed with his remaining children to Tours. Here he resided for five years; at the expiration of which period, returning to his native country, and to the neighbourhood of the place in which the disease had first manifested itself in the children he had lost, he had the affliction of witnessing the premature deaths of three other members of his family within the short period of two years.

Celsus says, that the worst air for the patient is that which has given rise to the disease; to which we may add, that to consumptive families the worst locality is that in which the disease has first betrayed itself.

While preparing these sheets for the press, I have met with a very striking exemplification of the value of distant removal, in families consumptively inclined, to those members whose circumstances have called from their native land. Out of a family, consisting at one period of eleven individuals, seven remaining here have fallen victims to consumption; while two, who, as I have been given to understand, displayed the same phthisical constitution as these, having removed to some of our distant settlements, have enjoyed an excellent state of health for many years, and have continued free from any pectoral complaint.

Of the different kinds of exercise, I would particularize running and riding as the most calculated to forward the purposes of prevention; indeed, as the best general prophylactics. After a quick and brisk run, the respiration becomes frequent and deep, and the panting that ensues by exercising the muscles of the chest, favours a healthy development of that part, and enlarges the volume of the lungs. It has been my universal practice to recommend a constant attention to this healthy exercise, in those schools I have been in the habit of attending, and to advise the preceptors to promote it by every inducement within their power; and I have never been disappointed in the results experienced. Nor are its happy effects confined to the mere expansion of the chest; by the greater portion of air thus brought into contact with the venous system

the blood becomes more effectually decarbonized, the animal heat increased, the action of the heart more vigorous, and the multifarious secretions are carried on with greater energy.

Riding, which stood so high in Sydenham's estimation, is an exercise of no mean value, for the self-same reasons, with this advantage, that it yields all the good effects of the former, unattended with its fatigue. To those, however, in whom consumption has decidedly appeared, the benefit deriveable from this mode of exercise, may, perhaps, be enhanced by the tendency to an upward motion imparted to the lungs, thus disposing to apposition the diseased surfaces in the upper region of the chest. Dr. Carmichael Smyth has advocated the utility of swinging as an exercise, and has devoted a treatise to its supposed merits. This, although he does not explain its mode of operation, undoubtedly acts in a manner similar to the foregoing, and, notwithstanding I have never recommended it, it may not be unworthy of trial as a prophylactic. A strong proof of the advantages of exercise may not unwarrantably be sought for in the probable exemption of man, in a savage state, from the ravages of this disease. Although various disorders are mentioned by travellers as having fallen under their observation, I do not remember, in the course of my reading, to have met with any notice of consumption, recorded by those who have mingled with the savage tribes of either the old or the new world; at least, among the more active races of uncivilized man. Indeed, it would be wonderful were the case otherwise. Dependant for their subsistence on incessant vigilance and vigorous exertion; constantly engaged in the toils of the chase, or animated to activity by the animosities ever subsisting between neighbouring tribes, however they may lapse occasionally into habits of sloth and indolence, their life from the cradle to the grave must, generally speaking, be calculated to call forth and perfect every bodily energy. Free from the restraints which are the unavoidable consequence of a state of superior intelligence,—neither confined to the manufactory, nor chained down to the desk of the counting-house, untrammelled by dress, and uncramped by the various devices to which either fashion, or the force of habit,

renders us subservient despite the dictates of reason,—the savage possesses at least the uncontrolled use of his limbs ; and the symmetry usually observed in him is perhaps the best index of the health he enjoys. If, too, we extend our course of reasoning to the inferior race of animals, and observe the differences existing between them in their wild and domestic condition, we shall find a singular analogy between them and man. To go no further than the harmless creature, the rabbit, I have found, in the course of my researches in comparative anatomy, that this animal frequently dies of consumption, in its tame state ; but I never met with an instance of the kind in the wild rabbit. Perhaps the benefit of exercise cannot be better exemplified than by way of contrast. Swine, proverbially the most indolent of animals, are also the most subject to tuberculous disease ; hence the derivation of the word *scrofula* from the Latin *scrofa*, a swine ; and consumption and scrofula are identically the same, both resulting from the presence of tubercles. To pursue the analogy, another strong instance of the force and good effects of exercise is observable in the race-horse, the hunter, and indeed in all of this class that are subject to frequent and active exertion. These seldom or ever, I believe, are found to have tubercles in the lungs, so long as they are kept constantly employed. Many illustrations of this nature might be adduced, but sufficient has been said to enable the reader to extend this comparative inquiry, and to confirm the high value which I set on the effects of judicious and well-regulated exercise. In additional confirmation of my reliance on mechanical modes of exercise, as prophylactics, I proceed to relate a few out of numerous cases of the kind I find recorded in my notebook.

CASE 1.—Some few years back I was called in to see the eldest son of a family of rank, a boy of twelve years of age, who, when I first saw him, was in the last stage of consumption, to which a younger member of the same family, whose case I had the opportunity of witnessing, had previously fallen a victim. As was expected, the case terminated fatally ; and on examining the body, independently of the diseased state of the lungs which usually occurs in consumption, the serous surfaces of

the chest, as well as of the abdomen, were studded with innumerable tubercles. Some of these, seated in the peritoneum investing the intestinal tube, were of large size, and in a state of crudity; and I traced two minute openings in the ileum, (formed, I have reason to believe, by softened tuberculous matter,) through which liquid fœcal contents were diffused within the abdominal cavity. This part, during life, was of ascitical magnitude, and fluctuated on percussion, but was almost devoid of pain. He had vomited on two or three occasions considerable quantities of liquid matter, emitting a fœcal odour, and similar in appearance to what I afterward found deposited in the peritoneal sac; and subsequent to each vomiting, a perceptible reduction in the magnitude of the abdomen took place. This circumstance would induce me to suppose, judging from the peculiar smell and appearance of the ejected fluid, that a portion had been returned from the abdominal cavity into the intestinal canal, whence, by inverted action, it reached the stomach to be discharged by vomiting. The same appearances, in regard to extensive tuberculous deposite, with the exception of the intestinal perforation, were, I was given to understand, presented in the body of the younger brother, whose death, I have already mentioned, preceded that of his elder. From the delicate health of the remaining members of the family, two especially, joined to the foregoing signs of highly-charged scrofulous habit, it was apprehended by their nearest relatives that the disease would successively pervade the whole family. One, however, I felt assured, from her having had for two years a pulmonary catarrh, would be exempt from the dreaded visitation. Following up the plan which I had ever found so eminently serviceable, I immediately recommended them to commence a course of inhalation. For this purpose, I ordered that tubes, of diameters varying with the respective ages of the patients, should be prepared, through which they were directed to respire twice a day; and the time for this process was gradually extended, until it occupied half an hour morning and evening. By pursuing this plan of treatment their chests gradually enlarged, their health became surprisingly amended, and a regularity of bowels, without the aid of medicine, was soon established.

It may here be advisable to explain in what manner the simple process of inhalation, while it expands the pulmonary apparatus, at the same time regulates the most important of the visceral functions. The mere expansion of the lungs in the first instance tends indirectly to remove congestion of the liver, and also of the stomach, spleen, pancreas, and intestinal canal, all dependant on the more free circulation of the blood in the former. The biliary as well as the great salivary secretion is hereby promoted to a healthy activity. Such morbid irritability of the mucous membrane of the stomach, as may be present, productive of indigestion, is removed; the chyliferous absorption belonging to the small intestines, so indispensable to life, is actively carried on; and the injurious retention of excrementitious matter, in the larger intestines, is obviated by increased mucous moisture, and accelerated peristaltic motion. It were easy, did I deem it essential, to point out at length the beneficial effects produced on other secretions, and to explain the mode by which inhalation acts upon that of the kidneys; but sufficient has been stated to enable the medical man to draw his own deductions in these particulars. To bring the history of this family case to a close, I have the pleasure of saying, that a perfect restoration has attended my endeavours, and that at this moment these, my former patients, are enjoying all the blessings of health.

CASE 2.—A young gentleman was brought to my house, by the secretary of an incorporated literary institution in Lincoln's Inn Fields, labouring, his friends feared, under incipient consumption. His conformation evidently predisposed him to phthisis; and his chest in particular was singularly narrow and slightly deformed. I laid down the plan which I conceived it would be most advisable for him to follow, and pointed out the necessity of strict adherence to my directions. Inhalation, of course, formed a prominent feature in the treatment to be observed. It so happened, that I had only this solitary opportunity of prescribing for him, although I could have wished to see him from time to time, since there are circumstances which occasionally render it expedient to suspend inhalation for a short period, and to have recourse to local and other treatment. Not-

withstanding the want of this opportunity might be considered unfavourable, it so occurred, to my great satisfaction, that meeting the gentleman who had introduced the youth, about eighteen months subsequent to his consulting me, and of course inquiring into the state of his health, I found that he, having punctually adhered to my instructions, had not only overcome all his consumptive symptoms and been restored to robust health, but that his chest, formerly so flat and confined, had altered in shape, was considerably enlarged, and was, to use the expression of his friend, perfect symmetry.

CASE 3.—Two young ladies, of adult age, were brought to town by their mother in the middle of the year 1832, for the purpose of taking my advice. Four of her children had, she stated, been attacked by consumption, within a short period of time, and had fallen a prey to it. Both, when I first visited them, had a short hacking cough, with undefined pain in the chest. In the eldest, who was in her nineteenth year, the murmur of respiration was imperfect in the top of the right lung; percussion also, on the centre of the clavicle of the same side, yielded a flat sound. My impression from these signs was, that a tuberculous deposit had already taken place. Bronchophonism was distinctly heard by the naked ear; and it was plain, from the absence of any variety of pectoriloquy, that no softening of the mass, so as to form a cavity, had occurred. With respect to the other sister—since the sound of her respiration was natural, and no bronchial affection whatever was indicated, yet as she had occasional cough, and had had, as I was informed, slight hæmoptysis—I conceived that a few solitary tubercles might possibly exist in her lungs, irritating the pulmonary tissue like the thorn of Van Helmont. These symptoms considered, I commenced with local blood-letting, and the exhibition of nitre in doses of a scruple, &c.; after which, my chief reliance was on inhalation. They persevered in a course of this for some months, inhaling, according to my customary directions, twice a day, varying the diameter of the tubes employed, since occasionally pain arose from the expansive process being too powerful. Indeed, the liability to pulmonary engorgement, from using tubes of too small a diameter, points out the necessity for the

constant superintendence of the practitioner, skilled in the auscultative exploration of the chest. One circumstance, perhaps, should not be passed over, as exhibiting an additional proof of the good effects of inhalation on the general health. The periodical uterine secretion of the elder of these young ladies having been suppressed for some months, she recovered in the course of a few weeks the usual feminine habit, which subsequently continued underanged. Nothing of further moment occurred in the course of these cases. Continuing gradually to improve, the younger became perfectly restored to health; and the elder, although the respiration in the upper lobe of the right lung is not so perfect as I could desire, still, from the general expansion which the pulmonary tissue underwent in all other parts, and the probability that in time black pulmonary secretion will form around the existing nodules, so as to isolate them in the manner I have fully described in the chapter on morbid appearances, I consider as entirely free from all danger of any new formation of tuberculous matter.

The value of exercise, in checking and removing symptoms of incipient phthisis, is, in my opinion, so great, that I am induced to dwell at some length upon this part of my subject. Those musicians whose profession it is to play upon wind instruments are in general supposed to be peculiarly subject to pulmonary complaints; perhaps not inaccurately so: yet, I am not aware that any detailed or circumstantial explanation has been given of the mode through which injurious effects arise from the use of such instruments. Whoever will take the trouble to watch attentively a player on the flute, or clarionet, &c., will find, that although the performer seemingly inspires and expires frequently and fully, yet that, in point of fact, he often makes several consecutive expirations to one inspiration. Thus his breathing, so far from being advantageous, and so far from developing the lungs, as I have previously declared well-regulated mechanical exercise will ever do, is indeed so irregular and furtive, that it produces effects entirely the reverse, narrowing the chest, and confining the volume of the lungs: indeed, it favours that diminished size of the respiratory apparatus which engenders

a tendency to consumption. What I may not inaptly term a wholesale case occurred some years ago, illustrative of the foregoing remarks. The leader of an itinerant band of musicians applied to me in behalf of himself and followers, to know what method they should pursue to avert the threatening appearances, which they considered would ultimately lead to confirmed pulmonary affection. I advised, that after their musical entertainment for the time being was concluded, they should always take a long and quick run, or else carry walking sticks, perforated longitudinally, through which they might respire, and thus compensate their previous irregularity in breathing. Ludicrous as the idea may appear, of a set of men scampering off, after an exhibition of their scientific powers, these poor fellows had the good sense to perceive the advantage of pursuing my advice; and I have subsequently learned that they have experienced its happy influence. It has been my uniform practice indeed, in similar instances, to recommend a similar proceeding, and the benefit has, I trust, been widely diffused. Before proceeding further in this chapter, it may not be irrelevant to notice, that protracted indisposition, whether arising from mental or bodily causes, is productive of diminution of the chest; the general debility causing local muscular weakness, and this being more particularly the case in the muscles of inspiration. The lungs, thus compressed, are of course favourable to the development of tubercles; as well as to pleurisies, which, according to a great authority, M. Laennec, are the cause of permanent contraction of the chest in consumption. But it should be borne in mind, that this writer is utterly mistaken when he asserts that the endeavours of nature to cure phthisis originate the same phenomenon.

The truth is, the contrary is the fact; since, on examination of the lungs of persons who have recovered from consumption, we almost invariably find their lungs voluminous, and their chests of increased capacity.—When individuals labour under chronic or incurable diseases of any kind, whether medical or surgical, and the constitution is much impaired by the continuance of ill health, consumption is peculiarly prone to manifest itself: but should they have been subject for any length

of time to catarrhal, asthmatic, or cardiacal affections, I have long observed that they enjoy a complete immunity from tuberculous attacks, and hence cannot become consumptive. Therefore, in imitation of my own practice, I would earnestly recommend the physician, as well as surgeon, to exercise the chest by means of inhalation; and the result would be to ward off any secondary complaint, such as consumption, which so commonly supervenes to shorten lives that otherwise might have been indefinitely prolonged. To strengthen my assertions respecting the beneficial results arising from the manifestations of catarrh, in persons suffering from incurable complaints, I could give from my case-book, and indeed from memory as well, innumerable cases confirmatory of my views: but a few will suffice to show that I do not exaggerate its happy influence.

CASE 4.—Sarah Jackson, aged forty-eight, applied four years ago to the Infirmary for Asthma, Consumption, &c., in consequence of consumptive symptoms; such as hectic fever, frequent pulse, violent cough, with copious puriform and sometimes sanguineous expectoration, profuse nocturnal perspirations, and, as might be expected, great emaciation and debility. Her habit had long been feeble: this had been in the first place induced by a cancerous affection of the womb, destructive of the cervix and a portion of its body, and which had produced malignant ulceration of the upper part of the vagina, accompanied with racking pain, fetid sanies, and other exhausting discharges attendant on schirrous uterine disease. It was not till she had been an out-patient at the infirmary for some time that I was made acquainted with the above alarming cancerous state. This of course appeared a fearful complication of disease, and, in fact, made me regard the case as almost hopeless. However, by means of small local bleedings, at times from the chest, and occasionally from the neighbourhood of the uterus, together with the exhibition of saline medicines, conjoined with tartar emetic in small quantity, and aluminous and other injections for the womb, I succeeded in entirely removing her constitutional disorder, and in greatly mitigating the disease of the chest, as well as that of the uterus. Now, whether it was owing to her own imprudence, in im-

properly using the injections too cold, or from incautious exposure to the weather during the prevalence of easterly winds, a severe bronchial affection took place, in which was well marked sonorus and sibilant rattle.— Excepting mucilaginous and demulcent drinks, with small doses of nitre, she had very little medicine administered to her. Indeed, I hailed this adscititious complaint, notwithstanding her much embarrassed breathing and distressing cough, as the most fortunate circumstance that could have befallen her; and was therefore inclined to let nature work, carefully watching every indication, and desirous to assist rather than to interfere with her operations. It is superfluous to enter into all the minutiae of this patient's treatment; suffice it to say, that a permanent catarrh was established, thus at once arresting the progress of consumption, and daily adding to her security from all danger of relapse. Nor was this the sole advantage resulting from the super-vention of a bronchial complaint. By the improvement which the patient's general health experienced, from the successful termination given to the consumptive symptoms, the uterine malady has increased but little, which, aggravated by the supervening phthisis, would, without the ingression of the last of this ternary complication, most probably have long since proved fatal. Thus, in this instance, as well as in many others of no dissimilar nature, which it were easy to adduce, we have proof corroborative of the fact, that the supervening catarrh, occurring spontaneously, will not only give a favourable turn to the course of consumption, but be instrumental in delaying the advance of an incurable disease. So well defined is this case, and so strong a proof does it afford of the efficacy of the practical treatment which it is my chief object to point out, that I deem it necessary to demonstrate beyond doubt the consumptive condition of this patient; and I therefore am anxious to add, that my opinion was not grounded merely upon the common symptoms of phthisis, but upon the more certain indices afforded by physical phenomena. This female, whose employment is that of a nurse, has, I understand, communicated her improved health to Mr. White, surgeon to the Westminster Hospital, and also to Dr. Borett, a Polish physician, and

others, who, in conjunction with myself, carefully ascertained the nature of her pectoral as well as uterine disorders, and can bear testimony to the order in which they occurred.

CASE 5.—Mr. C. W., from the neighbourhood of Rumford, applied to me in February, 1828, for a complaint of the chest. He had been for some months expectorating muco-purulent matter in considerable quantities; through this, as well as profuse perspirations, and an occasional febrile state, he had become excessively debilitated and attenuated. After pursuing my advice for a short time, he lost his more formidable symptoms; and there were merely left slight cough, and an oppressive wheezing, which, at times, would compel him to leave his bed about two hours after midnight. Though he considered himself well for nearly five years after this, I have nevertheless grounds for belief, as this was a cured consumptive case, and as he exhibited slight symptoms of emphysema, that his lungs must have been more or less affected throughout this space of time with some bronchial irritation, though he had but little cough. Being called in to this gentleman about three years ago, as apprehensions were entertained, from certain pulmonary indications, of his relapsing into the state from which I had formerly relieved him, I ascertained by the ear that a bronchial affection had been established, which, from my recollection of the peculiarities of his ailments, and my having regarded his case as one of cured consumption, I felt satisfied, previous to auscultation, would prove to be the fact. Pointing out this condition of his patient to that most intelligent practitioner, Mr. Sewell, I assured him that he need not have contemplated a recurrence of consumption, though such might not unreasonably be apprehended from a malignant schirrous affection, which had made its appearance a year previously, and had committed extensive ravages on the rectum, perineum, and adjoining parts, for which the most celebrated surgical advice was taken. From the ill health induced by the foregoing destructive malady, the chances of his having consumption were considerably augmented; but owing to the protection afforded by chronic catarrh, as I have often reiterated, the patient is placed beyond the

reach of that most common and fatal of human diseases—pulmonary consumption.

CASE 6.—However Anti-Malthusian the doctrine may be, yet as it is in accordance with the law, and may likewise be regarded as a special dispensation of nature, I do not scruple to advance it as my opinion, that many cases of threatened, or indeed actual consumption, in the female, may be warded off by a timely compliance with the first benignant ordination given to our first parents—marriage. In order fully to explain how the benefit arises, and in what manner the blessings of matrimony,—for such I believe, despite the late talented professor just alluded to, they are still called,—operate, I shall cite one from a variety of similar cases. Mrs. E. S., aged thirty-eight, made application to me, in the winter of 1827, for a painful state of the chest, with oppressed breathing and severe cough, with expectoration of blood, mixed with frothy, yellow matter. She likewise complained of profuse perspirations, followed by emaciation and extreme debility. Among other physical signs, pectoriloquism was distinctly heard by the naked ear underneath the second and third ribs of the right side. When she first came to me she laboured under much depression and anxiety with respect to her state, not only from her having lost two sisters by the same disease, but from her husband's having inadvertently communicated to her the opinion of a respectable medical practitioner of Great Ormond street, who, to use her own words, had unreservedly stated to him, "that no power on earth could save her life." My opinion at first was also of an unfavourable kind. The experience of a few days, however, since the most distressing symptoms of the case yielded to remedial treatment, induced me to entertain hopes. These hopes became certainty when I discovered that she was in a state of pregnancy, for I had long noticed that the constantly increasing magnitude of the womb exerts a powerful influence in suspending, and still further in curing tubercular phthisis. This circumstance is not brought forward as any novelty to the profession, but simply as affording an opportunity of explaining the process by which the gravid uterus accomplishes so favourable an end. The hitherto received opinion is, that a diversion

of morbid action from the lungs takes place, through the necessary afflux of sanguineous fluid to the womb and its embryo, thus arresting disease ; but I conceive that this mode of accounting for the cures effected is utterly vague and unsatisfactory. In such cases, the suspension of existing disease in the lungs, and indeed the permanent removal of the constitutional symptoms of phthisis, are no doubt effected by the encroachment made on the chest from below upward by the pressure beneath the diaphragm, which has the effect of bringing in apposition the inferior and superior surfaces of the pulmonary cavities, so as to unite them. This view of mine is borne out by the *post mortem* appearances which I have witnessed in those who had recovered from consumption while in a pregnant state. In not a few examinations of this kind, I have noticed that the internal cicatrizations of the healed lungs were transverse or horizontal, thus proving that the progressive pressure upward, in the direction of the diseased summit, had been the sole cause of that union to which the disease has, in a great measure, owed its cure. This mode of explaining the cure appears to me much less hypothetical than the generally received doctrine, since it is based on proofs derived equally from anatomical and pathological research ; yet I do not wholly dissent from the customary view of the subject, the cure being indisputably, in many instances, consequent on the determination of blood to the uterus, thus diminishing to a certain extent a local disease, and allowing, by this diminution, the supervention of subacute bronchial irritation. This last accident is, in no slight degree, perhaps, favoured by the horizontal enlargement of the lungs, especially of the lower lobes. Though instances of recovery, attendant on pregnancy supervening to consumption, are numerous, yet as cases notwithstanding happen in which a cure has not been effected, I think it essential to indicate one or two reasons for such occurrence.

