

An inaugural dissertation on pulmonary consumption.

Contributors

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Pulmonary consumption.

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AN

Inaugural Dissertation

ON

PULMONARY CONSUMPTION.

BY EDWARD DELAFIELD, A. B.

—————For want of timely care,
Millions have died of medicable wounds. ARMSTRONG.

NEW-YORK:

PRINTED BY JOHN FORBES & CO.

78 WALL-STREET.

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1816.

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M.B.

TO

SAMUEL BORROWE, M. D.

ONE OF THE SURGEONS OF THE NEW-YORK HOSPITAL,

THIS DISSERTATION

IS DEDICATED,

AS A TESTIMONY OF GRATITUDE

FOR THE MANY VALUABLE PRACTICAL LESSONS

RECEIVED FROM HIM

BY HIS FRIEND AND PUPIL,

EDWARD DELAFIELD.

18

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 309

1950

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FOR THE ADVANCEMENT OF SCIENCE

AND THE EDUCATION OF THE PUBLIC

IN THE PHYSICAL SCIENCES

AND IN THE HISTORY OF SCIENCE

INTRODUCTION.



THE attention of Physicians has for several years past been excited to the consideration of that inveterate enemy of the human race, the CONSUMPTION. Several works have been published, new remedies proposed, and the practice of former physicians revived with modifications and amendments, in the treatment of this disease. At one period, Consumption had been so long considered without the reach of remedies, that it had almost ceased to excite the enquiries of the learned in medicine. Fortunately, however, the spirit of enquiry has revived; and it is believed that the treatment of this dreadful malady has been so far improved, that many are rescued from its grasp, and the sufferings of those who are still its victims, are materially mitigated. Notwithstanding, it appears that in this city the mortality from Consumption has increased rapidly of late years. Formerly, its climate was considered remarkably salubrious, and diseases of the lungs were rare. Lieutenant Governor Colden, in a series of remarks on the climate and diseases of New-York, made seventy years ago, has the following observations: “The air of the country being almost always clear, and its spring strong, we have few consumptions or diseases of the lungs. People inclined to be consumptive in England, are often perfectly cured by our fine air; but if there be ulcers formed, they die. The climate grows every day

better, as the country is cleared of the woods; and more healthy, as all the people that have lived long here testify. This has even been sensible to me, though I have lived but about twelve years in this country; I therefore doubt not but it will in time, become one of the most agreeable and healthy climates on the face of the earth."^a

These anticipations have not been realized; but, on the contrary, Consumption has become the prevailing disease of our city. The causes of this increase of the disease are numerous. We are told by Dr. Rush, that it is unknown among the Indians of North America; that it is scarcely known by those citizens of the United States who live in the first stage of civilized life, and are generally called the first settlers; that it is less common in country places than in cities, and increases in both, with intemperance and sedentary modes of life; that ship and house-carpenters, smiths, and all those artificers, whose business requires great exertion of strength in the open air, in all seasons of the year, are less subject to this disease than men who work under cover, and at occupations which do not require the constant action of their lungs. By applying these facts to the situation of this city, the causes which have produced the increased mortality from consumption, become evident.

1. The growth of the city, and consequent state of the atmosphere, most distant from that of the pure air of the country.

2. The increase of all those causes which have enervated the bodies of men, and rendered them more susceptible to the influence of a variable climate. Among these are, augmentation of wealth, and consequently, luxury; increased dissipation, with its accompaniment, impru-

^a Amer. Med. and Phil. Reg. Vol. I.

dence in dress; and extension of manufactures, affording greater opportunity for sedentary employments, and exposure to an insalubrious atmosphere. In general, the causes are, all those circumstances which tend to remove man farthest from that situation, in which the body is possessed of the greatest vigour, and of course, least subject to disease, that of the savage. In proportion as the city has enlarged, these causes have continued to increase, and probably still will do so. But in Great Britain, they appear already to have attained their acme, and as a consequence of the improvements in medicine, the causes not increasing, the disease is on the decline.^b

The following statement will show the proportion, which the number of those who die from consumption, bears to the whole number of deaths, in this city, during the last twelve years.