First, we cannot be surprised, when pregnancy takes place in an advanced stage of the disease, at not meeting with the usual effects, and a second reason that may be assigned for death following what might otherwise be regarded as a case of cured consumption, may be found in the absence of chronic catarrh ; or in the

production of a fresh crop of tubercles by ill health, after cicatrization has taken place. Having thus purposely digressed, in order to explain my views of the sanatory influence of pregnancy, I hasten to the conclusion of the present case. Since Mrs. E. S. first became my patient she has had four children, now alive; and with the exception of a discharge of blood and muco-purulent matter, that continued for a week, about five years ago, possibly expectorated from some imperfectly healed cavity of long date, she has had no recurrence of her former formidable complaint. During the last two years she has been free from cough; and, with the exception of slight catarrh, for a time attended with abundant pituitous discharge, she is in the enjoyment of better health than she has been in for the last ten years. At present I consider her as perfectly secured against a relapse into her former state, for two reasons—the partial cicatrizations which evidently took place during pregnancy, and the existence of emphysematous, and voluminous lungs—the first discoverable by respiration denoting that state, and the second being its certain consequence. It cannot, I think, be wondered at, that having repeatedly witnessed the fortunate results arising from the pregnant state, I should have some years ago ventured to suggest to the unmarried consumptive female the propriety or necessity of matrimony where from the circumstance of existing reciprocal attachment such an engagement could be happily entered into.

I have previously mentioned that asthmatic, catarrhal, and cardiacal individuals are exempt from all danger of pulmonary consumption; and to these I may subjoin persons affected with diseases of the convulsive kind, such as hysteria, epilepsy, or, in truth, all in which a prolonged, forcible retention of the breath is frequently seen. This circumstance, in patients of this description, must be accounted for in the manner already explained, when dwelling upon the benefits arising from the mechanical extensibility of the air cells by inhalation.

Before bringing these remarks on the prophylactic treatment of phthisis to a close, there remain a few general observations, which spring as much, or nearly so, from experience in my own person, as from my at-

tention to the cases of others. In the foregoing portion of my work, I have advised a generous mode of living, as among the preventives of this disease; and in peculiar circumstances I would even recommend the use—of course the cautious use—of wine, sound home-brewed malt liquors, and occasionally of other stimulants. I now allude to a failure of health, the forerunner of consumptive attack, induced by trouble of mind, to which I lament to say numbers fall lingering victims. It has been my misfortune to witness, in the course of my practice, but too many instances of the maladies engendered by “a mind diseased.” Well has the poet of nature remarked this, among his aggregate of human ills, when he mentions “the law’s delay,” than which I know not a greater destroyer of peace of mind, and with it, of the body’s health. We are accustomed to look back with horror on the proceedings recorded by historians as having taken place in that iniquitous court which went under the name of the Star Chamber: how then, judging by analogy, will our posterity execrate the records left them of the practice of the Court of Chancery! They will there read a piteous tale of justice withheld,—of hope, the brightest boon of heaven, extended and protracted, until to look forward is to exclaim, with Lear, “O! that way madness lies.” The ghastly train of diseases, consumption, cancer, and other fell destroyers of the human race, which I have seen brought on the wretched victims of the procrastination, until recently the characteristic of this court, leads me, in common with the general voice, to reflect with gratitude on the change that has been effected by the wise energy of one master spirit. Had the reforms, introduced by him, been adopted even a few years sooner, how many a fair fabric of human happiness would have been spared that now lies dismantled and overthrown! To return from this digression. On occasions when the mind is kept constantly on the rack, I consider it not unadvisable to allow a comparative freedom in point of living; but I must add a caution, with respect to patients of the weaker sex, to whom this freedom, limited as I have stated it should be, must be still more sparingly granted. The difference in strength, both mental and physical, calls for strict attention to this distinction.

TREATMENT OF CONSUMPTION.

THERE are but two modes by which we can hope to cure this disease: the one is by rendering it chronic, and the other by artificially enlarging those portions of the lungs which are pervious to air. In the first we endeavour to effect an absence of constitutional disorder; but, after this change is effected, there may still remain for an indefinite period one or more cavities uncicatrized, with lining membrane, partly semi-cartilaginous, or of such condensed and insensible structure as to be productive of little inconvenience, if we except occasional cough and some hæmorrhage, which last occurs at long intervals, and rarely to a great extent. In the second, there is produced what is invariably seen when nature or art has effected a cure—an enlargement of the vesicular structure of the lungs, and subsequently a gradual healing of the tuberculous excavations.

It has always been my great aim to put an end, as early as possible, to the symptoms of hectic fever. This I have successfully accomplished, in many instances, by employing moderate anti-phlogistic means; among which, I may first mention general and local blood-letting. It is astonishing how great is the relief afforded by even six or eight leeches, applied to the chest while the patient is labouring under the hectic paroxysm. It was early my practice to bleed two or three times from the arm, as we thus interrupt the noon-day chills, evening fever, and the nightly perspirations: and when the abstraction of blood by the lancet is employed early, (acute inflammation being absent,) and in a quantity rarely exceeding five or six ounces at a time, weakness is seldom complained of; on the contrary, the greatest relief is experienced. The weight and erratic pains of the chest, distressing cough, shortness of breath, and irritability of the stomach, are greatly lessened. It has long appeared to me that the necessity for the abstraction of blood has not been judiciously considered; otherwise, I should not be consulted by so many consumptive

individuals, in whom the disease has gone on unpalliated by any sanguineous depletion.

This consideration becomes the more important when we reflect how liable to produce a certain degree of venous congestion are the chilly fits, which are of daily occurrence, as well as tubercular deposits and engorgements in the lungs themselves, the bulk of which is gradually undergoing a diminution by the contraction of the chest. The blood of the right ventricle of the heart not finding a ready passage through the lungs, afflicted as above mentioned, causes a preternatural quantity of the same fluid in the adjoining auricle, and especially in the two great veins opening into it. The consequences of this state are head-ache, owing to interruption of the free return of blood from the head; pulmonary engorgement, through the difficulty the bronchial veins experience in transmitting their blood, by either its direct or circuitous course, into the vena azygos; and serious derangement, or actual disease, of the most important viscera of the abdomen. The superior cava, preternaturally full of blood, will, by retarding that fluid in the jugular veins, produce pain in the head; and, by a similar interruption to the circulation of the vena azygos, besides interfering with the free return of the blood into the bronchial veins, it will in some degree impair the activity of the kidneys; the due return of the effete blood of which organs depends on the freedom with which it is conveyed from the vena azygos into the vena cava superior.

The moderate abstraction of blood, occasionally, prevents that congestion in the floating viscera of the abdomen which gives rise to diarrhœa, irritability of the stomach, and effusion from the serous membrane investing them, which at times occurs. It has, indeed, an excellent effect in securing freedom to the hepatic circulation; and thus all the parts, whose venous circulation passes through the liver by the vena portæ, are long preserved in a state of integrity. Besides the great exemption from diarrhœa which this practice affords, the colliquative perspirations likewise are either greatly lessened, or for no inconsiderable period wholly removed. Where the disease is not of such long duration as to be attended by much emaciation and debility, I would advise general blood-letting, to the extent of four or six

ounces, to be performed three or four times during the presence of hectic fever ; allowing, of course, the patient being better, a reasonable time to elapse before he be again subjected to this operation. In consumption, particularly in its early stage, I find patients generally say they are strengthened, rather than weakened, when four or five ounces of blood are taken at intervals of a few days. After the constitutional fever has been in this manner interrupted, if it seems shortly after disposed to return, we may again ward it off by applying six or eight leeches on the summit of the chest just beneath the clavicles. In my opinion, they are best applied on the upper part of the chest, since it is there that the tubercular affection first commences. By thus alternating the general and local bleedings, we husband the patient's strength, while at the same time we mitigate the most distressing symptoms of his disorder. Cases are at times met with, in which the lancet may be used with some degree of freedom. For example : when signs of pleuritic or pneumonic inflammation are present, and when hæmoptical discharges are attended with much oppression, pain, and heat in the chest. I have not seen it noticed, that, in the absence of acute inflammation, the blood taken from the arm of consumptive persons is peculiar in its crassamentum ; it is never cupped, and its upper surface has a somewhat greenish, semi-transparent, gelatinous appearance, with yellow filaments here and there interspersed. This extraordinary and characteristic state of the blood has been for years noticed by the attentive apothecary, so long attached to the Infirmary for Diseases of the Chest. It is indicative of an actual and inappreciable change in the circulatory fluid. When the muscular parts and integuments about the chest are greatly attenuated, local bleedings are best accomplished by leeches, rather than cupping—the tediousness of the former may be obviated by picking them off when they are tolerably full. Instead of fomenting the bites as is customary, which practice exposes the patient unnecessarily to cold, I advise some lint or old linen to be immediately applied, and not removed for at least half an hour ; by this means, the blood absorbed acts as a fomentation to encourage a sufficient effusion.

I have ascertained, by auscultative examination, that when sanguineous sputa make their appearance in chronic or latent phthisis, they not unfrequently result from inflammation of the lower lobe of one or both lungs, causing an unusual degree of congestion in parts remaining unhealed ; my advice is, therefore, that a careful exploration of the chest be made, both by the ear and percussion, in all cases, however unequivocal be the common symptoms of inflammation of the substance of the lungs. When we have fully satisfied ourselves that the spitting of blood is not the result of any primary change in the vessels coating tuberculous excavations in the summit of the lungs, but that it is owing almost wholly to some engorgement, or sympathy with portions of the lung beneath in a state of actual inflammation, it will be found that an effective abstraction of blood, to the amount of fourteen or sixteen ounces, will assist in bringing the patient in a short time to his wonted state of health. Should this be insufficient, the bleeding may be advantageously repeated after a couple of days. But it must be premised that any active treatment of this kind employed without discrimination, particularly when much tuberculous disease is disseminated through the lungs, and has formed numerous cavities which have seriously and manifestly impaired the general health, would in most cases be productive of the greatest evil, and possibly soon give rise to œdema of the lungs, or some other watery effusion elsewhere. Few consumptive cases terminate fatally, without being preceded by some dropsical state of the lungs. This generally occurs when the feet and legs begin to swell, and is a period too when leeches even are rarely admissible.

I shall now close my observations on bleeding with mentioning that blood drawn from the arm, in any inflammatory affection of the chest co-existing with phthisis, appears with a cupped and buffy coat, and not with the peculiar appearance already noticed by me as attending the latter disease in its unmasked state. Not unfrequently the close of existence in the consumptive individual, already reduced to the lowest condition of weakness and emaciation, is preceded by some pneumonic and pleuritic affection which admits of no permanent relief by blood-letting.

INHALATION.—I am well aware that many objections may be started to this practice from prejudice, or inefficient observation. Strange to say, the principle on which this mode of treatment operates beneficially appears to me quite unknown to medical men. It is supposed, that the inspiration of medicated vapours has in many instances proved useful by allaying cough, and by producing some healthy and unexplained change in diseased parts of the lungs, as well as on such adventitious surfaces as are formed after the softening, or discharge, of tuberculous matter: but the permanent advantages which inhaling is capable of affording are for several reasons unsuspected by the generality of practitioners. First, because the period during which persons are directed to inhale is generally too short to produce either a catarrhal or an enlarged state of the lungs, one of which conditions is absolutely necessary in order to suspend, or cure consumption: and, secondly, the apparatuses employed for this purpose are not constructed scientifically, so as to facilitate those physical changes which it is desirable the chest should undergo. Proper inhalers ought to be so arranged as to offer some slight impediment to free expiration; which can be effected by having the vessels which are to contain the materials to be inhaled large enough to hold about two quarts of liquid, and with covers perforated by two apertures; one of very small size, serving as an air-vent, the other furnished with a flexible or straight tube of narrow diameter, and at least five feet long. For the end of the tube destined to be received between the lips, we may have mouth-pieces formed of ivory or bone, each of them having an aperture of a different size. The length of the tube will save the patient's countenance from being heated by too close an approximation to the body of the apparatus, when filled with warm water; besides, it contributes, together with the small air-vent, to retard the free egress of air from the lungs, which I shall presently show constitutes, in no small degree, the great virtue of inhalation.

An extraordinary, but most undeserved reputation is bestowed on various substances, mechanically received into the lungs in a state of vapour. Among these I may mention tar, iodine, chlorine, hemlock, turpentine, and

many other articles of a stimulating, or sedative nature. I attach little or no importance to any of them. If benefit is derived, it is, in almost every instance, in consequence of some such effects as the following :—Pulmonary expansion, to a degree sufficient to exert an influence in bringing into contact the surfaces of those early cavities which are almost invariably formed in the summit of the lungs ;—pulmonary catarrh, or its common consequence, a vesicular emphysema, in both of which the lungs acquire an unusual magnitude ; in the latter more especially.

Neither perfect recovery, nor indeed exemption from the danger of relapse into a consumptive state, is found to occur, except in very rare instances, unless the pulmonary organs become naturally, or artificially, voluminous ; which not infrequently happens by the supervention of some catarrhal state of the larynx, trachea, or bronchial tubes. It is a most fortunate circumstance for some affection of this kind to occur early, as it never fails permanently to arrest this most fatal disorder. When the lower lobes of the lungs are entirely free from tuberculous matter, (which is often indisputably the case for a considerable period, unless there be strong hereditary predisposition,) and though there exist, at the same time, cavities in the superior part of one or both lungs, clearly indicated by perfect pectoriloquism, there is almost a never-failing hope of recovery to be entertained, provided an emphysematous sound can be heard. In fact, I never knew a consumptive person who did not lose all his formidable symptoms and regain health, when an emphysematous, or a semi-asthmatic change had early taken place ; and, likewise, I never knew an individual to become consumptive who was subject to chronic catarrh, or to any species of asthma. It is from long consideration of these facts, that I interfere but little with any catarrhal inflammation which may show itself in the midst of consumptive symptoms, for I well know that it will gradually supersede all these.

I may here remark, that cavities in the upper part of the chest are never healed, unless the pulmonary tissue be expanded in their neighbourhood, or in the other lobes of the lungs. In such case, I have repeatedly

listened to some bronchial inflammation which has fortunately taken place near to those cysts which are left when tuberculous matter has been removed by absorption or expectoration. I have been truly gratified to hear the well-marked pectoriloquy gradually become less distinct, till, together with the constitutional symptoms of phthisis, it has been at last entirely lost, and nothing has remained but the dry *râle* of enlarged air-cells, slight catarrh, and a little absence of respiratory murmur in the place before occupied by tubercles.

Should there be catarrh in the superior bronchial tubes, of a duration sufficiently long only to heal ulcerations and cure the patient, he may be again attacked by consumption, months or years afterward, if there be any cause assisting to impair the general health; but never can this relapse happen, if the bronchial tubes be subacutely inflamed for a period sufficient to produce chronic dyspnœa, or habitual asthma, more or less severe. Half of those which are commonly regarded as cases of catarrhal asthma originate in consumptive disease whose progress has been arrested by the supervention of that affection; but in which neither fresh crops of tubercles, nor hectic fever, are to be apprehended. Any individual indeed having asthma, from whatever cause, is as perfectly exempt from consumption as he who had been consumptive, but has afterward had his disease merged into asthma. In a word, it may be confidently affirmed, that no asthmatic person need ever fear becoming consumptive.

In order to promote expansion of the aerial tissue of the lungs, it is my usual practice, in the absence of catarrh, and when congestion in the chest and the symptoms of hectic fever have been diminished by small general bleedings, repeated at proper intervals, or by the application of leeches over the second and third ribs anteriorly, to advise inhalation as soon as possible. There are few cases of incipient consumption but what will be rapidly improved by this treatment, steadily pursued. The disease being thus checked, the same changes will follow which are attendant on catarrh. The nodules of unripe tubercles will become innoxious in consequence of being surrounded by black secretion, or what has been called black pulmonary matter; and

small cavities, already formed, will have their surfaces soon brought in contact, so as to heal by what surgeons term the first intention. It is, we must own, preferable to effect pulmonary expansion by sure artificial means, rather than to depend upon the uncertain production of catarrh. And there is another point gained, inasmuch as recovery takes place unaccompanied by the cough, or difficulty of breathing, generally attendant on those cures which nature herself now and then accomplishes, by introducing this less fatal, yet distressing complaint. Inhaling, performed two or three times daily, for half an hour each time, will in the space of a few weeks work a wonderful change on the chest; externally the muscles concerned in respiration will be manifestly enlarged, and the bony compages of the chest, both before and laterly, visibly increased; while, at the same time, the natural respiratory murmur will be heard internally far more distinct than ever. Such has been the increase of size which the chest, in young persons especially, has undergone through the exercise of inhalation, that I have known individuals, after inhaling little more than a month, require their waistcoats to be let out. It is in fact incredible to one who has never been at the pains to measure the chest, or examine its shape, what an enlargement it acquires by the simple action of breathing for the time above stated, backward and forward, through a narrow tube of a few feet in length. I have several times found, on measurement of the chest, that its circumference has increased, within the first month after inhaling, to the extent of an inch. I here speak of patients not arrived at adult age. Though I attach but little virtue to the substances that are inhaled, still, as we find patients prefer receiving into their lungs something having sensible properties to pure atmospheric air, I recommend a handful of hops, either, a little vinegar, or a table-spoonful of spirits of turpentine, to be added to the warm water in the inhaler. Every impediment to the free action of the ribs is to be guarded against by loosening whatever, in the way of dress, is at all likely to confine them; and it would be advisable too for the patient, if strength allows, to inhale at times in a standing position, as the diaphragm will then descend more easily and deeply, and of course allow the lungs more room to expand.

There are cases in which inhalation is contra-indicated; for instance, in dilatation, or hypertrophy of the heart, severe mucous catarrh, general emphysema of the lungs, pleuratic or pneumonic inflammation, hæmoptysis, or latent consumption of long standing.

It is to be discontinued, at least for a time, should there arise distressing headache, or much internal thoracic soreness. When it agrees well, it can be safely and most beneficially used for six months, or even longer. By this time, besides a removal of every consumptive symptom, a permanent enlargement of the chest will have taken place, proving a perfect safeguard against the recurrence of any future attack.

No permanent benefit is to be expected from this remedy, when the inferior lobes of the lungs contain cavities, or are studded with tubercles: yet, even in this unfavourable state, I have known relief arise, and surprising prolongation of life ensue, from its employment. I have individuals under my care, at this moment, in whom one lung is almost useless from extensive tuberculous disease, and with even well-marked pectoriloquy on the top of the opposite lung; still, from having the rest of the lung on this side in a satisfactory state, and thus being partially susceptible of the influence of inhalation, the progress of consumption has been arrested; and, in more than one instance, the relief afforded by inhaling has enabled the individual to attend to the duties of his calling—of course, no very onerous ones. Indeed, I shall feel happy to introduce any of my readers, who may entertain a desire to see such remarkable instances of the virtues of inhalation, to these patients of mine.

I must direct especial attention to the circumstance, that restoration, by means of inhaling, is only to be looked for when the cavities are confined to the summit of one, or of each lung. When they extend into the lower lobes, relief, as I have just shown, will often be given, but it would be unreasonable to expect perfect recovery. The experience of the medical world, from the days of Hippocrates down to our own time, has proved, that medicine is utterly powerless over the excavations formed in the lungs by tubercular phthisis. It

cannot bring into contact, and unite the opposite surfaces of the cavities : it cannot enlarge the pulmonary tissue ; —mechanical agency will. I have never known inhalation fail, when resorted to in the incipient stage of consumption ; and am firmly of opinion, that when pursued under the eye of a skilful practitioner, who knows how to apply according to circumstances the other inferior but still accessory powers of art, it never will.

As tubercles are rarely formed in the muscles of voluntary motion, we have hence reason to believe that the same additional exercise of the pulmonary organs, by more frequent expansions and contractions, will act as a preventive.

Before I was aware how materially the lungs can be enlarged by simply respiring through a long tube, of small diameter, I was induced some years ago to try various means for producing pulmonary catarrh, or some corresponding affection, in the great air passage vulgarly called the windpipe ; knowing well what an excellent agent such an affection is for expanding the chest, removing speedily well-marked symptoms of consumption, and, in a word, destroying altogether the tuberculous tendency. For this purpose, as in the heat of summer and the early part of autumn we rarely meet with cases attended with a catarrhal complaint, one of my expedients was to oblige the patient to breathe twice or thrice a day atmospheric air, made cold by artificial means. In more than one case I succeeded in producing a catarrh, which led to the recovery of the consumptive patient. I have, on several occasions, dismissed those in-patients of the Infirmary for Diseases of the Chest,—the wards of which are heated in winter so as to imitate a moderate summer temperature,—whose consumptive state seemed to be but little relieved : but owing to their going at once from the warm atmosphere to their own abodes, where perhaps some of them were badly secured against cold, or indeed owing perhaps to their imprudent and thoughtless exposure to the open air, they have caught a severe cold of a catarrhal nature ; and this, I can assure the reader, has alone effected a cure in some who have had tuberculous excavations of ancient, as well as recent date. I subjoin a case, in which will be seen the value

of a catarrhal affection in removing, or affording perfect security against consumption.

CASE 7.—A young man, a cutler by trade, having lost three brothers by consumption, came to my house in the summer of 1827, seeking to be relieved from symptoms similar to those which he had observed in them during their illness. He stated that the first indication of his complaint appeared after he had had a severe attack of rheumatism, which was with difficulty removed, and which left him much debilitated. When I first saw him, he computed that his cough, which was soon followed by a discharge of blood from the chest, had existed four months. He stated, too, that he had early placed himself under medical advice; but that, in spite of various medicines administered for his cough, the spitting of blood, periodic fever, profuse perspirations at night, and occasional diarrhœa, in short, all the unfavourable symptoms seemed daily to increase. The moment I saw him, his countenance bespoke the nature of his malady; and a few questions put to him soon confirmed my supposition, that he had all the common symptoms of consumption. On exploration of the chest by the naked ear, and by the stethoscope, I ascertained the existence of a cavity in the summit of the right lung, which afforded, when he spoke, a perfect pectoriloquy, and there was a gurgling when he coughed. The respiratory sound was indistinct on the left side, anteriorly, beneath the clavicle and over the second and third ribs: in all other parts the chest seemed healthy, save a state of respiration approaching the puerile, which was heard in the lower lobes. In order to subdue the constitutional fever and painful cough, I directed some blood to be taken from the arm; and this not affording the expected relief, several leeches were applied a few hours after to the anterior and upper part of the chest; and scruple doses of nitre, with a quarter of a grain of tartar emetic, and a drachm and a half of syrup of poppies were taken in an ounce of some demulcent vehicle, at intervals of four or six hours during the day. This compound acted freely on the kidneys, and, together with pills taken at bed-time, containing extract of lettuce, ipecacuanha, and precipitated sulphuret of antimony, gave, in the course of four

or five days, great relief to his pectoral disorder. Though I succeeded two or three times, by means of leeches again and again applied, and medicine varied to meet new symptoms as they appeared, in regaining for him what, comparatively speaking, he considered a return of tolerable health; still, with a view to effect a perfect cure, it occurred to me, that as my patient was a man of no small ingenuity, I might possibly get him to make a steel instrument shaped like a collar, deep behind, and so contrived, while it produced no inconvenience on the neck laterally, as to make a gentle pressure on the small part of the trachea, immediately above the sternum, and between the sterno-cleido mastoid muscles. This new agent was soon ready for use, and was worn at intervals for the space of two months. In front, a small piece of dry sponge was placed between the converging points of this imperfect collar and the wind-pipe; most happily for the patient, the pressure on the wind-pipe caused a slight mucous inflammation within it, and this was succeeded throughout the lungs by bronchial irritation, with a slight wheezing denoting an enlargement of the air vesicles. None of these symptoms were interfered with; and they continued for some months, after every apprehension of consumption was removed. It was really wonderful how much he increased in flesh, and to what bodily vigour he arrived, especially when the catarrhal complaint had established itself in the neighbourhood of the tuberculous disease in the superior lobes. At the expiration of a fortnight from this time a loud mucous rattle began to appear near to the seat of the pectoriloquy in the top of the right lung; all trace of a cavity was nearly lost, and the respiration there became daily more audible. The same improvement took place in the respiration of the upper portion of the other lung, which, I have already mentioned, seemed to be diseased. With the exception of periodic shortness of breathing, sometimes preceding and at other times following fits of coughing, the patient might be said, were he judged only from his looks and his feelings, to be perfectly well. After tracheal rattle had been distinctly heard in the larynx for a month, and appeared to be extending itself along the trachea to the larger bronchial tubes, he was directed to discontinue

altogether the further use of that simple apparatus, the steel collar. On one occasion only was it necessary to moderate, by the application of leeches, the mucous excitement of the lungs, when it ran so high as to cause suffocative breathing, incessant cough, superabundant expectoration, and general febrile disorder. With the exception of five grains of compound ipecacuanha powder, and double that quantity of extract of hops, made into pills to be taken at bed-time, and the occasional use of a mild aperient, there was little else done for the supervening catarrh; for I felt exceedingly reluctant to interfere much, well knowing the value of the new disorder, and that it would long prove a successful antagonist to any future as well as present liability of sinking under consumption. In the month of August, 1830, which was three years from the time he became my patient, I had an opportunity of seeing him in the enjoyment of excellent health; if I except a little asthmatic respiration, which I detected by the naked ear, whenever he made a forcible expiration. The expirations were of an emphysematous character, in the upper part of the chest, both before and behind; the air, in fact, was heard escaping from the enlarged air cells with a prolonged murmur in which dry cracklings were audible, perhaps arising from some air cells being united into one. Having ascertained what I have just described, and how much the shape of the chest had been altered, which, from being narrow in its antero-posterior diameter and flat, was become cylindrical and enlarged, I assured him that he never would relapse into his former consumptive state; and that with some care on his part, in attending to the directions which I gave him, his present asthmatic symptoms would have little effect in abbreviating the duration of his life.

This case is highly instructive. It is one by which mechanical aid produced in the midst of summer such a degree of general catarrhal affection of the air passages of the lungs, that complete recovery took place. Nor was this all; for, through the emphysematous state of the lungs, a perfect security existed against any liability hereafter to tuberculous productions. In a word, he escaped all danger of pulmonary consumption.

It may not be uninteresting to mention the particular

circumstance which led me to imagine and adopt the above invention. A gentleman of the name of Willis, who a few years ago resided in the neighbourhood of Kennington, and was under my care, happened to have a small oblong tumour in front of the neck, with its inferior portion lying between the sternum and the trachea, from which resulted a slight obstruction to his respiration. This tumour, which had existed for some years, had induced a perfectly asthmatic state. By preventing free expiration, and likewise by exciting a slight continuous inflammation of the mucous membrane from the point of pressure into the numerous ramifications of the bronchi, the air had become imprisoned within the air cells, and in this manner was produced a general emphysematous state of the lungs. Besides the difficulty of breathing, usually attendant on this condition of the pulmonary organs, the obstruction from the tumour naturally caused him to breathe with a loud, wheezing, and somewhat croupy sound. Observing this, I concluded that if a slight mechanical resistance to the free egress of air from the lungs could be produced, so as to impart the prophylactic benefits of the asthmatic state, without the distressing and aggravated accompaniments noticed in the case just described, it would be a remedial agent of no small efficacy. "On this hint I spake;" and, seconded by the ingenious contrivance of the artisan whose case I have particularized, I was fortunate enough to bring the contrivance to bear, and to find that I had not miscalculated its advantages. I have entered into this detail, as it serves, by analogy, to throw additional light on the position I have advanced respecting the non-liability of the asthmatic or catarrhal patient to phthisis :* although, from the superior benefits to be

* Circumstances, in two instances, corroborative of the above change from a consumptive to an asthmatic state, have occurred within my own observation. Major — of the U. S. army, called on me a few months since, to obtain information respecting Dr. Ramadge's views, &c., and to ascertain whether the tube would be advisable in his case; he stated that he had been sent home three different times to die, supposing he was in the last stage of consumption, but that he again revived. Being in some doubt, from his symptoms, as to the nature of his disease, although he was a spare-made man, and much reduced in flesh, with a cough, difficulty of breathing, &c., I advised him to go to Dr. W —, of this city, and ascertain the nature of his disease—he did so, and returned to inform me that the doctor stated that his disease had

obtained by a duly extended course of inhalation, and having satisfied my curiosity by the experiment, I have never since employed the preceding mechanical contrivance.

Having noticed the effects arising from a small tumour on the neck of my patient, Mr. Willis, I may observe, that that enlargement of the thyroid gland technically called bronchocele, but more familiarly known by the name of Derbyshire neck, induces, when considerable, similar symptoms and results by the pressure it occasions on the trachea. Nor are the consequences of aggravated hysteria to be overlooked in this place; since a frequent communication of spasm to the posterior membrane of the trachea, will, by imparting to the person so affected a slight asthmatic tendency, and thus enlarging the volume of the lungs, preserve the female from all liability to pulmonary consumption.

A positive proof of the advantage accruing to the consumptive patient through mechanical development of the lungs, is to be inferred from the general immunity from phthisis enjoyed by those families in which a well-formed chest is common to all the members. I may cite as, what the lawyers call, a case in point, the numerous offspring of the venerable George the Third, himself the model of a manly form. Heaven knows, nature must have done more for them than medicine.

A negative proof of the benefits of inhalation, and a positive one of the inefficacy of medicine, has unfortunately occurred, of late years, in the family of a noble lord, to whose illustrious kinsman this country is indebted for one of the greatest boons ever conferred upon it by

been originally tubercular consumption, but that it was changed to an asthmatic state, and advised him to dispense with the use of the tube. Dr. W—— subsequently informed me that the above instance confirmed him in the correctness of Dr. Ramadge's principles, that consumption was arrested by a change of the nature of the disease in the lungs. The other instance is that of a Miss B——, since deceased, who came to me from —— with an introductory line from the Rev. Mr. Abbot: her case was one of so difficult a nature, her symptoms being so complicated, that I directed her to Dr. W——, to ascertain the nature of her disease. Her whole appearance denoted consumption, yet she had lingered so long with cough, difficulty of breathing, &c., that it was a matter of astonishment that she did not die. She returned to inform me that her disease was asthmatic. From the account she gave of the former state of her health and symptoms, there was no doubt left in my mind that she would have died years ago but for the intervention of asthma.

J. M. H.

legislation. It is impossible to look upon the frank, artless, but pensive features of the lovely boy whose lineaments are recorded by the imperishable pencil of Lawrence, and not to regret that medicine could effect nothing.

How long will it be before this truth will lead the scientific to adopt its fellow-truth,—that, so surely as medicine alone will ever fail, the mechanical means I have pointed out will succeed?

While preparing this edition for the press, I have met with two very singular cases, confirmatory of my views; the one in Hippocrates, and the other in a curious treatise, entitled “Phthisiologia,” written by Dr. Richard Morton, a man of considerable eminence in our early English medical school. I term them singular, inasmuch as written at two such distant periods, they present accounts which elucidate and strengthen my opinions as strongly as any case taken from my own memoranda. The father of medicine relates that the daughter of Agasias, when a girl, laboured under tubercular consumption; that, becoming pregnant after marriage, she expectorated an unusual quantity of puriform matter; and that, subsequently to this, she became asthmatic. Here the process of cure, as laid down by me in the preceding pages, is distinctly traced. I have already noticed the advantages of pregnancy in consumption; and have proved, what the above early record so surprisingly confirms, that if asthma supervene on consumption, the latter is cured.

The case I am now about to quote bears witness to the solidity of my practice no less triumphantly than the former. I quote Dr. Morton’s own words:—“My only son, before he was eight years old, while I was out of town, was taken with a most severe bloody flux, by which he seemed to be brought into a consumption, even to a *marasmus*, before I returned: but after the bloody flux was plainly overcome by the diligent use of all sorts of convenient remedies, and his body, with respect to his stools, was reduced to its natural state, there still remained a hectic heat, a dryness of his skin, a quick pulse, with other signs of a hectic heat. Moreover, his appetite failed him very much; a dry cough came upon him, and a thickness of hearing, with a dulness of his brain: but yet with the choice of a wholesome

air, the use of a milk diet, and afterward of the Peruvian bark, and of a plentiful nourishment, which afforded a good juice, he recovered a good colour, and his flesh, within the space of three or four months, without any other inconvenience, but only *that he has been ever since very subject to an asthmatical cough upon the least occasion.*"

My remaining observations on the treatment of consumption will be brief, for two reasons, first, since I have fully detailed the two most important branches of the curative process; and, secondly, because the general uses of medicine are to palliate, or, by inducing a chronic state, to favour the supervention of catarrh. Again, by removing the constitutional symptoms, the local affection may terminate in an insensible excavation, hardly interfering with the general health.

Among the innumerable medicaments that have been, and are still tried, I shall specify a few, the advantages of which are capable of proof, not depending on the caprice of fashion—there being a fashion even in medicine—or upon any imaginary virtues. Our dispensaries are full of such drugs, and so unfortunately is practice; yet the number applicable under any form to phthisis, is of a limited extent.

CATHARTICS.—Recourse must be had to purgatives very sparingly, in the commencement of consumptive symptoms, as the general health is usually deranged. From an erroneous view of the causes of consumption, great mischief has arisen in the employment of aperient medicines; and this injudicious treatment has been propagated by the sanction of names of no mean authority. Instead of increasing debility by the exhibition of cathartics, it is infinitely preferable to remove congestion by the moderate abstraction of blood, as previously noticed. Great caution should be observed, as to the kind of medicine employed for purgative purposes. Saline aperients ought in general to be avoided, from the debility they induce by carrying off the serum of the blood, and by too rapidly accelerating the passage of the chyliferous matter, before due absorption takes place. It should be borne in mind, that a relaxed state of the bowels is a very frequent accompaniment of consumption; and that any undue administration of laxative medicines will, in most cases, superinduce abdominal

gripings and diarrhœa, events which cannot be too sedulously guarded against. In the inflammatory complication of phthisis, a powder composed of from ten to fifteen grains of jalap, combined with two or three grains of calomel, may be administered as an auxiliary to venous depletion. Indigestion is of no uncommon occurrence in consumptive complaints, yet, as it usually arises from vascularity, and morbid sensibility of the stomach and of the intestines, the most rational method of proceeding is to equalize the circulation by moderate venesection. Occasionally, a few leeches, applied to the pit of the stomach will be equally successful in removing dyspepsia. As an ordinary laxative, a few grains of dried subcarbonate of soda, calcined magnesia, and rhubarb, taken in some liquid vehicle, will be found highly useful.

Since I am on the subject of dyspepsia, I cannot help adverting to the strange tissue of absurdities gravely put forth by a Dr. James Johnson in a treatise on Indigestion. So far as I can make out the meaning of a series of passages, which contain a number of scientific words, serving only to show a remarkable ignorance of morbid anatomy, this person seeks to establish a distinction between the symptoms of phthisis, when it "supervenes on derangement of the liver and digestive organs;" and when it "commences originally in the chest." What he would have his reader understand by this word "originally" is somewhat difficult to make out. I never before heard of pulmonic affection commencing in any other part than the lungs. Does he wish to have it inferred that consumption at times originates in the stomach, or the head, or the feet? Again, it is by no means clear what he intends to convey by pulmonic affection supervening on "derangement of the liver," &c. If the literal interpretation of these words be taken, he states what is by no means the fact. Phthisis supervenes on impaired general health, and this may be occasioned by dyspeptic ailments; but to say that it supervenes on dyspepsia, is nonsense. But when he begins to draw his distinctions, he sinks deeper into "confusion worse confounded." He talks of phthisis advancing in consequence of "a previously tuberculated state of the lungs." As Parson Evans says, "These be

phrases and tropes, look you." Advancing!—If phthisis be not established, and too surely established, when the lungs are tuberculated, then "there's nothing serious in mortality." We shall hear next, that when an individual has got a wooden leg, he is in a fair way of losing his fleshy one. Perhaps Doctor Johnson makes use here of the figure *Hysteron, Anglice*, "putting the cart before the horse." He then, pursuing his nice distinctions, winds up his medical budget by stating it as a pathological fact, that "phthisis, of the common and fatal kind, will soon be developed"—after what?—"after hepatization of the parenchymatous tissue of the lungs." Better and better still! In plain English, the doctor expressly affirms, that, instead of consumption inducing hepatization—for this is the natural order—the latter, which every anatomist knows is the consequence, will be the cause of the former. The attempt to unravel still further this Gordian knot of technical terms, which, like Mrs. Malaprop's, are "so ingeniously misapplied," would be waste of time: nor should I have thought it worth while to have taken this slight notice, but for the parade of superior knowledge, the "flourish of drums and trumpets," with which this nautical surgeon ushers in his *dicta*. They may suit the cockpit, but not the temple of science.

Another individual, Dr. W Philip, who has likewise written on Indigestion, with more, although not much, success, has stated that the pulmonic affection is merely sympathetic; and again, that the sympathetic produces actual disease in the lungs, indicated by some degree of inflammation in the bronchia, &c. Now, had his experience been at all of an extended nature, or his observation been keenly applied to even limited opportunities, he could hardly, one would imagine, have failed of perceiving that such a disease as dyspeptic phthisis does not exist. Indigestion is a very common disorder; but the dyspeptic patient never becomes consumptive, until his general health has been seriously impaired by the derangement of the digestive functions. Dyspepsia, it may be as well for him to know, often follows pulmonic affections, but is never their proximate cause. Were Dr. P. in the habit of employing auscultative exploration of the chest, he would discover that the presence of

blood in the expectoration is not, as he seems to imagine, the forerunner of tubercles ; but that, in three-fourths of the cases, it arises from the existence of cavities already formed by the softening down of tubercles. As to inflammation of the bronchia occurring at the time he speaks of, if it does, it is of a very fugacious description indeed.

The singular opportunities I have enjoyed for observing every variety of disease connected with the chest, have led me to entertain views not a little at variance with those of this writer. Ten years ago I had the opportunity of seeing a hundred patients, at the Infirmary alone, in a single day ; and since that time my field for observation has been very considerable : yet I have never found the daily use of mercury, as advocated by Dr. P., of advantage, even in a solitary instance. I have had, on the contrary, patients who have been under his care, and who have derived no benefit whatever from his undue estimate of the virtues of this mineral. It is by no means improbable, judging from his opinions as expressed by himself, and from his non-employment of auscultation, that he has been mistaken in the nature of those cases which have yielded to his treatment ; that he has supposed them to have been connected with phthisis, when no such complication had existed.

EMETICS.—At one period emetics were held in no slight repute ; and much useless torture, or I should rather say injurious pain, was the consequence to the consumptive sufferer. It has always been a principal object with me to avoid every thing calculated to distress or annoy without imparting benefits equivalent to the uneasiness undergone. That this is not the case with the administration of emetics is proved convincingly by the fact that when vomiting is brought on in a natural way by violent coughing, the patient experiences no relief. Whatever faith medical men may be inclined to place in the remedial powers of emetics, I have none ; although I candidly confess, that I am in the daily habit of prescribing small doses of the tartarized antimony, and of ipecacuanha ; yet in so minute a degree that they are within the limit of actual nausea.

SUDORIFICS.—Twenty or thirty years ago it was the general practice, in all diseases, to determine to the surface of the body ; and some practitioners, enamoured of the wisdom of their youthful days, still adhere to it. Great injury undoubtedly resulted from this indiscriminate course, and more particularly would this be the case in phthisical complaints. Although employed with the view of diverting morbid action from the lungs to the surface of the skin, yet the consequence of the stimulus thus imparted is not unfrequently increase of hectic fever, terminating in pulmonary engorgement, or other visceral excitement.

No relief indeed is afforded by sudorifics ; on the contrary, when perspirations occur spontaneously, they are found sensibly to reduce the patient's strength. In the hot stage of hectic fever, I endeavour to reduce the tenseness and aridity of the cuticular surface, by having the hands and upper part of the body sponged with tepid water and vinegar ; and I order this to be continued until a reduction of temperature takes place. The same treatment is to be pursued on every return of the hectic paroxysm. It being of infinite importance to preserve an equable temperature of the body, I uniformly attempt the removal of whatever state is unduly predominant : therefore, in the cold stage, I direct the immersion of the feet in warm water, and advise the patient to take some warm beverage, as tea, &c. ; and when perspiration is profuse, I lessen it by administering either an infusion of columba or of camomile, in preference to the acidulated infusion of roses, in such general, but, in my opinion, injudicious use. Except in the very last stage of the disease, the application of leeches to the chest, in periodically recurring perspiration, will be found far superior to any tonic whatever.

EXPECTORANTS.—The use of this class of medicines seems founded on no valid reasons ; nor are the benefits produced very visible or satisfactory. Could they stimulate the mucous membrane of the lungs to a catarrhal state, they would be beneficial indeed : colchicum, I have reason to believe, occasionally operates in this manner : but its effects are uncertain.