In 1804, 499 persons died from Consumption, and were to the whole number of deaths, 2125 as 1 to 4.25.

In 1805.	462.	2352.	1.	5.09
1806.	354.	2225.	1.	6.28
1807.	464.	2312.	1.	4.94
1808.	429.	2014.	1.	4.69
1809.	413.	2108.	1.	5.1
1810.	569.	2158.	1.	3.79
1811.	595.	2524.	1.	4.24
1812.	669.	2553.	1.	3.81
1813.	562.	2229.	1.	3.96
1814.	618.	2507.	1.	4.04
1815.	572.	1974.	1.	3.8

^b Dr. Lettsom observes, that Consumption is decreasing in Great Britain.
Med. and Phil. Reg.

From this statement it appears, that the number of deaths from Consumption has gradually increased. The average proportion during the period mentioned, is as 1 to 4.36. Nearly one fourth of all those who die in this city are destroyed by this fatal disease.

These facts prove indeed that the power of medicine has little control over so destructive a malady. But it should not therefore paralyse our exertions. From what has been done already, in improving our knowledge of its nature and treatment, a hope may be indulged that consumption may one day, like many other maladies formerly deemed incurable, be placed no longer among that number.

INAUGURAL DISSERTATION
ON
PULMONARY CONSUMPTION.



THE term Phthisis, or Consumption, in its broadest sense, is applied to all those diseases, in which the system sinks under a gradual waste of the powers of life. These diseases may be divided into two great classes—1. That form of Consumption in which the lungs are unaffected.—2. Phthisis Pulmonalis, properly so called, where the lungs are the seat of the disease.

Under the first class are included,

1. Atrophia, or Consumption from want of nourishment, or excessive evacuations, but without hectic fever; excluding all those forms of disease produced by immoderate evacuations, in which the lungs become affected.

2. Tabes, accompanied with hectic fever, frequently attended with disease of the mesenteric glands, and produced most commonly by scrophula.

The second class, Phthisis Pulmonalis, to the consider-

ation of which this essay will be more immediately confined, may be also subdivided into,

1. Primary, where the lungs are the original seat of the disease, and as a consequence, the general system becomes affected.

2. Secondary, where the system being first reduced by any debilitating cause, the lungs become secondarily affected, as a symptom of the general disease.

These two forms of Consumption, although somewhat similar in their symptoms, yet proceed from opposite causes, and require opposite treatment. The one is a disease of pure inflammation; the other of unmixed debility. In the one, an active antiphlogistic treatment is necessary; in the other, the system requires all the support, which tonics and good nourishment can afford.

Phthisis Pulmonalis is thus defined by Dr. Cullen, "*Corporis emaciatio et debilitas, cum tussi, febre hectica, et expectoratione purulenta.*" This definition is peculiarly incorrect, because it leads us to neglect, the first stage of the disease; if the symptoms of an Incipient Phthisis were stated to us, and we were asked, what was the disease, from this definition we would be perfectly at a loss for an answer. Except the cough, none of the symptoms there stated are to be found in the first stage of Consumption. And yet that is as truly a part of it, and of as much importance to the practitioner, as the last stage, which alone is included in Cullen's definition.^c

^c The following judicious remarks on this subject are made by Bayle, in his "*Recherches sur la Phthisie Pulmonaire, d'après la notion que j'ai donnée de la*

Agreeably to this definition, in his view of Phthisis Pulmonalis, Dr. Cullen makes ulceration of the lungs and hectic fever essential to its existence, and seems rather to consider the preceding symptoms a cause of this ulceration and fever, than as constituting an integrant part of the disease.