In many consumptive cases there exists a superabundance of expectoration ; and, consequently, in these all

expectorants are supererogatory. Above all, that anxiety which is frequently displayed to avert, or palliate cough, is unnecessary, since it often occurs that to this an emphysematous state of the lungs is owing; which protective is thus lost, by the injudicious attempt to allay the cough. The chief good resulting from expectorants is not owing to any specific action exerted, in particular, on the pulmonary organs: but rather, as is the case with ipecacuanha and tartar emetic, it is due to a variety of influences. Thus the former of these medicines seems to act as an astringent where expectoration is superabundant; and, generally speaking, both these substances, in addition to their value as expectorants, aid all the secretions. Other expectorants, as squill, ammoniacum, myrrh, &c., are to be cautiously employed when phthisis is accompanied by hectic fever; but ipecacuanha, and preparations of antimony, possess the great advantage of being of safe administration during every stage. Mercurial agents exert a powerful influence in promoting expectoration, as they likewise do on every other secretion; and this property has led to most injurious consequences. Some years ago, I had opportunities of seeing, in the practice of a deceased physician at the London Hospital, a woful example of the evils arising from the exhibition of mercury in cases of phthisis. The facility given to expectoration seemed to delight this practitioner; but it was so rapidly increased, and accompanied by such extreme perspirations, wasting away, and diarrhoea, that the patients soon went into what is vulgarly, but not inappropriately denominated—galloping consumption.

NARCOTICS AND DEMULCENTS.—The latter, as remedies, are out of the question; but, as palliatives, are highly serviceable. Being mostly of a nutritious nature, they tend to keep up the patient's strength, while they soothe the irritability of the chest. The former are occasionally useful, but they are liable to great abuse. Given with a view to promote sleep at night, much nicety is required in their regulation. When the hectic state and excitement obstructive of sleep have been removed, recourse may for one night be had to an opiate; but should it be repeated on the succeeding evening, it too often happens that its effect will be lost. Digitalis and

hydrocyanic acid have both been extolled as of infinite efficacy ; but they are undeserving of the high reputation bestowed upon them. Dr. Ferriar imagined, that by combining the former with myrrh and sulphate of iron, he increased its utility in consumptive disease ; yet, how its union with two stimulants could be productive of benefit, I do not exactly see. As to hydrocyanic acid, I concur with Laennec in regarding it, although it may sometimes relieve cough and dyspnœa, as of far inferior value to many preparations of opium. In particular idiosyncrasies, in which opium under any form is found to disagree, the extract of hyoscyamus, and the feebler narcotics, as extract of lettuce or hops, will singly, or combined, lull cough and afford rest. I should regard it unfair were I not to state, that Battley's *Liquor Opii Sedativus* is the preparation I in general prefer. I may here note, that the pharmacopœia of this country exhibits an unsatisfactory catalogue of opiates. It is to be hoped that these, with other omissions, will shortly be rectified. The expected admission of the numerous and intelligent physicians termed licentiates, to the privileges due to their learning and science, will indisputably operate a most beneficial change and form a new era in medicine.

ASTRINGENTS AND TONICS.—The first of these are employed for a threefold purpose—to check discharges of blood from the lungs, to restrain colliquative perspirations, and also diarrhœa. Sulphuric acid, with infusion of roses, has acquired much notoriety as an astringent ; but I seldom employ it, since I find its use not unfrequently followed by distressing tension of the chest. Although, I own, it may be advantageous for a time, yet its continuance is apt to exercise an effect the reverse of what is intended. It seems to me in such cases to increase rather than diminish hæmoptysis. The acetate of lead in small doses, combined with opium, is far superior not only to the acid but to every other astringent. All danger of its producing an unpleasant action upon the bowels, apprehended by some, may be obviated by occasionally intermitting it, and regulating the evacuations. I have already pointed out the most salutary mode of checking perspiration, by the application of leeches to the chest, and it remains for me to notice the best remedial agents for diarrhœa. These are chalk,

kino, catechu, pomegranate bark, and Armenian bole.—Chalk, with a few minims of Battley's preparation of opium, administered in barley water, gruel, &c., will be found to equal in efficacy more compound admixtures. Of tonics, the simplest are the best. Bark I rarely, or ever prescribe; but under particular circumstances infusion of columba, of camomile, or occasionally of cascarilla, may for a short period be not disadvantageously employed. While the Brunonian theory was held as the guide of practice, preparations of iron were in high repute: and one of these, the antihectic mixture of Dr. Griffith, so termed it would seem like "*lucus a non lucendo*," from its possessing properties the reverse of its name, is still, I am sorry to say, in estimation with some practitioners. The use of such medicines, in a complaint that calls for every effort to abate and moderate excitement, cannot be too highly reprobated.

It is not a little curious, that the only medical work which has I believe, issued from the University of Oxford for the last century and a half, should have been written to divulge the virtues of an insignificant astringent. Dr. Bourne, the *Aldrichian Professor of the Practice of Physic*, published in the year 1805 an octavo volume, wholly dedicated to the recommendation of the *uva ursi*, or whortleberry, as a specific in *phthisis pulmonalis*. The poor gentleman even apologizes in his preface for having delayed divulging this astounding discovery to the world so soon as he might have done. I honour his sense of humanity, but cannot help being amused at the simplicity of the professor. The little good he did effect was obviously due to the medicines combined with the aforesaid whortleberry. As for any pathological views, they were out of the question. He does not even enter into any consistent *rationale* of his own practice. However, he did manage to write a book, and attempt in his small way to promote science: which is more than many of his brother professors have done. The medical world should not be severe upon them, seeing that, from their situation as heads of the art, they have enough to do in conferring degrees, without the additional trouble of acquiring knowledge. What can be expected from a place where there is no regular school of anatomy; and no lectures on half the useful branches of medical science?

Indeed professors in all places, in this country, seem to be alike;—witness the elder Duncan's anomalous treatise on the same complaint. Both appear to have been exempt from the sin of having ever opened a human body. May the reign of such teachers be quickly at an end! To think, too, of the last having been forty years a medical lecturer at Edinburgh, and of having written fifty volumes,—such is his own boast: it is to be hoped, at least, that he never published them.

BALSAMS.—I hold it totally unworthy time or paper to waste many words on this very futile description of medicine, at least as applied in consumptive cases. It was supposed in the days of Dr. Morton, and of Van Swieten as well, that balsam exerted a vulnerary power: but to use such medicines at present, or to suppose that any medicine whatever can heal ulcers of the lungs, betrays an extraordinary ignorance of the peculiar nature of phthisis. There can be no other possible method of healing them than by bringing their surfaces in apposition, since, unlike other ulcers, they never granulate.

BLISTERS.—When expectoration is superabundant, or an œdematous state of the lungs is supervening, these may be applied with success; and when abstraction of blood generally, as well as locally fails in removing fixed pain of the chest, I find them very useful. In general, however, they are too indiscriminately employed; since their use at an improper period tends to bring on, and accelerate, the hot stages of hectic paroxysms. Thus they superinduce a continued febrile state, not unfrequently terminating in some variety of thoracic inflammation. One fact, peculiar to the application of epispastics in consumptive cases, seems almost unknown to the medical profession. I have never known a patient suffer from gangrene through their use, although such cases are of no uncommon occurrence in other disorders. How little susceptible individuals labouring under phthisis are to mortification, has been noticed by that great authority, Laennec; he explicitly states, that even protracted confinement is inapt to produce gangrenous eschars, and the whole course of my experience corroborates his assertion.

DIET.—This should ever be varied according to the digestive powers of the patient. Van Swieten has given

a homely, but very sensible, illustration of what ought to form the general guide in all dietetic advice. He compares the physician, who pronounces such or such food to be wholesome without reference to the state of the patient, to the sailor who shouts out that the wind is fair without considering to what port the vessel is bound. As a general rule, the system of overfeeding, or, to use a common phrase, of keeping up the strength of the consumptive individual, cannot be too strongly deprecated. It is, indeed, strange to find any one so imbecile as to recommend in a disease in which, even under the most judicious treatment, febrile action will be of almost daily occurrence, a course of diet suitable only to the healthy and vigorous : yet, in the absence of gastric irritation, and on the abatement of hectic fever, the food may be of a nutritive and invigorating description. This caution, however, is to be borne in mind, that whatever is followed by increased heat of body should be abstained from. The best index of food's agreeing with a patient, is the absence after meals of constitutional disturbance. Except during the presence of inflammation and of hæmoptysis, I am in the habit of allowing the moderate use of meat once a day, with an egg occasionally at breakfast or by way of lunch, according to the patient's fancy ; nutritive broths, taken lukewarm ; (indeed, except the patient feels chilly, whatever liquid is drunk should be of very moderate temperature ;) and, as to a milk diet, so commonly ordered, I reject it altogether. It excites expectoration in an unusual degree, without however leading to a catarrhal state. When consumption is decidedly manifested, wine is for the most part inadmissible. A small glass of ale at dinner may at times be permitted ; and occasionally at night, with the view of inducing sleep.

I subjoin a few leading observations on the common articles of diet. To begin with fish, an important item in the *cuisine* of the invalid. It forms a moderately nutritious food ; and is so far of advantageous use, that it does not stimulate the body and raise the pulse in the same degree as flesh. The chief considerations in selecting fish for the patient, are, in the first place, its exemption from oiliness and viscidities ; in the second, its firmness of texture ; and, lastly, the colour of its muscle,

which should be a clear white. Such being the most desirable qualities, haddock, whiting, sole, cod, and turbot, all, in different degrees, answer to these requisites. The whiting and haddock are the easiest of digestion,---the cod, perhaps, the least so of all. Salmon is too heating, and too oily, to be indulged in.

As to shell-fish, the claws of crabs, lobsters, and crawfish, are usually palatable, and agree well with the patient. Nor are shrimps and prawns to be forbidden: of course, they should not be indulged in to any extent; but, in moderation, they may be safely eaten. Indeed, I have often observed, that the petty delay and trouble that there is in unshelling this tiny fry seem to excite the salivary glands, and, by supplying the food in small quantities and in slow succession, to stimulate the secretion of the gastric juice. In cases, too, of extreme debility, the preparation and process of the repast serve to interest and amuse a mind weakened by long indisposition. Oysters I generally leave to the discretion of the patient. If there is any desire expressed for them, I see no reasons for their refusal; but I have observed that patients, whose expectoration is heavy, generally turn from them with loathing. I do not deny, that many of these articles are commonly and justly considered as indigestible; but this can only hold good when they are taken in any quantity. When their use is moderated by prudence, I have never found them more liable to disagree than the ordinary edibles of the table. I may mention, that I had a patient, a very frequent article of whose food was turtle. He took it, of course, dressed in a less stimulating manner than the usual form.

So much does the agreement or disagreement of food depend upon the constitution and habit, that, in laying down dietetic rules, we must always bear in mind the old axiom, "*Quid nocet alteri, alteri juvat.*" I have found it a very ordinary custom among my poorer patients to indulge in eels, when first permitted after illness to take any thing of a more solid nature than gruels, &c. Judging, *a priori*, one would conclude from their oleaginous nature, that they would prove a most indigestible article of diet: yet nothing can be more common than for them to be chosen by the lower orders,

on these occasions, as a delicacy; and nothing can be more certain than that they agree.

So long as hectic fever, or any febrile symptoms continue to any extent, the living of consumptive individuals should indisputably be low; but otherwise a generous diet, in the absence of fever, so far from being deprecated, may be safely left to the option of the patient. Mutton is the lightest, most digestible, and most nutritious meat for the invalid; and broiling one of the most advisable modes of cookery: at the same time that few things are more palatable, nothing can be more wholesome than a mutton chop. Beef is of a denser fibre, requires a longer space to perfect its chymification, and is consequently less easy of digestion. Although it is equally as nutritious as mutton to the healthy, it can hardly be pronounced to be so to the invalid, since it requires a tone and vigour in the digestive organs which the latter seldom possesses. Veal and pork are the meats which follow next in the order of digestion. I need scarcely enter my veto against eating much of the fat, whether of mutton or any other meat; for the delicate state of the stomach in illness will, in general, cause a repugnance to it.

The meat should always be plainly cooked; and, when it does not contravene all the laws of cookery, I would say, let it be roasted: next to this, broiling is the most wholesome form. Spallanzani has demonstrated satisfactorily, that meat should be neither over nor under done; and since he has established this point by numerous well-conducted experiments, the general order to the cook, on this head, should be to observe the "*juste milieu*." A few words, as to the reasons of the preference given to roasting over the other modes of cookery, may not be unacceptable to the patient. The loss in roasting arises from the diminution of the fat, which is melted out, and the evaporation of the water; in boiling, the loss is caused chiefly by the solution of the gelatine and osmazone; therefore, the nutritious matter, as the gelatine, is considerably lessened in boiled meat, but remains condensed in roasted. Its superiority over broiling consists in its retaining, from its size—we are of course supposing that a joint is put down—more of the juices of the meat. Broiling, from the quickness with

which the outside of the meat is hardened, suffers it to retain a much greater portion of its juices than boiling or baking; but even the celerity with which a chop or steak is thus cooked, cannot enable it to compete, in this respect, with the advantage roasting possesses from the size of the portion usually submitted in this mode to the action of the fire. Baking, from its peculiar process not only prevents the evaporation of the oils of the meat, but renders them additionally indigestible by presenting them in an empyreumatic form. On the whole, however, I prefer it to boiling. Before quitting the subject of meats, I may mention that venison or hare will prove a very nutritious food to those whose stomach is debilitated. They are easily digested; but, as they furnish a quantity of highly stimulating chyle, they must be avoided by those whose state of body requires the absence of all stimuli.

As to the bird kind, the wild are more digestible, but at the same time more stimulating, than the domesticated; and the darker the colour, and the greater the proportion of fibrin, the more stimulant the chyle produced. There is this advantage presented by the bird kind, that they all differ in flavour from each other, and are consequently well adapted to tempt the invalid. The appetite, in ill health, is often in abeyance—not so much from weakness of the digestive functions as from the want of a little management in varying the food. Persuasion is no less requisite in leading the animal than in conciliating the rational powers. An argument, pleasingly addressed to the palate, is often no less conducive to bodily than—when directed to the judgment—it is to the mental health. Nothing is to be deemed trivial which can soothe; nothing should be neglected which may, with due limitation, contribute to invigorate the sufferer.

CLIMATE.—It has been seen from the preceding pages how much I am at variance with the common opinions entertained of phthisis, and to none am I more diametrically opposed than to those which respect climate. So far from sending a consumptive patient to the south of France or Italy, I should, if change be requisite, deem the climate of St. Petersburg a thousand times more beneficial. In the latter case he has a chance of contracting catarrh, and of thus staying consumption: in

the former, any catarrhal state which might exist would assuredly be fatally removed. When I hear of consumptive individuals being recommended to try the genial climes, as they are absurdly termed in these instances, of Lisbon, Madeira, or other sunny lands ; and when I reflect on the evidence given by medical statistics of their deadly influence on phthisis, I long to suggest the fitting answer to such advisers,—“*Me vestigia terrent omnia adversum spectantia, nulla retrorsum.*” My experience on this point is full and explicit ; and I could substantiate it, were it requisite, at the close of a treatise the scope of which has been to prove the true nature of this little understood malady, by numerous cases. Two, however, which have come to my knowledge since the publication of the last edition of this work, are on several accounts so interesting, that I am unwilling to withhold them. The first of these, which I extract from the letter of an eminent solicitor in the west of England, who had occasion to consult me, bears ample and irresistible evidence to the soundness of my conclusions. It comes with the full weight of authority, for it is a true tale told by the most unexceptionable witness. The writer commences by stating that the death of three sisters, a brother, and his mother, of consumption, had naturally induced some anxiety on his part, and led him to consult me for symptoms it is here unnecessary to detail. He then proceeds as follows : “ I am unacquainted with medical science, but I presume that what you call ‘ a permanent catarrh,’ I vulgarly designate a constitutional cough,—if this be so, my own father affords a striking illustration of the correctness of your views. He, when young, was considered very consumptive, and to use his own words was ‘ sent home from abroad twice to die among his friends,’ the foreign doctors pronouncing his case to be incurable decline. The first time he rallied, probably in consequence of the voyage, &c., but relapsed after his return to *Italy, where he was when first attacked*—(a further corroboration of your opinions.) Business then called him to Newfoundland, where he was exposed to the severest weather. He returned to England, apparently without a chance of living many weeks ; he, however, soon exhibited indications of amendment, and although a strong cough and

expectoration continued and never left him for *sixty years*, he attained the age of 84, and never from the establishment of his catarrh (if such it was) knew a day's illness of consequence, with the exception of occasional attacks of the gout. There are other circumstances," the writer continues, "which I have not space to mention. My eldest sister has escaped hitherto, and she has a similar cough, and has had it for years ***** the other members of my family who have died in decline had no such constitutional cough." The above is surely, to use the language of Shakspeare, "confirmation strong as proof of holy writ." The other case to which I have alluded is not equally valuable in point of conclusive testimony with the preceding, yet is far from foreign to the purpose. It is, indeed, rather curious, that as I had originally instanced the climate of St. Petersburg as preferable to more southern latitudes, selecting it by chance as the representative of cold climes in general, the following should have been sent me as a piece of gratifying news by a lady of high rank, a patient of mine :—"I have now before me a confirmation of your views of the beneficial effects of a cold climate in pulmonary cases, in a letter from Mr. Canning, (the premier's son,) who has spent the last winter in St. Petersburg, though many of his friends, in consequence of his extreme delicacy and liability to attacks on the chest, dreaded the effects of that climate, and urged him to visit the south of Europe in preference. He says, 'I have never felt so well, or been so free from cough and every ailment as since I have been in Russia.'"

The author of the article on "Climate" in the "Cyclopædia of Practical Medicine," a work based on a foreign prototype, but far inferior in original views, has obtruded some crude notions on the subject, which, being calculated to mislead the young practitioner, I shall briefly notice. He writes as follows :—"The great desideratum in this country is to find a mild climate and sheltered residence for our pulmonary and other delicate invalids during the winter and spring"—and then proceeds to specify the various advantages of our different watering-places. Now it is lamentable to find in a work of so much pretension, a writer, who, at this time of day, is so obtuse as to advocate opinions which have become

the *opprobria* of the science. If, instead of repeating platitudes which have been handed down from father to son, he had taken the trouble to repair to some of the spots whose salubrity he vaunts, and examine the tombstones in their respective burying grounds, he would have discovered from the excessive proportion of deaths occurring in the spring of life, particularly among females, that consumption here, if anywhere, "shadowed the portals of the tomb." As a friend once observed to me, a walk in Clifton church yard read a finer homily on the vanity of life than any sermon which he knew. He mentions, to prove the beneficial effects of the climate of Madeira, that out of fifty-two patients who went thither in a given number of years, twenty-three recovered; which, if it proves anything, would indisputably establish—were the cases accurately reported—the efficacy of a sea voyage, since those who died succumbed for the most part, it would seem, from too prolonged a stay on the island. The truth is, this person is contented with writing in the usual vague manner on the efficacy of a warm climate, without condescending to explain how warmth can heal up a cavity in the lungs, as if indeed there were a charm in the phrase—warm climate. I have had numerous patients who have returned from these lands of "the myrtle and vine" with excavations in the pulmonary organs, but never knew a solitary instance in which a cure has been the result, except by the fortunate supervention of a catarrh or bronchial affection. Facts are the best, and most stubborn arguments.

So decided am I on this head, that I never admit into the infirmary a phthisical patient with recent catarrh, because its wards are heated in winter time so as to resemble a moderate summer temperature. The cases of consumption that come under my notice in summer are nearly double the number of those I see in winter. The reason is evident:—the augmented temperature of the weather increases the intensity of two of the most important stages of the hectic paroxysm—the hot and the sweating. To subdue these then becomes peculiarly difficult: how likely they are to be aggravated by going abroad, any well-constructed thermometrical table will tell. Again, if the disease be latent, removal to a

warm climate is the most probable means of making the case one of manifest phthisis. In uniformity with these opinions, I feel no anxiety respecting consumptive patients being kept scrupulously within doors. Whenever the weather permits, they should be allowed to take an airing daily; but be by no means suffered to remain so long as to be sensible of chillness or cold.

From every inquiry I have made with respect to the influence of climate, I conceive that, all things duly considered, the patient cannot have a more suitable residence in winter than in some of the spacious, well-ventilated streets of our own metropolis. Another consideration--a great one to the invalid--is that of comfort, a word indigenous among ourselves. Many of those who had been led by blind guides to roam abroad in a vain search after that health which, under judicious treatment, they might have preserved here, have assured me, to use the language of Sterne, that they had done better to "have remained dry shod at home;" and I am convinced that the greater number thus sent on a useless errand make--when hundreds of miles from their own comfortable fireside---the reflection that occurred to honest Touchstone;—"Ay, now am I in Arden---the more fool I; when I was at home I was in a better place."

APPENDIX.

CASE I.

SUPPOSED CONSUMPTION CURED BY PARACENTESIS.

EXUPERIUS V. PARKER, aged 32, of the merchant service, but formerly a petty officer in the royal navy, was admitted into the Infirmary for Diseases of the Chest in November, 1831. He was at this time suffering under frequent and painful cough, attended with expectoration of opaque yellow sputa, singularly fetid, and so abundant in its discharge as to amount, in the course of the day, to three quarts; it was occasionally tinged with blood. Along with violent pain in the inferior part of the left side, his respiration was obstructed and difficult; and his sleep was unrefreshing and broken by constant suffering, and accessions of high fever on the approach of night. He likewise laboured under profuse perspirations, was excessively emaciated, and his complexion of a sickly yellow hue. It appeared, on inquiring the causes which had led to this state, that while on his passage, in 1829, from Kingston to Morant Bay, in Jamaica, he had been frequently drenched to the skin, and that he had suffered his clothes to be dried on him by the heat of the sun. In consequence of this, as he supposed, he was seized with the yellow fever, and, on a relapse occurring after his return to Kingston, he was admitted into the hospital. The fever was so violent as to produce delirium, during which he repeatedly rose from his bed to commit suicide, and being then under a course of mercury, he concluded that he must, in these paroxysms, have caught cold; since, when convalescent, he experienced severe pains in the left breast, accompanied by violent cough. The latter continued unabated; and on his return to England he consulted a medical man at Limehouse, after a violent seizure, in which he

experienced a sense of strangulation, followed by a copious discharge of matter. Being regarded by this gentleman as in the last stage of consumption, he was induced to apply to the infirmary. Here he derived such relief, notwithstanding the existence of a large abscess, occupying the inferior lobe of the left lung, which I detected on the first examination of the chest, that I recommended him to go to sea again. I was induced to give this advice from having met with two or three similar cases, in which the abscess had remained stationary for some years. He again made a voyage to the West Indies : on his return from which to this country it was that he presented himself to me, affected with the formidable symptoms I have detailed at the commencement of the case.

Having satisfied myself by auscultation with the naked ear (which I invariably prefer to the stethoscope) of the extent of the disease, and after various topical applications, combined with constitutional treatment, had failed to mitigate the intense pain in his side or to relieve the suffocative respiration, I determined to introduce a small trochar into an intercostal space immediately over the seat of the abscess. I had resolved to perform this operation when I was first called in to this patient, two years previous to the period of which I am now speaking, had no improvement taken place ; but finding his health so amended on the very day I had fixed for the *paracentesis thoracis*, as to preclude its necessity, I deemed it expedient to trust to time and palliative treatment. The result proved I had not judged incorrectly. But to return to the operation. Having observed a slight tumefaction about two inches beneath the left nipple, I directed Mr. Herring, in the presence of Mr. Hudson, navy surgeon, to open it ; having first carefully ascertained that the pressure of the accumulated matter had occasioned a sensible inclination of the heart toward the right side. From the intensely acute pain felt in this spot by the patient, for which the abstraction of blood afforded no relief, it appeared to me that nature was on the point of endeavouring to work a cure by gangrene of the pleura ; and that by fixing on this as the spot of election, a ready escape would be given to the contents of the pulmonary abscess. After the divi-

sion of the integuments by the lancet, the same instrument was used to open the intercostal space; and no sooner was this effected than a quantity of air issued from the orifice with a hissing noise, followed by a discharge of opaque yellow matter similar to his expectoration, with the exception of its containing particles of a friable substance. The opening thus made continued to discharge matter, mixed with air, for the space of ten days, with surprising mitigation of his previous suffering. Having about this period imprudently sat for a considerable time in an unaired apartment, he was seized with so violent an inflammation of the bowels as to demand vigorous and decided antiphlogistic treatment. This attack produced a sudden and entire suspension of the thoracic secretion; but on the abatement of the inflammatory symptoms, his convalescence was slowly though permanently effected. It should be mentioned, that on examining his chest, I ascertained that the portion of the lung which had previously been the seat of matter and air, and from which a clear gurgling sound as well as pectoriloquism emanated, began almost immediately after the operation to be occupied by the dilated pulmonary tissue; a process indicated by respiratory murmur. Before the operation, and indeed for three years previously, the respiration of the whole of the right lung, and of the upper portion of the left, as far as a line drawn horizontally from the outside of the nipple of the left breast to the spine, had been distinct and somewhat puerile. In the inferior part of the left side of the chest, pectoriloquism was clearly marked; and nearly the whole of the lower lobe of the left lung was, as far as I could judge, the seat of an immense abscess, from which he could discharge matter at will, even to the amount of a tea-cup full. At times, during the action of coughing, I could perceive the intercostal spaces over the vomica apparently distended. Mensuration of the chest gave no perceptible difference between the capacity of the two sides; but that enlargement of the ends of the fingers, especially of the thumbs, which I have already noticed as indicative of the existence of large excavations, was in this case particularly observable. On his recovery, this unnatural tumefaction entirely subsided. I

have been thus minute in detailing this case, from my conviction of its rarity and importance. It was, as has been seen, a case of pulmonary abscess which had existed for three years, resulting from the combined effects of yellow fever and severe cold, and terminating in pneumonia. During the greater part of this time I was called upon to observe, and consequently felt a strong interest in its progress. As I had early intimated to my pupils my judgment on this case, and was sanguine in my belief of the patient's recovery, I derived great satisfaction from having the precision of my diagnosis verified.

CASE II.

CONSUMPTION CURED BY PARACENTESIS.

DAVID SCOTT, aged seventeen, admitted as an in-patient of the Infirmary, November, 1827, had been indisposed eleven years; his illness originated in his having taken arsenic by mistake. For several years previous to my seeing him, he had been afflicted with cough, and other symptoms of consumption. On entering the infirmary he showed none of the usual signs of emaciation in his person, but there was an unhealthy fulness and flushing in his face; he expectorated abundantly viscid frothy sputa, of a greenish colour, and semi-opaque. This matter, amounting to about one quart daily, was of an odour so intolerably offensive as to require the almost instant removal of the vessel which received it, in order to spare the feelings of the patients of the same ward. Conceiving that a well-regulated atmosphere, such as that of the Infirmary, (which is kept of a uniform temperature by means of German stoves,) would, conjoined with sedatives, lessen the copiousness of the discharge, I deemed it advisable to try their influence for a time. After a month's sojourn in the Infirmary, and the failure of remedial agents, finding his feet œdematous and considerable dyspnoea present, and that there was, in fact, a decided change for the worse, I resolved to have recourse to an operation. His condition, at this period, was as follows. On the right side anteriorly, from the clavicle to the fourth rib, there

was a strong gurgling rattle, indicating the passage of air through cavities containing matter. The character of the sound induced the belief that the fluid was in immediate contact with the walls of the chest. Pectoriloquism was well-marked, posteriorly, as well as anteriorly; his respiration cavernous, but there was an entire absence of the *souffle voile* (the veiled puff.) Hence I became certain, that the surface of the lung adhered firmly to the costal pleura. Percussion on the same side, as well as the naked ear, showed that some portion of the inferior lobe of the lung, a little below the excavations, still admitted the passage of air. On the left side the chest sounded well, and the respiration was distinctly audible over the whole of it, except below the clavicle, where I at once detected imperfect pectoriloquism. The operation was performed with a small trochar, in the presence of Mr. Herring, the apothecary, and of more than twenty of my pupils, by a surgeon, a fellow-lecturer of mine. The place of election was in the intercostal space, a little anterior to the digitations of the greater serratus muscle. It was my desire that the puncture should have been made between the third and fourth ribs; however, it so happened that the instrument was introduced between the fourth and fifth, upon which there immediately issued a quantity of air, with a hissing noise, without any discharge of matter. The point of the trochar, indeed, exhibited traces of pus, and although it had been fairly introduced, yet the place of election was too low to suffer the escape of the matter. Observing that the patient was lapsing into syncope during the rushing out of the air, I stopped its farther escape by placing my finger over the orifice, until this could be properly secured by bandages. On his recovering from this disposition to faint, and scarcely complaining of pain, I explored his chest with my naked ear, and in the region of the spot operated upon, I distinguished a dry, crepitous rattle, accompanied by a continued sound as of a rent, or as of something being torn within the chest. This particular noise lasted, and even increased, for some days. Subsequent to the operation, he slept well, with the aid of a composing draught; his expectoration, as well as the œdema of his legs, gradually diminished, and for a short period he exhibited

every sign of returning health. However, confinement to the house appearing to operate injuriously, it was resolved he should return to his place of abode in the country, a short distance from town. Here I saw him two or three times, and at first he displayed symptoms of amendment; but subsequently his breathing became troublesome, in consequence of an emphysematous state of his left lung, and of the other's being from cicatrization of its several cavities, and from compression also, impermeable to air. So great was this compression proceeding from contraction of the chest, that he became what is termed pigeon-breasted. As a consequence of the hepatized state of the one lung, which occurred a few months afterward, the circulatory functions were disturbed, and venous congestion gave rise to general dropsy. I recommended abstraction of blood to equalize the circulation, diuretics, and other hydropical remedies, but fruitlessly, he having been, I apprehend, prejudiced against my advice by some neighbouring practitioner. After much suffering he succumbed to this complication of disease, about eleven months from the time of his leaving the Infirmary. I was sent for to examine the body, which I did about twenty-four hours after decease. Notwithstanding the deformity which the chest had undergone, there was no perceptible contraction of the affected side, which, subsequent to the operation, had yielded the fleshy sound on percussion. The right lung was one-fourth less than the left, and adhered intimately to the costal pleura by well-organized cellular tissue, and likewise to the middle mediastinum, which, with the heart, was forced considerably into the right side of the chest, by enlargement of the left lung. This lung was altogether emphysematous, remained uncollapsed, and occupied the entire cavity of the left side of the chest. The anterior edge was rounded, and displayed vesicles which were of great size, owing to the union of several air-cells into one. The summit of the lung adhered to the chest, developing in its centre the indurated trace of cicatrization; and it presented several nodules of tubercles, surrounded by a copious deposit of black pulmonary matter. In the cavity of the pleura, there were above two pints of reddish serosity. On making a longitudinal section of the right lung, its inte-

rior, which was flaccid, somewhat fleshy, and of a marbled blue and brown colour, presented cellular lines running in different directions, being the remains of obliterated excavations; but there was not the slightest vestige of tuberculous formation. The pericardium contained about a tea-cup full of serum, and the apex of the left ventricle was unusually prolonged; a considerable quantity of fluid existed in the peritoneal cavity; the chylopoietic viscera were much congested; the kidneys were of remarkable magnitude, and their cortical substance underwent fatty degeneracy.

From a general view of the case I feel satisfied that this patient might have lived some years, had he submitted to the treatment I proposed to him on his change for the worse.

CASE III.

CONSUMPTION, IN ITS VERY ADVANCED STAGE, SINGULARLY ARRESTED.

— W., clerk in a counting house in the city, aged 25,—for whom my advice was solicited by Dr. Tuke, the humane and talented proprietor of Sidney House, Homerton, the best-regulated private establishment for the insane I have ever visited,—when first seen by me, had been for some months affected with cough, and expectoration of thick, yellow sputa. He was extremely pallid, and much emaciated, perspired profusely at night, and had occasionally been subject to hæmoptysis. It appeared that he had recently lost a brother by the same complaint: this circumstance, as was natural, seemed to prey upon his mind, and depress his spirits; and to so low a condition was he reduced, that he was given over by a respectable surgeon-apothecary who had attended him. I detected distinct pectoriloquism on the anterior and upper part of both sides of the chest; and this phenomenon, together with a strong gurgling sound, most audible in the left side, was clearly perceptible, over the whole space, from the top of the shoulders to the third rib. From partial indistinctness of the respiratory murmur, without the *râle* of pneumonia in the lower part of the right side, I apprehended that nodules of tubercles were disseminated throughout its lung. I ordered the

application of leeches to his chest, with a view to lessen perspiration, and remove congestion and morbid sensibility of the chest: and having described to him the species of apparatus for inhalation I wished him to use, he procured for himself a tube of half an inch in diameter, and furnished with a stop-cock, by turning which he was enabled to increase, or diminish, the resistance to the egress of air from the chest. With very little medicine, and that merely to regulate his stomach and bowels, a striking amendment was soon visible, through the beneficial effects of the above mechanical exercise. His progress to recovery being now rapid and decided, I recommended him to repair to the country for a short time, and to continue the plan from which he had already derived such benefit. After some weeks' residence, he returned to town well enough to resume his employment, and exhibited every appearance of health. He had gained flesh in a surprising degree, his muscles were firm and developed, his cough and expectoration had almost left him, and he was—comparatively speaking—a vigorous man. The only time I saw him after his return, I examined his chest, and the result was, on the whole, satisfactory. Pectoriloquism, indeed, could still be detected in both sides of the chest; but in the right it was imperfect: in the left, however, it was extensively manifested, though in a less degree than before, and had a metallic sound. From this last circumstance, I inferred that the lining membrane was acquiring a semi-cartilaginous structure, which I have found in many individuals will remain insensible, and be productive of but trifling inconvenience for a series of years. It unfortunately happened, that at no long period after his convalescence, he was attacked with pleurisy, probably from neglecting himself; and although he survived this latter affection, as I was given to understand, for two months, yet not applying for advice, he ultimately sunk beneath its effects.

CASE IV.

PULMONARY EXCAVATION, DISCHARGING ITS CONTENTS BY AN
OPENING MADE IN THE RIGHT SIDE OF THE NECK.

IN 1822, a child, nearly two years old, whose father was an out-door patient of the Infirmary, was brought for my advice, labouring under cough, as well as a rare disease, known under the name of pemphigus, which commenced behind the right ear, with the eruption of vesicles, about the size of almonds; and these successively extended themselves some way down the back and the same side of the neck, discharging acrimonious yellow serum, and forming deep pits in the skin. This almost intractable disease yielded, at last, to varied treatment, and the application of an ointment composed of the *scrofularia nodosa*. The part that had been affected with the disease healed up like a burned surface, but with several depressions. The delicacy brought on by this disorder, terminated in tubercular formations in the summit of the right lung, which finally softened and made a way for themselves by forcing a passage under the clavicle—the matter approaching the middle of the neck, in the direction of the cicatrized integuments. Observing that every time the child coughed a puffing up of this part took place, and that there was air within it, I directed Mr. Sturkey, the intelligent surgeon-apothecary of the establishment at that time, to make an opening here, when there immediately issued a considerable quantity of air and matter, with great relief to the little sufferer. This discharge ceased after some days: but in consequence of the extreme debility, induced by two diseases occurring in a short space of time, the child, originally of delicate constitution, did not survive beyond two weeks. Its death, indeed, was absolutely owing to a complete prostration of vital power, not to be restored either by nourishing diet, or tonic remedies. On examination there were several tubercles in both lungs, but the surfaces of the large cavity were found to be in apposition, and in more than one point slightly adherent; affording a proof, evidenced likewise by the voluminous state of the lungs,

that had the child lived, it would have triumphed over every consumptive tendency. I must not omit to mention, that the mesenteric glands were so enlarged, as to present a decided obstruction to proper nutrition of the body.

CASE V.

CONSUMPTION CURED BY PARACENTESIS.

MR. G. S., aged 30, residing in Norfolk-street, Strand, having experienced several severe losses in trade, fell into a declining state, which ultimately led to confirmed consumptive symptoms. It appeared that about three years previous to my attending him he had laboured under phthisis, from which it would seem that he recovered; and his recovery took place, as I have reason to believe, from the occurrence of bronchial affection, which after a time deserted him. However, meeting with new calamities, he relapsed into his former phthisical condition. At the time he first sought my advice, every sign indicated that his malady had made considerable progress. From the history of his case, I concluded that a secondary eruption of tubercles must have taken place at least eighteen months before; and that the softening of a tuberculous mass of large size had led to the formation of a vomica. At times he was sensible of fullness in the upper region of the left side of the chest, as if produced by accumulation of matter in the cavity, unable to find an exit; and he would suddenly be relieved by expectorating a quantity of purulent secretion, sufficient to fill a small tea-cup. He could himself distinguish the agitation of the fluid in his chest, when he coughed. On examination with the ear, extensive pectoriloquism was audible, extending from beneath the clavicle to below the third rib, and I distinctly recognized the gurgling of the fluid over the whole of the upper part of the left side of the chest. I succeeded in removing for a time, in a great measure, well-marked hectic fever, and the abundant expectoration was somewhat lessened. The fluctuations from amendment to relapse were frequent; and, among other remedial measures I advised him to go to the north of England by sea, conceiving that he might

derive benefit from the bracing qualities of the air. Remaining there a brief period, he returned to London but slightly improved in health. Convinced that medicine could only afford temporary relief, and being satisfied that his right lung, with the exception of old cicatrization, was sound, and that the inferior lobe of the left lung was in a very satisfactory state, I ventured to propose an operation to him. In spite of the ridicule thrown upon the proposal by a medical acquaintance of his, he reposed such entire confidence in me that he unhesitatingly agreed to it. Indeed, no accident ever attended the operation as performed by me, except in a case of empyema, occurring in my early practice; the particulars of which extraordinary case I unreservedly stated to a medical society in this city. Laennec gives an instance not dissimilar from that which happened to me, since both arose from an unnatural position, in my case an unheard-of one, of an important viscus.

Attended by one of my pupils, I operated with entire success. The trochar was introduced by me between the second and third ribs, in a line nearly perpendicular with the left nipple: very little matter escaped, as I had expected; for my chief object in performing this operation was to ensure the emission of the air, and thus effect a diminution of the cavity by the expansion of the inferior lobe of the left lung. I kept the punctured place open for about ten days by the introduction of a small piece of catgut, properly secured externally; when, finding that the cavity became so contracted, through the encroachment made on it by general pulmonary expansion, as to preclude all further escape of air, I withdrew it. About this time, a catarrhal affection of the inferior lobe of the punctured side supervened; and I could tell by the ear, that the pulmonary tissue in the summit of the same side was undergoing expansion. In less than two months my patient was able to go out, and had completely lost all his phthisical symptoms. In less than two years after the operation he was in the enjoyment of excellent health, the only drawback being the existence of catarrh, to which he more immediately owes his recovery.

CASE VI.

CONSUMPTION CURED BY SUDDENLY SUPERVENING EMPHYSEMA.

A YOUNG lady, daughter of a highly respectable tradesman in Little Britain, (London,) long subject to a nervous disorder for which various advice had been taken without permanent effect, became consumptive. Her decline was, in my opinion, brought on by an ill regulated use of medicine. After long manifestation of the various symptoms of phthisis, it was proposed to me to meet in consultation a physician belonging to one of the metropolitan hospitals. The view of the case taken by this gentleman was so unfavourable, he unhesitatingly gave it as his opinion to her parents—that she could not survive six weeks. Careful exploration, however, of the summit of the left lung, where I suspected the presence of a cavity, convinced me of the probable error of his conclusion. This belief, on my part, originated in detecting decided indications of emphysema from a dry crepitous rattle, with large bubbles, manifested by auscultation. This emphysematous state, I conceive, arose from a spasmodic attack of the throat, so violent as almost to produce suffocation. From this circumstance, combined with the suddenness of the emphysema, I inferred that a rupture of several air-cells had taken place, and that in time cicatrization would be effected through the consequent pulmonary dilatation. Nor did my conjecture prove erroneous ; since, though five years have elapsed from the period of which I am speaking, I am most happy to state, that this young lady is not only living, but is in the enjoyment of excellent health.

CASE VII.

CONSUMPTION CURED BY NEGLECT.

A SILVERSMITH, when in good health and circumstances, and nearly fifty years of age, was exposed to one of the most terrible of all paternal inflictions—the misconduct and subsequent legal punishment of his son.

The young man, having formed dissolute connections, had been persuaded to pass a forged note ; and, on the fact being proved against him, was sentenced to transportation. The disgrace thus brought on their hitherto unimpeachable family, operated so powerfully on the feelings both of the father, and of a daughter just entering into life, that their distress and agony of mind at last entirely undermined their health. The debility thus induced terminated in each of them in consumption. After a few months' illness the daughter died ; and the father, after extreme suffering, both of body and mind, having apparently reached the verge of the grave, and being indeed so utterly reckless of life, which he regarded only as a burden, as to neglect not only recourse to medical advice, but even common care of himself, yet recovered, and survived for many years. It was fully seventeen years subsequent to this seemingly miraculous recovery, that I attended him on the occasion of his being seized with an apoplectic fit, resulting, as I afterward had reason to believe, from valvular disease of the heart. During his convalescence from this attack, he was unfeelingly taunted by some brute in human shape with his son's disgrace ; and so wounded and humiliated did he feel by this unworthy allusion, and so deeply did it sink into his mind, that I entertain no doubt it accelerated his death. It was during my attendance on him, that learning from his wife his previous consumptive state and recovery, and perceiving that he laboured under a bronchial affection of long standing, I at once attributed the return to health which she regarded as so strange, to the ingression of catarrh on phthisis. The *post-mortem* examination verified my conclusions ; it presented well defined cicatrizations, especially on the summit of the right lung ; nodules of tubercles, yellow and opaque in the centre, and rendered inert by the secretion of black pulmonary matter in the surrounding tissue ; and the lungs were exceedingly voluminous. I will venture one observation on the case, and although it may appear harsh, regard for truth and the advancement of medical science compel me to make it ; namely, that had this person when reduced to a phthisical state recurred to medical advice, the probability is, that the bronchial affection, which was his safeguard,

would have been interfered with, its value being unknown to the profession, and his life, consequently, shortened for years.