Nor is the place assigned by him to Phthisis Pulmonalis, in his Nosological Arrangement, more correct than his definition of it. He places it in the order Hæmorrhagiæ, and considers it merely as a consequence of Hæmoptysis. Even if it were always excited by hæmorrhage from the lungs, it would be improperly thus placed; but as that, even by Dr. Cullen, is considered merely as one among many exciting causes, the arrangement is altogether inadmissible. But if it be admitted, according to the view which will be hereafter taken of Hæmoptysis in this treatise, that it is rather a symptom than a cause of Consumption, the propriety of another arrangement will be evident. Accordingly Phthisis Pulmonalis is placed by Dr. Hosack, as one of the Phlegmasiæ. This disposition appears to be the most proper that has hitherto been suggested, and as such I shall adopt it. But before we

Phthisie Pulmonaire, on voit que je dois regarder comme Phthisiques des individus qui n'ont ni fièvre, ni maigreur, ni expectoration purulente: il suffit que les poumons soient affectés d'une lésion qui tend à les désorganiser et à les ulcérer. On ne doit pas regarder cette lésion, une simple cause de la Phthisie, mais comme le premier temps de cette maladie, puisque la Phthisie est cette lésion même dont la continuation et le developement successif amènent la mort. Il seroit donc bien peu raisonnable de vouloir attendre, pour reconnoitre la Phthisie Pulmonaire, qu'elle fut constamment parvenue à son dernier degré qui est le moment où ses symptômes pathognomoniques sont bien marqués."

can ascertain the character and treatment of any diseases, it is necessary minutely to examine their causes and symptoms.

Primary Phthisis Pulmonalis first claims our attention. Its predisposing causes may be mostly arranged into five classes, as they depend on organization, age, sex, occupation and climate.

Organization predisposes to Consumption, by mal-conformation of the chest, which may be either natural or accidental; and an hereditary internal structure not depending on the external form of the thorax. For it is observed, that in some instances, those who have every part of the external configuration, such as is generally attributed to persons predisposed to Consumption, yet shall be free from this disease; while on the other hand, some whose chests are externally perfectly well formed, have been subject to catarrhal and inflammatory complaints of the lungs, terminating in Phthisis. The form of chest peculiar to many Phthisical patients, "is occasioned by the sternal or breast-bone being pressed too much in upon the substance of the lungs: thus the clavicles and shoulder-blades are thrust out of their proper position, and made to assume, in some measure, the form of wings, to which indeed they have been with propriety compared, just raised from the body and about to expand for flight. By this internal direction of the sternum, the full expansion and proper sweep of the ribs is likewise prevented, and an unnatural curvature or prominence is occasioned on either side of the breast, with a corresponding central de-

pression."^d This is the peculiar form to which the term narrow chest is generally applied. A flattened or any other unnatural figure of the chest may produce the same injury.

The thorax may become accidentally malformed from any violence done to it, particularly during infancy. A frequent source of it is the mode of fashionable dress adopted by females. The corset, to which I allude, when worn only with moderate firmness, and by those not otherwise predisposed to Phthisis, serves but to add elegance and beauty to the female figure; but when applied with the object of converting into a delicate and slender waist, one naturally otherwise, it cannot but do injury. By immoderate pressure, it converts a well formed chest into the deformed and narrow one, or at least an approximation to it, which has just been described. In our own city and time, too many fatal examples of the deleterious effects of this fashion have occurred, to permit us to retain any doubts on the subject.

The internal constitution of the body predisposing to Phthisis, independent of external form, has been generally attributed to scrophula. English authors are particularly fond of making Consumption another form of that Protæan disease. We are much disinclined to concur in this opinion from the fact, that the mass of those who labour under the disease in question, and cases too, which, after

^d Dr. Reid.

death show that tuberculated state of the lungs, generally ascribed to scrophula, evince no other of the numerous symptoms of that disorder. The supposition that tubercles were scrophulous, probably originated from the opinion that they are diseased glands; an idea now sufficiently exploded. This hereditary predisposition we know to exist, but of its mode of action we are totally ignorant. In this city there are many melancholy examples of whole families successively falling victims to Consumption, and sufficiently proving its hereditary nature. But an hereditary predisposition does not necessarily produce Consumption. It is not uncommon for parents who inherit this taint, to remain free from disease of the lungs, by the pursuit of laborious occupations. Nor is it more uncommon that the children of these very parents, whose active industry had preserved their lives, and amassed them wealth, should by being enabled to indulge in ease and luxury, fall victims to an inherited Consumption.

So the females of a family are sometimes all consumptive, while the males are free from pulmonary disease, in consequence of the more sedentary mode of life of the former.

Although no period of life, from infancy to old age, is exempt from Consumption, but all are liable to its attack, yet at a particular age, it is observed to appear more frequently than at any other. This period commences about, or soon after the age of puberty, and terminates at thirty-six; the period at which inflammatory diseases most generally occur.

Sex also gives a predisposition to Consumption. Females are more frequently affected by it than males. This may be attributed to their greater delicacy of constitution, and nervous temperament. Their comparatively sedentary habits of life add to this peculiar constitution. But improper compliance with the requisitions of fashion and taste constitutes not a small part of the greater susceptibility of females to Phthisis. Independent of the use of corsets, the small quantity of clothing frequently worn by them, under circumstances when it is most necessary, is a fruitful source of mischief to their health. In the coldest of our winter nights, will these fair devotees of fashion issue from rooms, heated to a degree never experienced in our hottest weather, into the chilling air of midnight, with less clothing than they use at noon, when the sun exerts his greatest power. The next day brings with it "a violent cold," and this cold is too frequently the foundation of the Consumption which destroys them.

Occupation in life is another source of the ravages of this disease. Particular occupations subject those engaged in them to the respiration of air impregnated with foreign materials, irritating the lungs, either by their chemical or mechanical action. Substances acting mechanically upon the lungs, are inhaled by stone-cutters, millers, hair-dressers, bolters, coal-heavers, scythe-grinders, persons engaged in pointing needles, chimney-sweepers, dressers of flax and feathers, spinners in wool, and others employed in similar occupations. Chemical agents are taken into the lungs by manufacturers of acids, and all other volatile

corroding substances. These materials constantly acting upon the lungs, produce irritation and slight inflammation, terminating in Phthisis. The operation of any of these causes is favoured when the occupation requires a stooping or other awkward posture of the body to be maintained. This cause may act independently of the former also, and hence, students, and clerks writing at their desks, taylors, shoemakers, &c. are liable to this disease. To the same causes are frequently added, a sedentary life, and confinement in hot rooms; hence “ a surgeon of London whose opportunities of observation are very extensive, relates of the gilders of that city, who work in heated rooms, that six out of seven are said to die consumptive in their apprenticeship.” Sedentary habits of life, accompanied with hard study, and too intense application of mind, predispose literary men to Consumption. Loud public speaking, blowing on wind instruments, glass blowing and other circumstances requiring a laborious and continued action of the lungs, produce the same effect. Any one of these causes may frequently exist without injury, but their combined action seldom fails to produce pulmonary disease.

Climate was enumerated under the predisposing causes of Phthisis. That of our own latitude affords an example. Its variableness, increased by contiguity to the ocean, together with the prevalence of the moist and chilling north-east winds, is probably the agent which produces this effect. The climate of Great Britain is not less unfavourable to health, from similar causes, with the addi-

tion of its greater moisture; for it is observed that cold combined with moisture is peculiarly dangerous to the consumptive. On the other hand, inland countries, not exposed to the moist winds from the ocean, are free from this disease. Hence, the inhabitants of Russia and other parts of the north of Europe, notwithstanding the severity of their climate, are very little affected by Consumption. The habits of the people, probably assist in producing this immunity from pulmonary disease. Sir John Sinclair, in a communication to Dr. Reid, attributes it in a great measure to the employment of furs, cloaks and other modes of clothing, which preserve an uniformity of warmth throughout the body; to the great care taken by all classes of people to preserve their feet from cold and damp; to the different modes of communicating heat to their apartments; and to the constant use of the vapour bath. Similar observations were made by Dr. Cogan, who in a letter to Dr. Beddoes, remarks that the people of Holland are exempt in a great degree from this disease, so prevalent among the English, and ascribes the difference to the contrast observable between the two countries, in the construction of their habitations, and in the peculiarities of dress.