CASE VIII.

CONSUMPTION SPONTANEOUSLY CURED.

Miss M——, about twenty-three years of age, a lady of great personal attractions and highly cultivated mind, consulted me in the summer of 1826, for symptoms of confirmed consumption; for which she had already enjoyed the benefit of Mr. Howship's advice. It was arranged that I should visit her in conjunction with this talented surgeon; and we continued to attend her for several weeks. In all the cases I have witnessed, I never met with such distressing, racking, and perpetual cough. We tried every method of relief we could possibly devise, and administered sedatives of every description, but without effect. Her disorder, instead of receiving mitigation, evidently increased; and not only were the fears of her friends awakened, but we ourselves began to despond. At this crisis, through the importunity of some near connections, her mother was persuaded to try the advice of an individual, who, although I am not aware that he had received a regular medical education, enjoyed some notoriety. On receiving a delicate intimation to this effect, and being of course inclined to humour the natural anxiety of a parent, we agreed that it might not be totally *infra dignitatem* of us, the more legalized authorities, to hear what this person might suggest, although a formal consultation was out of the question. To do him justice, we found his opinions sensible, and much to the purpose; but he considered the condition of the patient as so hopeless that he declined interfering with the case. Yet, notwithstanding these grave prognostics, the young lady, to our great satisfaction, soon after this began to exhibit signs of amendment. Her health was gradually restored, and continues, I believe, unimpaired up to the present time. From my further experience, and from cases which have subsequently come under my notice, I entertain no doubt that the cough I have already alluded to, and which was of

a convulsive character like that of the whooping-cough, must have produced a rupture of the air cells, which caused infiltration of air within their partitions. This variety of emphysema, similarly to the vesicular, renders, while it lasts, the lungs voluminous; and when happening in the neighbourhood of the diseased summit of the lung, would naturally bring the surfaces of any excavation into contact. Indeed, although from my reluctance to put the patient to inconvenience by examining the chest in the latter part of her illness, I could not positively affirm the existence of emphysema, still all my reflections on the case lead me to the belief, that she is in no small degree indebted for her cure to a cough, which in general would be considered highly injurious, and in fact appeared so to me at the time.

CASE IX.

REMARKABLE INFLUENCE OF THE PROTECTIVE POWER OF A BRONCHIAL AFFECTION.

I OFFER this case as one instance out of many, equally as decisive which I could adduce, of the value of catarrh in preventing pulmonary consumption. An eminent publisher of Paternoster-row, all of whose brothers and sisters have been the prey of consumption, is himself subject to asthma, induced by a catarrhal affection of the chest contracted in childhood. The gentleman to whom I allude is at present about fifty years of age, of a ruddy, healthy complexion, expanded chest, and excepting occasional inconvenience experienced from the above constitutional complaint, he enjoys life in every respect. It is but fair then to infer that since, out of a numerous family, he is the sole member who has escaped phthisis, this singular exemption has been owing to what might to a superficial observer appear an infliction, but which is really in this instance a providential dispensation; namely, catarrhal asthma.

Being thus naturally led to the subject, I take the opportunity of explaining a very remarkable phenomenon, exhibited in the offspring of consumptive and asthmatic individuals. That consumption is hereditary, I

have already noticed ; but an additional confirmation not only of this fact, but of the truth of the opinions I have given on the preventive nature of catarrh, may be found in the circumstance often noted by me,—that when a consumptive individual becomes asthmatic, the children born prior to the supervention of asthma exhibit a phthisical diathesis, while those who are born subsequently are entirely free from any consumptive tendency. Exceptions may undoubtedly be met with, the result of some strong exciting cause ; but, generally speaking, the rule will be found to hold good : the exception, indeed, will substantiate the rule, from the resistance, in such cases, offered by nature to the inroads of consumption.

CASE X.

COMPLICATION OF DISEASE ENDING IN PHTHISIS.

C. L., aged 50, the matron of a medical institution, and who consequently had the best advice within her reach, and was visited by several eminent medical men, was for some months subject to distressing uneasiness and irritability of stomach, which prevented the due retention of food. It being supposed that she laboured under a cancerous affection of this organ, various palliative expedients were resorted to. Her health, however, declined, and she became subject to frequent cough from which she had hitherto been free,—to shortness of breath, purulent expectoration, much emaciation, hectic fever, and night sweats. After great suffering for a lengthened period, she sank under this seemingly double affection of the stomach and chest. On examination, however, of the body, the cause of this train of disease was discovered to be a polypus of the womb, which had considerably enlarged it, and had undoubtedly excited that morbid sensibility of the stomach which, deranging the general health, induced phthisis. The only remarkable appearances presented by the stomach, were several small opaque glands in the mucous surface, near the pylorus. The lungs were excavated, and tuberculous ; and exhibited marks of inflammation in various places. I have introduced this case to prove the just-

ness of the views I have taken in the preceding portion of this work, with respect to the fatal supervention of phthisis on general debility, when unchecked by catarrh, or mechanical expansion of the chest. Had inhalation been early employed, the disease would have been at once arrested; and the patient might have lived until the appearance of the polypus through the external opening of the womb would have attracted notice, when means might have been adopted for its removal.

I have by me numerous cases in which consumption has fatally supervened on diseases both of a curable and incurable kind; but their description could only confirm what I have already, I trust, established.

CASE XI.

THE PROTECTING INFLUENCE OF CATARRH, SUPERVENING ON CONSUMPTION, EXEMPLIFIED.

MRS. HAWKES, the wife of a gentleman attached to the Bank of England, who had been under the care of a retired lecturer on midwifery at our largest hospital, without relief of her consumptive symptoms, applied to me about twelve years ago. She suffered from hectic fever, spitting of blood, and, in short, exhibited all the well-known symptoms of phthisis. At this time, my views of treatment of consumption were not matured. However, I succeeded in rendering her disease chronic: and soon after this change was effected, a bronchial affection supervened. Until the pulmonary cavity was perfectly healed, she was liable at long intervals to sanguineous expectoration; and her health consequently exhibited occasional fluctuation. During one of these temporary relapses, she consented, in order to oblige a friend whose importunities were unceasing, although at the same time her confidence in me continued unshaken, to apply to Dr. Maton, the late physician to their royal highnesses, the duchess of Kent and the princess Victoria. Like other physicians of the same standing, he possessed no very accurate knowledge of the modern improvements in the art, and, from the defective education which prevailed when he commenced his studies, had probably never turned his attention to pathological

researches. At least, I cannot otherwise account for his mistaken views of the present case. I do not intend reflecting on Dr. Maton in particular, more especially as he is now no more. He was quite equal to any of the practitioners of his day, and having had the honour to prescribe for two successive queens, was known, like most of those who have enjoyed similar posts, by his preferment chiefly. The duties of the station, doubtless, preclude the possessors from making contributions to medical science, or, at least, from extending their fame to foreign countries: a rather singular exception, indeed, to what occurs elsewhere, since we find that abroad those medical men who hold similar posts are the most distinguished by their professional attainments. To return to the case. Dr. Maton gave it as his opinion that recovery was impossible. This was accordingly reported by my patient to me, with apologies for the apparent want of confidence in my skill. I soon reasoned her out of her fears, and carefully putting by the prescription, she proceeded in better spirits from my assurances to order mine to be made up. The usual results, attendant upon catarrh in pulmonary consumption, were not belied in her case. She is at this moment ever ready to join in the laugh with me at her former trepidation; and is one, out of hundreds of instances that have passed under my observation, of the cures effected by the interposition of nature herself.

CASE XII.

CONSUMPTION CURED NOTWITHSTANDING EXPOSURE TO COLD AND
NEGLECT OF MEDICINE.

MR. D——, aged 24, had so materially impaired his constitution through irregular habits as to fall in consequence into a decline. He of course availed himself of the benefit of medical advice, which produced no very visible amelioration of his state of health. Being naturally of active habits, he grew impatient of the confinement to which he was subjected, and, tempted by the return of spring, he suddenly deserted his heated apartment, and determined, since he concluded he must die,

to die in the manner most agreeable to himself. Accordingly he betook himself to his favourite sport of fishing. This was in the month of March, a period at which easterly winds are most prevalent. The worst consequence of this apparently rash exposure was, that after a time he caught a cold, which, as it would appear, was confined to the trachea. His respiration was sensibly affected, and he laboured under a distressing fulness of the chest. He had continued subject to this affection, with an apparent increase of the violence of his disorder; but he still rejected all care and medicine, and persevered in going out. After some period, he began to exhibit signs of amendment; he gradually lost his emaciated appearance, and acquired flesh and bodily vigour; but was much annoyed of wheezing of the chest, and loud rattle in the throat. He had remained in this state for some months, when he applied to me. On examination of the chest, and hearing a detail of his complaints, not only from himself, but from the gentleman under whose care he had perviously been, I at once perceived that he was indebted for his recovery from consumption to this catarrhal state of the trachea. I may here observe, that recoveries of this kind are more frequent among the lower than the other classes of the community; owing, doubtless, to what may at first appear a misfortune, but is to the consumptive patient, in numerous instances, a blessing—exposure to cold!

CASE XIII.

CASE OF CONSUMPTION, EXEMPLIFYING THE GREAT VALUE OF INHALATION.

A GENTLEMAN, aged fifty, whose house of business is in Hatton-garden, began to exhibit decided symptoms of consumption about three years ago. Originally of delicate constitution, and inclined by his make to phthisical disorder, his health was undermined by family afflictions. Within a very brief period he lost his wife and two grown-up daughters; the two latter through the same destructive complaint, which, supervening on the decay of health occasioned by grief for

their loss, has since endangered his own life. At the time I was called in he exhibited the physical signs, as well as constitutional symptoms of the disease. He had inflammation of the inferior and middle lobe of the right lung, and expectorated no inconsiderable quantity of blood. This circumstance, indeed, is no infrequent concomitant of the above inflammatory state, when it coexists with tuberculous excavations of the lungs. He had been under the care of two able practitioners, his brother-in-law, Mr. Wallace, and Mr. Christie, a surgeon in the neighbourhood of his country residence. Both these gentlemen considered their patient in a most alarming state; and on seeing him, I fully shared their apprehensions. The first consideration was to subdue the inflammatory state; and for this purpose blood was taken from the arm, and medicines were likewise exhibited to further the end proposed. The pneumonia continuing, it became necessary to repeat the general abstraction of blood, and to follow this up by the application of leeches near the seat of the inflammatory action. By these depletory measures, the pneumonic disease lost its more violent symptoms; but, after displaying a temporary amendment, the active determination of blood to the chest recurred with its former severity. At this juncture, his brother-in-law, Mr. Wallace, who watched the case with great anxiety, considered himself fully justified in bleeding him in my absence, and that to some extent. Leeches were also repeated, and medicines given, whose chief action was determined to the kidneys. Under this plan of treatment, he gradually got rid of the formidable pneumonic complication, and it remained to counteract the phthisical disease alone; which, after a time, began to exhibit graver and more pressing symptoms. In fact, the patient was at this period in so lamentable a condition, and so utterly hopeless of recovery--being rendered additionally uneasy by the discharges of blood again appearing--that he arranged his affairs, and made every preparation which a conscientious man deems it imperative to do, when looking forward to the awful summons. Having first reduced the spitting of blood, and removed some of the more formidable external symptoms connected with phthisis, I pressed the neces-

sity of recurring to inhalation. The practice was novel to the other medical gentlemen, but I pointed out its *rationale*, and illustrated my opinions by the convincing support of cases. They yielded to my arguments, inasmuch as their reason was convinced; yet so unwillingly, that they could not enlist their hopes on my side. The utmost they at first expected was palliation; but they could not bring themselves, as they have since owned to me, to believe that inhalation could effect the healing of internal ulcers, and prevent the fresh formation of tubercles. The trial was however made; and its result up to the present date has been attended with marked success. In less than two months from the period of the patient's commencing to inhale, his chest was so much enlarged as to render it necessary for him to have his waistcoats let out; and his general health was proportionably amended. It is now two years and a half since he began this process, and for the last two he has been enabled to attend constantly to his business in town. He inhaled for many months twice a day, except at such times as slight spitting of blood, arising from the cavities not being yet entirely closed, has called for an interruption. This is a circumstance, which, although it is apt to occasion alarm in the patient, is to be expected in many instances, so long as the excavation remains. I have already adverted in case xi. to a similar instance of sanguineous expectoration, which likewise proved perfectly innocuous. The cure was in the case of this lady complete; and in that now under consideration, I am happy to be able to say, "*finis coronat opus.*"

CASE XV.

ANOTHER CASE CORROBORATIVE OF THE EFFICACY OF INHALATION,
WRITTEN BY THE FATHER OF THE PATIENT.

"DINAH MARKS, of the Jewish persuasion, aged nineteen, was suddenly seized with spitting of blood, in the beginning of September, 1833. On application to a medical gentleman, he treated the case as of no importance, but prescribed for her; and she continued under his care, without experiencing any relief, until the end of December. She was seized at this juncture with

sanguineous expectoration, similarly to the first attack ; and this was followed by a violent cough. Nocturnal sweats ensued, accompanied by loss of appetite, dejection of spirits, and other common symptoms of decline. She drooped visibly ; and her appearance awakened all the fears of her mother and myself. At this critical period, I made the acquaintance of a person who had been indebted to you for restoration from a state even more alarming than my daughter's ; and I immediately sought the benefit of your advice for her. The state of weakness to which she had been reduced, and consequent inability to inhale, prevented her from deriving, or, rather perhaps, from exhibiting outwardly, much immediate benefit from your prescriptions ; and she remained apparently in a very precarious condition. The spitting of blood came on again in the beginning of March ; and, on its removal by your treatment, you advised her at once to commence inhaling. From this moment her progress to convalescence has been rapid. With her amended health her spirits also have revived. She has been enabled to resume her business ; and no doubt can possibly be entertained of her ultimate recovery.* Her mother and myself"—

I cut short the thanks of the worthy couple, as they have nothing to do with the understanding of the case. Since the above was written, the amendment of my youthful patient has been still more decisive.

CASE XVI.

CASE OF A MEDICAL GENTLEMAN WHO HAS RECOVERED BY INHALATION.

MR. CLEMENTS, aged twenty-five, member of the Royal College of Surgeons, did me the honour to solicit my advice more than two years ago. I found that he laboured under well-marked symptoms of consumption. Since, however, they presented no peculiar features, it is unnecessary to recapitulate the long list of constitutional and physical phenomena which have been so often described in the preceding pages as concomitants of the disease : suffice it to say, that I have enjoyed the satisfaction of seeing him recover ; and that he chiefly owes his restored health to inhalation.

CASE XVII.

PROTECTING INFLUENCE OF PARTIAL EMPHYSEMA, EXEMPLIFIED IN
THE LONG LIFE OF A CONSUMPTIVE PATIENT.

MARTHA HENDERSON, of Cherry Garden street, Bermondsey, first came under my care about thirteen years ago. She was at that time fifteen years of age. It appeared that phthisical symptoms first supervened after an attack of the small pox, which had seized her naturally the year preceding. The ill health engendered by this, it is probable, gave rise to the formation of tubercles in the lungs. She exhibited no signs of consumption in her person. Her countenance was florid, not flushed; and the emaciation usually witnessed in consumptive patients was not observable. The hectic symptoms were very irregular and undefined, recurring at uncertain intervals, and those far distant. She was subject to cough and shortness of breath, influenced by changes of weather; but the most remarkable symptom was the quantity and fetor of her expectoration. It resembled the matter discharged by a phlegmonous abscess, and she could bring it up at will. She imagined from the peculiar sensation she felt there, that it proceeded from the right side of the chest; and, in point of fact, a great sympathy was discernible between the external and internal parts on this side. A swelling, and induration of, the mamma, invariably took place whenever the matter collected to any great extent within. I have alluded to the fetid odour of the expectorated matter; it was of so rank and sickening a nature, that her parents, although she was their favourite child, needed every excitement that a sense of parental duty could give to enable them to live with her. It is no exaggeration to say that it contaminated the whole house, and was perceptible as soon as the street door was opened. I have seen my own pupils ready to vomit at the disgust it occasioned, and have, used as I am to such scenes, been affected by it myself. When I first examined her, she exhibited the following symptoms:—The sound of respiration was barely audible over the right side of the chest, with

the exception of a space, about two inches square, between the clavicle and the third rib, where a loud gurgling rattle was heard, caused by the intromission of air into a cavity containing a quantity of puriform sputa. A mucous and sometimes sibilous sound was occasionally heard in some of the bronchial tubes in the inferior region of the same lung. The opposite side of the chest gave out an asthmatic wheezing, from the clavicle downward, as far as the fourth rib. The inferior part of the same side, both before and behind, yielded a dull sound on percussion; and the respiration was nearly inaudible over the same region. When she spoke, I could discover on the same side distinct pectoriloquism in the midst of this imperfect respiration. After examination I recorded the following diagnosis:—"Large excavation in the superior lobe of the right lung, containing a quantity of liquid matter; the rest of the lung on the same side tuberculated; cavity in the middle of the inferior lobe of the left lung, the remainder of the lobe in a state similar to the opposite; the upper lobe of the same lung emphysematous throughout."

I augured, no long period after this, that she was likely to live many years; feeling assured that the asthmatic condition of the one lobe of the lung would counterbalance the defects, alarming as they were, of the rest of the pulmonary apparatus. I caused her to attend on several occasions, when lecturing on diseases of the chest, to point out the phenomenon of a person's existing so long under such ravages from consumptive disease. She was seen several times at the Central Infirmary, as well as the Infirmary for Diseases of the Chest; was well known to the two apothecaries of those establishments; and must have come under the notice of above one hundred professional individuals. I was not aware for some short time after her first attendance on me of the value of that emphysematous state, which I now recognise as the preserver of her life for so long a period. Hers was at first considered by me as a remarkable case, from the circumstance of her displaying most of the external signs of health in spite of her really distressing condition. Of late years, however, I have learned to estimate properly this strong corroboration of

the truth of those views, which I have at last systematized, and reduced to proof.

A singular peculiarity, connected with the history of the patient, is, that from the age of fifteen to twenty-two her personal appearance exhibited no change. She displayed the same girlish look throughout these years; and it was not indeed until she had turned her twenty-second year that she underwent the catemenial crisis. After this, it was astonishing how quickly she acquired the aspect and proportions of womanhood. She was an occasional patient of mine, as I have already stated, for the space of ten years; applying to me from time to time whenever she was in London. In the course of these years she experienced several severe inflammatory attacks. The immediate cause of her death was, in fact, a violent pleurisy, which seized her when on a visit to some friends about forty miles from town. She endured this as long as she could hold up, without taking any medical advice; and at last hastened home, and sent for me. But she had delayed till too late. Her tongue was thickly covered with aphthæ, her lips livid, her respiration so impeded as to prevent her from lying down, and accompanied with extreme pain in the side: her extremities were cold, and she had occasional hic-cough. I saw that she was beyond the reach of medical aid; and the poor girl expired within thirty hours after reaching home.

Dissection thirty-six hours after death.—The right lung was adherent throughout, by ancient attachments, to those parts with which (though without adhesion) it is naturally in contact. The summit was indented, indurated, and covered, or capped, as it were, by a fibro-cartilaginous mass. Highly condensed cellular substance, of irregular thickness, and about an inch and a half in length, extended itself into the lung, and gave off several bonds, of the same structure, which ran in nearly a horizontal direction, and gradually lost themselves in the cellular membrane of the viscus. The structure just described was probably formed from the cicatrization of ancient vomicæ. In the same summit there was a number of tubercles, in different stages, several of them surrounded by black pulmonary matter. There was a large cavity, nearly opposite the third and fourth

intercostal spaces, containing a calcareous secretion of the size of a peach stone ; and instead of being lined by semi-cartilaginous membrane, its lining was composed of laminæ of the colour and consistence of old yellow wax. The rest of the lung contained a multitude of grayish tubercles, of unusually firm consistence, and of various sizes : on cutting it, a quantity of frothy serum flowed out. The upper lobe of the left lung completely filled the cavity of the chest on that side ; and when handled, imparted a sensation different from the natural crepitation, and somewhat similar to that caused by the displacement of some elastic fluid. Its surface exhibited several transparent vesicles, some of the size of an almond, evidently dilated air-cells. The dilatation of the cells over the rest of this lung was likewise remarkable. On making a longitudinal section of this lobe, a slight trace of cellular cicatrix was perceptible ; and two of the bronchial tubes were considerably dilated from their cartilaginous termination. The mucous membrane of all the tubes, without appearing highly vascular, was considerably thickened, and contained much yellow opaque matter. The inferior lobe, on the same side, on its anterior and lateral surface, was adherent through the medium of a false membrane a quarter of an inch in thickness, containing beneath it a gelatinous substance, transparent and almost colourless. There was a large cavity with tubercles, similar to those presented in the superior lobe of the opposite lung, but not so numerous ; and marks of inflammation were exhibited in various places. The above cavity, which occupied the centre of the lobe, and communicated by a large opening with another of less size, had a membranous lining exactly resembling in structure that which I have described as appearing in the excavation of the right side.

I entertain no doubt that there existed originally a cavity in the summit of the left lung, along with tubercles in a state of semi-transparency ; the latter of which had been absorbed, and the former healed by the first intention.

CASE XVIII.

CONSUMPTION WARDED OFF BY THE PRE-EXISTENCE OF ASTHMA,
WHICH HAD LASTED UPWARD OF TWENTY YEARS IN A FEMALE
WHO SUBSEQUENTLY DIED THROUGH CANCER IN THE WOMB.

MR. MORGAN, a general practitioner of Great Newport street, has, on various occasions, invited me to accompany him to *post mortem* examinations. I have had the pleasure of pointing out to him, in some of these associated labours, the cicatrices of cured consumption arising from enlargement of the volume of the lungs. In the case now under consideration, extensive cancerous disease had destroyed a great portion of the uterus and the bladder; had produced considerable induration of the rectum, as well as obturation of the external iliac, with a portion of the adjoining hypogastric vein on the right side; and had affected the whole of the right leg and thigh in a manner similar to what is witnessed in *phlegmasia dolens*. Notwithstanding the ill health induced by the continuance of cancer of the womb, with the deplorable accompaniments just detailed, as well as exhausting discharges for upward of two years, no symptom of consumption appeared; but the patient, at last, succumbed under general effusion, the result of protracted debility. On opening the body, I pointed out to Mr. Morgan the asthmatic state of the lungs, (with cicatrices on their summits,) which had acted as a preservative against the ingress of that phthisical condition which, without this state, would in such a case have indisputably supervened. I have had opportunities of showing similar cases to several respectable practitioners, and, among others, to my worthy friend, Dr. Helsham. My chief inducement for mentioning this case, is to impress upon the medical world the high advantage of recurring, in all instances of debility occasioned by long continued chronic ailment, to mechanical means for preventing the sure inroads of consumption, the consequence of such state. Mr. Carmichael of Dublin has indeed affirmed in the second edition of his excellent work on cancer, that he never examined the body of a patient who died with

any variety of that disease without finding the lungs tuberculated. This, in the first instance, strongly corroborates the correctness of my opinion, that consumption is a very common result of ill health produced by any ailments of long continuance; and, in the second, it shows by negative testimony the value of those means which will prevent such supervention. I have no doubt that this gentleman, in the prosecution of his pathological studies, will meet with cases in which the utility of catarrhal and asthmatic affections in anticipating or arresting phthisis will be well marked: and I feel pleasure in adding, that from his high character, and zeal for the true interests of his profession, he will, in such case, I am confident, be forward to acknowledge the accuracy of these observations, already verified by me in numerous examinations after death.

CASE XIX.

CURE OF HEREDITARY CONSUMPTION.

MR. S—, a gentleman of middle age, attached to one of the government dock-yards, applied to me more than twelve months ago, after having been under the care of a physician in large practice in the west end of the town. He presented all the usual symptoms of consumptive disease, and had a cavity in the summit of his right lung, where was well-marked pectoriloquy. He was considerably emaciated, expectorated abundantly matter streaked with blood, was harassed by incessant cough, and perspired profusely. His cough, which had made its appearance simultaneously with the first symptoms of illness, had constantly remained unrelieved. Having ascertained by auscultation that the entire of the left lung, and the lower part of the right, from the third rib downward, were perfectly healthy, I felt no doubt, notwithstanding his reduced state and the time he had been seriously ill, which was five or six months, that there were firm grounds for hope. In conformity with my usual plan, I advised the application of leeches, in order to lessen the hectic symptoms, and mitigate the

violence of the cough: they were applied at times beneath the clavicle, at others between the right scapula and the spine. The medicines ordered were chiefly diuretic and sedative. After the leeches had been employed a few times, and the hectic symptoms reduced, I recommended him to begin inhaling, which he accordingly commenced at the rate of eight or ten minutes, three times a day, and extended the period by a minute daily till he reached the term of half an hour. After continuing at this increased rate for a short time, he complained of a feeling of soreness in his chest, possibly created by it, and I advised him to lessen his term of inhaling in the same manner as he had increased it, by a minute each time, until he gradually dropped down to the ten minutes with which he had originally begun. I may observe that this course of alternate increase and decrease is often advised by me, with the best results. In about four months after consulting me he had become quite an altered man. During this time his health had occasionally fluctuated, the hectic and other unfavourable symptoms recurring: being, however, always promptly met, they produced only slight interruptions to the steady course of his amendment. These alternations, indeed, must generally be expected; and the occasional returns of hectic fever are sometimes owing, I conceive, to the softening of tubercles which have reached, or are nearly arrived at a state of maturity when the patient commences inhaling, and which, forcing their way into some of the bronchial branches, produce an irritation with which the constitution sympathizes.

It is now a year since I first prescribed for this patient. On last exploring his chest, I could not discover the slightest sign indicative of the presence of the cavity I have spoken of above: there was a slight indistinctness of the respiratory murmur perceptible in the summit of the right lung, but no remains whatever of pectoriloquism.

The above is a case of hereditary consumption; and several of this patient's brothers and sisters have fallen victims to the disease. He is now actually in the enjoyment of better health than he remembers his ever possessing; and is perfectly competent to the active discharge of business.

I may conveniently place under the same head several other cases of the cure of hereditary consumption; and I adduce them as so many proofs that the possibility of the cure of consumption in this, its worst form, does not depend upon an isolated, or fortuitous instance, but has been effected in various patients of both sexes and of different ages. I do not propose entering into any particular detail of the progress of the complaint in the respective cases, but shall cite them as facts that may easily be ascertained by any of my readers.

A young gentleman, grandson of a late celebrated financier and member of parliament, whose theory of rent is well known to the political economist, was brought to consult me about a year and a half since. His family were in the greatest alarm respecting him, as a sister of his had died not long before, who had presented symptoms precisely similar to those he was then labouring under. Such was their alarm, and their nervous apprehension of having his fears excited, that they begged me, if possible, to examine his chest in an apparently unconscious manner, as if going through a mere matter of form, so as to avoid awakening suspicion in his mind of his real state. This youth, who is now about eighteen years of age, is quite well.

Miss G——, whose father is a fashionable ladies' shoemaker in Soho-square, had been deprived of her mother by consumptive disease, and had likewise lost a brother and a sister by the same scourge, all three within the two years previous to her consulting me. When she applied to me, this young lady was in a most enfeebled state, and could hardly walk a dozen yards. Passing over other symptoms, it is sufficient to say that I ascertained the existence of a cavity in the summit of the right lung. Miss G. is, at the time I now write, in the enjoyment of excellent health.

Mr. M., a gentleman well known in one of our large manufacturing districts, came to town to consult me, about a year ago. His case had been pronounced desperate by the most eminent medical man of the city in which he resides; and indeed, there was a cavity in his left lung so extensive as almost to preclude hope. He was daily visited by me for about two months, and remained in town until the constitutional symptoms were removed.

Returning to the country, he continued a regular course of inhalation. Five months afterward he revisited London, and I begged him to have the kindness to call on Dr. Waller, lecturer on midwifery, who had then a deep interest in whatever related to consumptive disease, in order to let him hear the history and examine into the state of the case. The cavity was not then entirely healed up; but its size had been reduced by one half, and Mr. M. was so far restored as to be able to attend to the business of his factory. My last accounts from him are of the most favourable nature.

This gentleman, I must state, has lost a mother and sister through consumption.

Some short time since Messrs. Maw, the celebrated surgical instrument makers, put a domestic of theirs under my care who was labouring under far advanced phthisis. I received the subjoined letter from them the other day, in which her present state of health is satisfactorily alluded to.

"SIR,

"The bearer of this, W. B——, a young man in our employ, seems much in the same state as the female servant of ours whom you kindly attended a few months since, and who, we have the pleasure to inform you, is now enjoying a good state of health. As he is not able to pay for medical advice, we enclose a fee, and shall feel obliged by your kind attention to him.

"We remain your obedient servants,

"J. & S. MAW.

"11 Aldersgate-street, May 25, 1836."

CASE XX.

CONSUMPTIVE DISEASE SUPERVENING ON DYSPEPSIA.

MR. C——, a highly respectable tradesman, resident at Brighton, naturally of delicate constitution, fell into a most distressing state of health through long protracted dyspeptic disease. The consequences of this debilitated

condition manifested themselves in the expectoration of muco purulent matter, often streaked with blood; in harassing cough; in night sweats; in gradual and almost complete prostration of bodily strength; and in fine—in confirmed consumption. To so alarming a state was he reduced that the prayers of the congregation had been publicly requested in his behalf in the church which he attended. When he had himself conveyed to town to consult me, he was, as may be supposed from the above account, apparently a complete wreck. On exploring the state of his chest, I ascertained the existence of a well-marked cavity in the summit of the right lung; in that of the left the respiratory murmur was highly obscure. It is unnecessary to detail the varying symptoms that presented themselves, and the treatment by which they were met; as this would be a mere recapitulation of much that has gone before. During the time that he remained in town under my care he suffered several temporary relapses from the softening down of the tuberculous deposits previously formed, and underwent all the fluctuations common to the most trying symptoms of consumptive disease. These constitutional symptoms had, of course, to be treated as they arose, at times by antiphlogistics, at others by sedatives, and occasionally by tonics. At the proper juncture he commenced inhalation; and here I must again insist upon a point to which I have several times adverted in the course of this work, that although inhalation is of vital consequence in the cure of phthisis, yet it is likewise essential that the constantly changing constitutional symptoms be treated as they occur by the proper remedial measures. Hence the necessity for the watchful superintendence of the physician skilled in all the minutiae of consumptive disease, to counteract the ingression of every unfavourable symptom, to take advantage of every circumstance calculated to forward recovery, and to regulate the treatment, medical and dietetic, according to the emergency.

No case that ever came under my care has afforded more satisfactory proof of the remedial powers of inhalation, combined with proper constitutional treatment, than the present. The patient was naturally delicate, had ad his health so impaired by indigestion as to pass into

a phthisical state, which, becoming confirmed, had brought him to the brink of the grave, and—he is now well. Conscientiously can I affirm, and I do it from no impulse of vanity, (for there is too much yet to be learned for any right-thinking physician to feel vain,) that death must have been the result under any other system than mine.

CASE XXI

INEFFICACY OF REMOVAL TO A WARM CLIMATE.

MR. A., a deputy alderman of one of the city wards, was recommended to consult me, in the spring of 1835, by Alderman Harmer. He had but lately returned from Italy, whither he had been recommended to repair for the benefit of his health by his former medical adviser, who was an assistant physician to one of our London hospitals. This advice had been given after the ascertaining the existence of a cavity in the summit of the right lung, and the presence of a very slight catarrh. It was well meant, but was attended by the usual nugatory or worse than nugatory results, since during a residence of some months his complaint got worse rather than better. Singularly enough, he first heard my name mentioned abroad, and the recommendation he there received to apply to me was supported, as I have just stated, on his return to England, by Alderman Harmer. On exploring his chest, I found the cavity above mentioned still existing, and that the summit of his left lung likewise was in an unsatisfactory state. His catarrh had yielded to the influence of a warm climate, and the interposition of nature in his behalf had thus been entirely superseded. His deterioration had of course been sensible to himself, but he was not a little surprised to be told that the only safeguard, artificial means excepted, which he could possess against the inroads of consumption, was the catarrh on whose removal he had congratulated himself. It recurred not long after his return; but since, as I have already had occasion to observe, the expansion of the pulmonary tissue necessary to heal up a cavity is much more agreeably and equally

effected by inhalation, I of course would not trust to the dilatory results of a catarrhal cure, and ordered immediate recourse to the above mechanical process. The constitutional symptoms have presented the usual variations in the course of this gentleman's attendance, and some time back, finding himself much better, he was tempted to comply with a call upon him for a song at some civic festival, and a hemorrhage was the result. About three months ago he had an attack of what now goes under the appellation of influenza, and I seized the opportunity of once more examining his chest. The cavity had nearly disappeared, and the state of the rest of the thorax was in the highest degree satisfactory. This favourable result was for the most part owing to his steady perseverance in inhalation ; since, with this exception, he has been a very careless patient, negligent of himself, and seldom letting me see him ; a circumstance originating, perhaps, in his acquaintance with a clergyman who cured himself by the use of this means alone. However, this is an unsafe example, since constitutional symptoms will often arise to call for the immediate, though temporary, suspension of inhalation.

I may here observe that notwithstanding the super-vention of catarrh on phthisis is the mode by which nature endeavours, and often does effect a cure, still it is so far imperfect in its operation, inasmuch as it substitutes for the consumptive state a difficulty of breathing which often terminates in confirmed asthma. Hence the superiority of inhalation, which both acts more efficiently and entails no troublesome consequence. Hence too, although catarrh have set in so as to afford the benefit of its protection to a consumptive patient, I at once order recurrence to inhalation, not only for the beneficial agency it exerts in phthisis itself, but as a means of curing the catarrh. Its influence over the last is partly owing to the completeness it gives to the expirations. In catarrh the air is imprisoned, as it were, in the air-cells, and embarrassed breathing is the result. Inhalation here steps in as an auxiliary, and not only renders the expirations more perfect, but contributes in other respects to the removal of the catarrh.

Another benefit of inhalation, and this is a physical fact no less novel than important, is the security it affords

against the ingression of pleurisies, so frequent, according to the testimony of Laennec, in the consumptive. The same exemption from pleurisy is observable in the asthmatic.

Again, if from any cause there exist empyema, or a collection of matter, in one side of the chest, (even for months,) a state in which the lung of this side is compressed, the lung of the other side undergoes increased expansion. Now the lung thus expanded, if previously healthy, never becomes the seat of tuberculous deposite. I have verified this in several instances; and this is a strong collateral proof of the inestimable value of inhalation.

To return to the "inefficacy of removal to a warm climate." I have never known a cavity healed by a residence in a southern clime, though I have known many a consumptive case fatally confirmed by it. Three times did an officer in the army to my knowledge try a residence in Madeira: the voyages certainly did him temporary good, but he ultimately returned with the deadly enemy in his bosom—the cavity—as distinctly marked as ever.

To the above cases, which bear a slight proportion indeed to the number I have at this moment lying on the table before me, detailed as well by the thankful patients themselves as minuted by me, I append two letters from medical gentlemen illustrative of the happy results of pulmonary expansion. The first of these stands in need of no other explanation than my observing that the writer has omitted, that, on exploration of the chest, the physical signs of consumption were distinctly marked. Mr. Graves, the brother-in-law of my patient, who enjoys an extensive practice in the east end of the town, and has been long accustomed to auscultative examination, fully concurred with me in the opinion I expressed of the existence of cavities and entered into my views as to the plan of treatment I had laid down.

"DEAR SIR,

"In compliance with your request, I beg to give you the following statement relative to my health:—

"In the winter of 1832 I was troubled with a cough, after which my health continued indifferent, and in the

month of May last I had a violent attack of pain in my chest, for which a blister was applied and medicine taken, apparently with great effect; but in about eight days the pain returned with increased severity. After being twice bled copiously from the arm, and the local application of leeches and a blister, the pain was allayed so as to allow of free respiration. I was now, of course, extremely weak. In about four weeks the pain again returned in my chest. Leeches and blisters were repeatedly applied, without effecting its removal, and although the general state of my health was of course attended to, my strength of body soon so much decreased that it was thought I should not recover. Under these circumstances, I applied to yourself in July, and am happy to say that under your skilful treatment I soon began to amend, and that for the last two or three months I have entirely left off taking medicine, being now stouter and stronger than before the commencement of my illness in 1832. I have been for some time without any cough.

"Hoping these particulars may be useful to you, believe me to be, dear sir,

"Your much obliged, humble servant,

"CHARLES ROSE.

"24 Beaumont-square, Feb. 5, 1834."

It affords me much pleasure to state that this gentleman is in the enjoyment of excellent health.

The following is from a gentleman of the name of Langley, a general practitioner, and, as will be seen, a former patient of mine :—

"DEAR SIR,

"The bearer appears to me to have incipient phthisis, and has been suffering from an indomitable cough, with dyspnœa and nocturnal perspirations. I have taken blood from him, used counter-irritants very freely, and attempted to abate the pulmonary irritation by sedatives, combined with ipecacuanha and nitre. His ill state of health has reduced him so much in circumstances that he approaches you as a gratuitous patient.

Any suggestion you may be kind enough to advise shall be strictly attended to. Under your direction I have myself recovered my health, and with many thanks for your kindness, I remain, dear sir,

“Very faithfully yours,

“JOHN LANGLEY.

“36 Tottenham-street, Fitzroy-square.”

It has so happened, that within the last three years I have had several cases of consumption in medical men, under my care, and in nearly every instance the result has proved satisfactory.

I subjoin to the above testimonies to the value of inhalation the following letter from a professional friend of mine, whose abilities need no encomium from me, and who is very generally known among his brethren from the circumstance of his having been secretary to the Medical Society of St. Bartholomew's Hospital some years since. The gratification I experienced in receiving so powerful a corroboration of my opinions from so excellent a judge was enhanced by its having been entirely unexpected. Several years had elapsed since, through business, and the every day cares of life, our correspondence had ceased. To have it renewed was in itself a pleasure, which was doubled by the manner of the renewal. I shall not apologize for inserting remarks so favourable to myself. The writer is too independent to have written any other than his conscientious opinion; and I have not the false pride which would conceal praise when praise is honourable. His residence on a part of the coast to which consumptive patients are frequently sent has given Mr. Bowden peculiar opportunities of studying the nature of phthisis. I feel that he is well qualified to pronounce a judgment on any mode of treating the disease which may be propounded, and am grateful for the manly liberality with which he has come forward. There are many reasons for the opposition to my views which, I know, exist among many of my medical brethren: disinclination to unlearn is, perhaps, among the chief. Were it the only one, I should not step out of the way to notice it. I should be well contented to undergo what Harvey, Syden-

ham, and Jenner have undergone before me. The thought of the future would indemnify me for any temporary annoyance, and I should anchor my hopes upon the indisputable axiom, "*Magna est veritas et prævalebit*."—but unworthier motives have been at work. I was one of the first, if not the first, to point out the deficiencies of the medical education of the day; and had my suggestions been attended to, many M. D.'s might have been spared the pain of their confessions before the medical committee lately sitting at Westminster.

"Dawlish, Devon., June 20th, 1834.

"MY DEAR DOCTOR,

"I have just purchased and read your book on consumption with much gratification. I perfectly coincide with your views, in every particular, and am satisfied of their accuracy. It is, perhaps, paying myself a compliment at the expense of my professional brethren to say, that I have, ever since I had the pleasure of knowing your sentiments, differed from them as much as you do. With regard to their treatment of that plague-spot in the English constitution—consumption—it has ever appeared to me founded on false principles, or dictated by the hereditary prejudices of our profession: of you they are particularly jealous, and would gladly rob you of your dearly earned knowledge and fame. I call it dearly earned, for I remember the many unpleasant situations we have been placed in, among the haunts of London disease and misery, particularly in the purlieus of Saffron hill. I must say honestly, and without flattery, that I never knew one of your profession who laboured so zealously, and constantly, as you did in *post mortem* examinations; or who was so thoroughly conversant with morbid appearances, and their anatomical detail and minutiae. I have myself experienced the accuracy of your observations in the persons of several of my own patients; and so nearly have our ideas coincided that I have been in the habit of making my patients inhale through an Œsophagus tube, to oblige them to inspire deeply. I am quite certain I have cured two cases of tubercular phthisis by your means.

* * * * *

"Very sincerely and truly yours,

"R. B. BOWDEN."

It is about twelve months ago that Mr. Ward, a gentleman practising in the vicinity of London, took my advice for consumptive disease, at the suggestion of Dr. James Blundell. I detected a well-marked excavation in the summit of the right lung, and was informed by him that he had had several attacks of hemoptysis. Without entering into any details, which indeed would present no novelty either respecting symptoms, or my usual practice, I at once give the satisfactory result, which is—restoration to health. I shall conclude these instances of cure among my medical brethren by adducing the name of Mr. Paine, son of the ingenious inventor of the illuminated dials now becoming common in our churches, who consulted me about three years since, and has been enabled to resume his profession, which he had then abandoned as beyond his failing strength.



CASES GIVEN BY DR. HOHNBAUM IN THE PREFACE TO HIS
TRANSLATION OF "CONSUMPTION CURABLE."

CASE 1. A female, 36 years of age, of weak and sickly constitution, skin white and of delicate texture, neck long and slender, chest confined, complexion very pale, habitual stoop, had suffered in childhood from scrofula, the glands of the neck having frequently suppurated. Her father is living, but has laboured from a boy under disease of the chest, and has often appeared to be sinking into a decline. Some years after her marriage, she lost all the outward signs of scrofula, but became subject to an occasional dry cough, which would disappear after a time. In 1833, anxiety, occasioned by the illness of her only child, brought on a return of this cough, which, however, did not leave her as usual, but seemed to increase constantly, and awakened much apprehension. The patient was greatly dejected at this, despaired of recovery, lost sleep and appetite, fell away in flesh, and

complained of such extreme weakness as to be hardly able to leave her bed. The coughing continued to increase, and was particularly harassing in the evening, during the night, and on awaking. At first there was no expectoration; but afterward she brought up a little phlegm the first thing in the morning. The cough was accompanied by pain in the chest, and occasional twitches; her breathing was short, especially when going up stairs, and was considerably affected by every bodily exertion, however slight. The pulse gave no indications of actual fever; but the patient complained of frequent shiverings, with burning hands, and morning perspirations. Her whole appearance answered to the commencement of *phthisis scrofulosa*.

Having continued in this precarious condition for a year, reckoning from the first manifestation of the cough; having been under the care of two physicians, without deriving any benefit; and having tried a variety of medicines to no purpose, I recommended the system of inhaling, advocated by Doctor Ramadge. Following exactly the rules laid down in his work, I ordered her to inhale the vapour from an infusion of hops in vinegar twice a day, for a quarter of an hour each time. This period was subsequently extended to half an hour.

The patient had scarcely tried this method for a week, to the exclusion of all others, when her sleep became sounder, and her cough seemed less frequent. In the course of another week it was perceptibly less so; and the expectoration had diminished. Her respiration gradually became more free and deep, she gained flesh and strength, the perspirations left her, her appetite returned, she recovered her serenity of mind, and, in short, rapidly approached a state of convalescence.

At the present time, she has used inhalation constantly for three months; the expectoration has entirely ceased; the cough too has almost left her, being so slight as to be scarcely deserving of notice. The patient has returned to her household duties, and, in favourable weather, walks daily in the open air; in fact, with the exception of a little weakness and irritability, which, however, were always peculiar to her, she is in perfect health. Still, for security's sake, I have advised her to continue inhaling.

CASE II. A female, 21 years of age, healthy from childhood, but of consumptive make—that is, neck long, chest narrow and compressed, skin white and delicate, with rosy transparent cheeks, and light brown hair, eye-brows, and eye-lashes—contracted, about fifteen months since, a dry, obstinate cough; in all probability, while heated by excessive dancing. It was accompanied by a pain in the chest; but was entirely disregarded by her, until she began to expectorate, at times, about half a cup full of bright red, frothy blood. This sanguineous expectoration was removed by appropriate medicine; and, in the course of the following summer, the cough, likewise, was partially subdued.

I was called in to see her, in the autumn of this year, aggravation of the above symptoms having taken place, and found her in the following condition: her rosy complexion gone; pallid, much emaciated, strength greatly impaired; chest contracted and sinking in, respiration quick and short, a rattle during each inspiration, particularly marked in the right lung, where a cavernous sound was yielded on percussion; a sense of pain in the same spot with occasional twitchings over the chest; frequent cough, partly dry, and in part accompanied by a yellowish green expectoration, which, in the course of the four and twenty hours, might have filled a good sized cup. Her appetite was small, sleep short and interrupted by frequent cough, pulse quick; toward morning she fell into profuse perspirations, and fits of shivering at noon, and toward evening there came on a dry, burning heat, with hot hands, flushing of one cheek in particular, and extreme thirst; there was œdema of both feet, and menstruation had ceased for three months.

Under these circumstances, I ordered eight leeches to be applied to the right side of the chest: but no relief being afforded to the painful sensations there, I had six ounces of blood taken from the right arm a few days after. At the same time, the patient commenced inhaling, taking no medicine, but observing a suitable regimen. The progress of the patient soon convinced me of the good effect of this method; and she herself was much cheered by her sleep being sounder and less broken by coughing. This amendment continued uninterruptedly, so that in the space of six weeks the cough

and expectoration had decreased to such an extent that the latter amounted in the four and twenty hours to no more than about half a table-spoonful. At the same time, the pain in the chest had disappeared, the rattle spoken of above was no longer audible, the perspirations, shiverings, and swelling of the feet had left her, her appetite had returned ; and what with the refreshing nature of her sleep, the increase of her strength, and the amendment in her respiration, the patient was so much recovered as to be able to take half an hour's walk every day in the open air. Still the sensation of heat toward evening, the flushing of the one cheek, the frequent pulse, and the fact of the patient's not increasing visibly in bulk, overcast the prospect of perfect recovery.

After these favourable symptoms had lasted about a week, the patient was persuaded to take a ride with a friend when it blew a cold east wind. The consequence was that in the evening of this day she was sensible of cold in the head, hoarseness, pain in the throat, and increased cough. Relying on the happy results which Dr. Ramadge has observed to attend the supervention of catarrh, I ordered the inhalation to be discontinued, and patiently awaited the issue. But I was soon conscious of the disappointment of my hopes ; for notwithstanding the patient got rid in a few days of the cold in the head, the hoarseness, and the pain in the throat, yet the earlier symptom of pain in the chest returned with more than its former violence. She now also felt a pain in the left side, in the neighbourhood of the fourth rib ; her respiration grew shorter, her cough became worse, the expectoration increased to its first amount, the nightly perspirations returned, the feet swelled, and altogether her state of health was worse than it had been when I first saw her.

I now recurred to the inhalation ; and again the results were so favourable that the cough and expectoration decreased, but not to the degree that had taken place previously to the relapse.

The unfavourable symptoms before described again made their appearance, and the patient soon afterward died in a violent fit of suffocation.

Although it is doubtful whether inhalation would have effected a cure in this case, in which pulmonary con-

sumption had already made such considerable progress, I can scarcely doubt that it would have proved successful had it been adopted at an earlier stage. The patient was loud in her praise of its beneficial effects, and I have no reason to dissent from her, as I am firmly persuaded that I should not have affected more, but most probably much less with other remedies.

It was discovered by dissection that the immediate cause of death was rather effusion within the cavity of the chest than extensive suppuration.

There is one point in the above case which requires notice. Dr. Hohnbaum was correct in his general principle when he concluded that the ingression of catarrh on phthisis was a favourable symptom, but wrong in its application to this particular instance. The disease was so far advanced that he should not have intermitted the inhalation, and trusted, as he did, to the beneficial influence of the catarrh solely. Indeed, as I have already observed, the process of inhalation will not only effect thoroughly what nature, by means of catarrh, too often brings about imperfectly, but will obviate the emphysematous state which is entailed by the catarrh.

The following letter has this moment reached me. It is in every way too gratifying for me to hesitate to publish it. By so doing I shall best fulfil the writer's intention, and shall be enabled to prove to the most skeptical the positive powers of inhalation. The hypercritical may refuse to admit assertions as to the changes which pass inside the chest, but can hardly withhold credence from those proved by measurement to take place outside.

Tenby, 26th Oct. 1834.

DEAR SIR,

I trust you will be pleased to hear of the success of a course of six months' inhalation in my case.

In order to bring to your recollection the circumstances under which I waited upon you for advice, I beg to refer you to your note book, in which, if I recollect aright,

you will find the 29th of last March specified as the date of my first visit. But as you may have kept no memorandum, I may remind you that mine was a case of sinking in of the sternum so as to press on the right ventricle of the heart; you likewise described the arch as being under compression, and the ribs fixed. The attendant symptoms I need not detail.

I commenced inhaling on the 30th of March. You directed me to inhale three times a day; but being under great suffering at night when I assumed a reclining posture, I thought it desirable to inhale four times daily, which I followed up for the first four months. Finding myself greatly relieved at the expiration of this period, I have inhaled for the last two months only three times a day. It was not until the 22nd of April that I could manage to inhale continuously half an hour at a time; and on that day my girth was taken immediately under the nipples of the breast by Mr. Shaw, our medical attendant.

May 22d,	Increase the 1st month,	five-eighths of an inch.
June 22d,	" 2d "	three-eighths "
July 22d,	" 3d "	one-half "
Aug. 22d,	" 4th "	three-eighths "
Sept. 22d,	" 5th "	one-fourth "
Oct. 22,	" 6th "	three-eighths "

Whole increase, two and a half inches.

In the first measurement my girth was two feet ten and a half inches.

October 22d it was three feet and one inch.

In June I took six inspirations and six expirations per minute while inhaling. In August I took only five inspirations and five expirations during the same time. This month I have taken only five inspirations and four expirations or the reverse—showing, I presume, the increased volume of the lungs.

This increase is, I think, great at my time of life, as I am forty-six years of age. The benefit I have derived is necessarily very great. My ribs, judging from the heaving of my breast when I breathe, have, I should conclude, come into tolerable play. My lungs are amazingly strengthened: I can now sing at the very

top of my voice, but not long together. I sleep in general well, but I am not able to lie on my left side. The sinking of the sternum, however, remains exactly the same, and occasionally my pulse intermits—generally whenever I stoop to do any thing. Nevertheless, I can walk at a great rate without inconvenience, and do walk from three to five miles every day. I have gained considerable flesh, and my appetite is always good.

I do not hesitate to say that I think inhaling has done me more good than all the *blue pills* I ever took for bilious attacks.

If this communication will tend to illustrate any point of practice, you are quite at liberty to use my name and reference.

I am happy also to inform you that Mr. Shaw has made a cure of consumption in this neighbourhood by following your system. I visited the individual when he was thought to be in a dying state, and he is now about pursuing his usual avocations.

I remain, dear Sir,

Your obliged,

J. GREAVES.

The following statement is copied from the Royal Kalender, and Court and City Register for England, Scotland, Ireland, and the Colonies, for the Year 1839.

Infirmary for Asthma, Consumption, and other Diseases of the Lungs,
10 Artillery-street, Bishopsgate.

President, DUKE OF SUSSEX.

Vice Presidents, MARQUIS CAMDEN, MARQUIS OF HERTFORD,
MARQUIS OF ANGLESEY, EARL OF RIPON, LORD CALTHORPE,
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THE FOLLOWING EXPLANATIONS OF SOME OF THE MEDICAL TERMS EMPLOYED IN THIS WORK MAY BE OF USE TO THE GENERAL READER.

Abscess,—A cavity containing purulent matter produced by suppuration.

Aorta,—The great artery of the body which arises from the left ventricle of the heart, forms a curvature in the chest, and descends into the abdomen.

Anfractuous,—Winding, full of windings and turnings.

Aphony,—A loss of voice.

Amenorrhæa,—Suppression of the menses.

Arteries,—Vessels originating from the heart. By their means the blood is carried to every part of the body for nutrition, &c. The action of the arteries, called the pulse, corresponds to that of the heart.

Arterial,—Belonging to the arteries.

Auricles,—Those portions of the heart that receive the blood from the veins.

Autopsy,—An examination after death, post mortem.

Aspera arteria,—The trachea, or windpipe.

Astringent,—Binding, contracting, opposed to laxative.

Auscultation,—A method of distinguishing diseases, particularly in the thorax, by observing the sounds in the part, generally by means of a tube applied to the surface.

Bronchii,—The ramifications of the trachea.

Bronchial,—Belonging to the bronchia, or ramifications of the windpipe in the lungs.

Calcareous,—Containing lime.

Cava,—Hollow.

Catarrh,—A defluxion of mucus from the membranes of the nose, fauces, and bronchiæ.

Cervix,—Neck.

Cartilage,—Gristle, a smooth, solid, elastic substance, softer than bone.

Colliquative,—Wasting, indicating a morbid discharge of animal fluids.

Cellular,—Consisting of cells, or containing cells.

Cicatrizate,—To heal or be healed, to skin over by a scar.

Coalesce,—To grow together, to unite, as separate bodies.

Collapse,—A falling, sinking, a low and feeble condition.

Congestion,—A collection of fluids in an animal body, an accumulation of blood in a part.

Conjunctiva,—The exterior covering of the eye, and inner parts of the eyelids.

Cuticle,—The scarf skin.

Clavicula,—The clavicle, or collar bone.

Clavicles,—The collar bones.

Dyspnæa,—Difficulty of breathing.

Demulcent,—Softening, mollifying, mucilaginous.

Depletion,—The act of diminishing the quantity of blood, usually by the lancet.

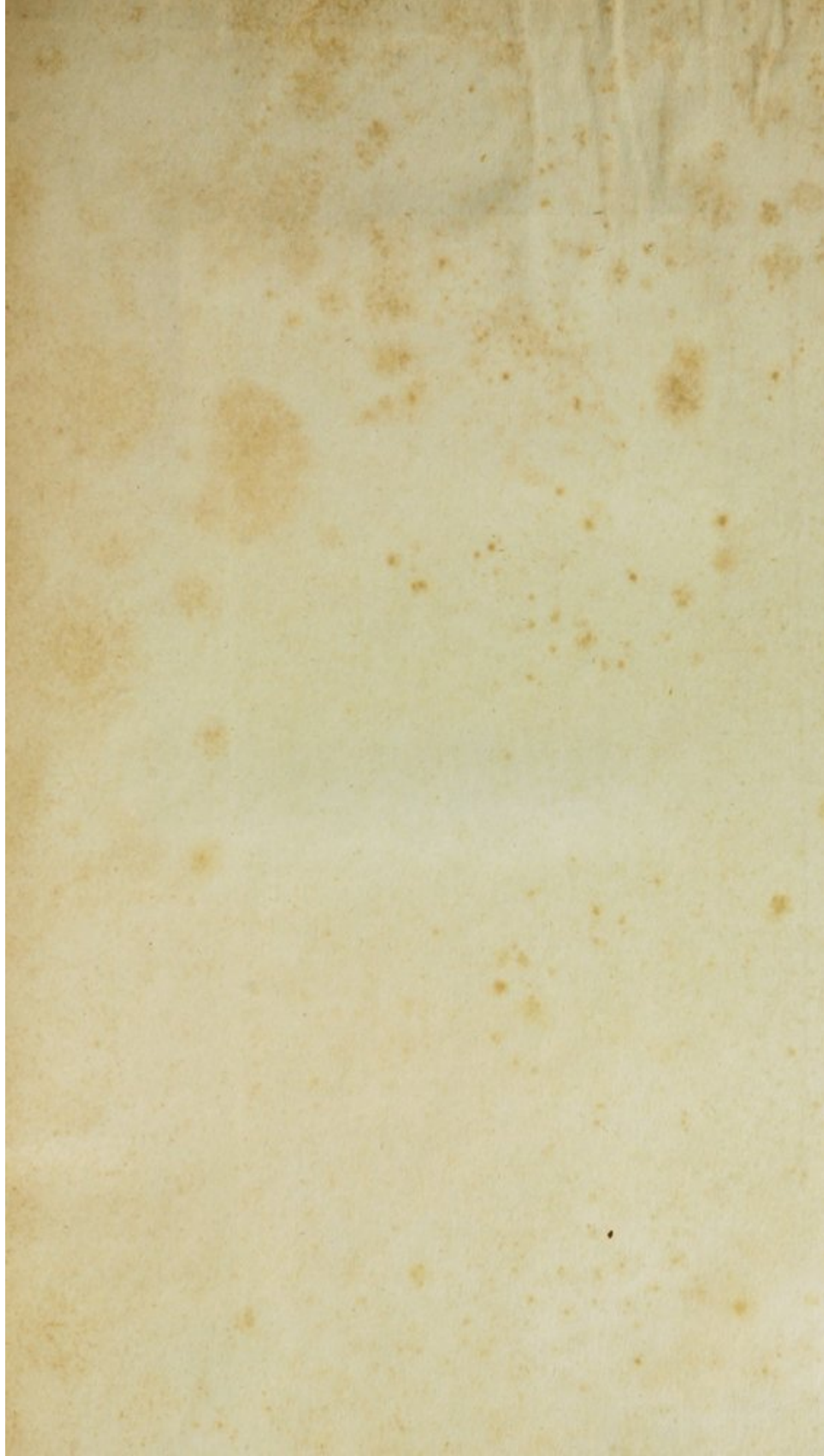
Diaphragm,—The muscular partition between the chest and abdomen.

Dilatation,—The act of expanding, expansion.

- Diagnostic**,—The sign or symptom by which a disease is known or distinguished from others.
- Effusions**,—Fluids generally colourless secreted into cavities where they do not belong.
- Eliminations**,—Animal products thrown off or expelled from the system.
- Emphysema**,—A distention of cells in any part of the body, particularly the lungs, by air or gas.
- Epispastics**,—Blisters.
- Encysted**,—Enclosed in a body, bladder or vesicle.
- Eschar**,—The crust or scab occasioned by burns or caustic applications.
- Febrile**,—Feverish.
- Fibre**,—A fine slender body or thread which is a constituent part of muscles.
- Fistula**,—A deep narrow ulcer.
- Gland**,—A soft body formed by the union of a great number of vessels for the production of the various animal secretions.
- Granule**,—A grain, a small particle.
- Generic**,—Pertaining to a genus or kind.
- Gelatinous**,—Resembling jelly.
- Gangrene**,—The first stage of mortification.
- Hemoptesis**,—A spitting of blood.
- Hepatisation**,—A consolidation, as when the lungs assume a consolidated form like liver.
- Hypertrophy**,—A morbid increase in the size and weight of any organ, as the heart.
- Induration**,—The act of hardening.
- Interstitial**,—Implying spaces between the constituent parts of any organ.
- Infiltration**,—A passing of liquids into portions of the body where they do not belong.
- Lamina**,—Scales or plates. It is used to express the foliated structure of bones or other organs.
- Lamellar**,—Disposed in thin plates or scales.
- Larynx**,—The upper part of the windpipe.
- Laryngeal**,—Pertaining to the larynx.
- Lobe**,—A part or division of the lungs.
- Lymphatics**,—Vessels which convey only colourless fluids, as lymph.
- Marasmus**,—A wasting of flesh without fever, or apparent disease, a kind of consumption.
- Membrane**,—A thin expansion very much resembling the skin in its structure and appearance, and constituting the inner lining of the lungs, stomach, bowels, &c.
- Mucous membrane**,—The membrane lining the alimentary canal, lungs, &c.
- Morbid**,—Diseased.
- Mucilage**,—A solution of gum.
- Mucilaginous**,—Pertaining to mucilage.
- Nodule**,—A little knot or lump.
- Narcotics**,—Drugs causing stupour, stupefaction.
- Œdematous**,—Puffy, retaining the impression of the fingers.
- Pancreas**,—A gland of the body situated between the bottom of the stomach and the spine.

- Pathology*,—That part of medicine which explains the nature of diseases, causes, and symptoms.
- Parietes*,—The fleshy walls that enclose a cavity.
- Paroxysm*,—A temporary increase or aggravation of disease.
- Parenchymatous*,—Pertaining to the solid parts of glands as distinguished from the superficial or membranous coverings.
- Pericardium*,—A membrane surrounding the heart.
- Pectoriloquism*,—The act of transmitting articulate sounds through the walls of the chest.
- Phthisis*,—Disease of the lungs occasioned by tubercles, pulmonary consumption.
- Pleura*,—A thin membrane that covers the inside of the thorax.
- Pleurisy*,—An inflammation of the pleura.
- Peripneumony*,—An inflammation of the lungs.
- Pneumonic*,—Pertaining to the lungs, pulmonic.
- Post mortem*,—After death.
- Prophylactic*,—Preventive, defending from disease.
- Pus*,—White or yellowish matter generated in ulcers and wounds in the process of healing.
- Secretions*,—The act of producing from the blood substances different from the blood itself, or from any of its constituents.
- Spleen*,—A soft granular organ in the left and upper part of the abdomen.
- Sputa*,—Things ejected or spit from the mouth.
- Subacute*,—Of a grade of action below the highest or most acute point.
- Suppuration*,—The morbid action by which pus is deposited in inflammatory tumours.
- Supervening*,—Coming in an additional way.
- Sudorifics*, *Diaphoretics*,—Medicines causing sweat, exciting perspiration.
- Stethoscope*,—A tubular instrument for distinguishing diseases of the chest by sounds.
- Thyroid*,—A cartilage of the larynx, the *pomum Adami*, or Adam's apple in the throat. It is larger in men than in women.
- Tonics*,—Medicines used for increasing the strength or the tone of the animal system.
- Tissue*,—A particular arrangement of nervous or muscular fibres in the organs.
- Thorax*,—The chest, that part of the body situated between the neck and the abdomen, containing the lungs, heart, pleura, &c.
- Trachea*,—The windpipe.
- Vesicle*,—A little bladder or a portion of the cuticle separated from the skin and filled with some humour.
- Ventricle*,—A small cavity in an animal body.
- Vena porta*,—The large vein that conveys the blood from the abdominal viscera to the heart.
- Vena azygos*,—A solitary vein in the right cavity of the thorax.
- Viscera*,—Internal organs, as the liver, stomach, kidneys, lungs, heart, &c.
- Viscera abdominal*,—The glands and hollow organs of the abdomen.





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