Debility from the want of accustomed stimuli, is mentioned by Dr. Hosack as another cause of consumption, and he instances those confined in the State Prison. The want of accustomed air and exercise, the deprivation of the use of spirituous liquors and good diet, to which the

prisoners had been accustomed before their confinement, was observed by him to have produced this disease.

Depressing passions of the mind, and a consequent too free use of spirituous liquors have also been noticed by authors among the predisposing causes of Consumption.

The last of these causes which I shall notice, is the disposition of the system to form calculous deposits in the lungs, generally in consequence of a plethoric habit. Phthisis from this cause however is rare; of nine hundred patients examined by Bayle, only four were of this description.

These various causes having either separately or conjointly predisposed the body to Phthisis, are most frequently excited into action by a common catarrh; which becomes the more active by frequent repetition. The danger arising from catarrh is not a little increased by the popular mode of treating it: stimulating spirituous drinks, and a vast variety of remedies of the same class are the usual prescriptions. Almost every body has an infallible remedy for a cold; some of them innocent, but many injurious. The common prejudice in favour of "feeding a cold" increases the mischief, and unfortunately, the disease not generally affecting the system sufficiently to destroy the appetite, as in many other maladies, nature does not prevent the practice. Abstinence, cooling acidulous drinks, with perhaps a gentle saline cathartic, are the safest and most effectual remedies in curing a common catarrh, when of its usual slight form. At the same time, inhaling warm air, by means of Mudge's apparatus, is a valuable and grateful auxiliary to this treatment. Ca-

tarrh is so common and generally so easily cured without any consequent ill effects, that it is too apt to be neglected. Many a patient, labouring under incipient Phthisis, has been supposed to be affected by merely a "trifling cold," and the only opportunity for curing the disease has been lost. "The evil becomes irremediable before it calls either the attention of the parents, the friends, or even the physician, who has not been familiarly conversant with the fatal consequences of this disease."*

Pneumonia is not unfrequently an exciting cause of Phthisis. Like catarrh, its frequent repetition is more dangerous than a single attack. Pneumonia may indeed act merely as a predisposing cause of Consumption, by leaving the lungs in a debilitated and irritable condition, favourable to the production of that disease; but it is an exciting cause, when in consequence of inflammation of the lungs, suppuration follows, and vomica or empyema is the consequence. This shews the close analogy between Phthisis Pulmonalis and ordinary Pneumonia. In the first, the inflammation being seated in the cellular and comparatively insensible portion of the lungs, is slow and gradual, and the consequent suppuration forms in the same manner; while in Pneumonia, the membranous as well as cellular portion of the lungs being involved in the disease, the inflammation is rapid and violent, and must soon terminate in either resolution or suppuration. Hence Phthisis Pulmonalis was appropriately called by Dr. Rush a "*Pneumonicula*." No word could more accu-

rately describe the nature of the disease. That acute observer has drawn an excellent parallel between the two diseases, and concludes with observing, "In short the pneumonia and Consumption are alike in so many particulars, that they appear to resemble shadows of the same substance. They differ only as the protracted shadow of the evening does from that of the noon-day sun." It is remarked, however, that all cases of Pneumonia terminating in suppuration are not necessarily fatal. If a predisposition to Phthisis do not exist, or the constitution be not too much debilitated, a vomica may burst and be discharged, and the patient recover.

A third exciting cause of Phthisis, is the suppression of accustomed evacuations. These evacuations are the menses, the lochia, the discharges in Leucorrhœa, and from ulcers, fistulæ and issues. Retention of the menses producing Chlorosis, being a consequence of debility, does not excite primary Phthisis Pulmonalis, but the secondary form of the disease. Suppression of the menses, however, not unfrequently excites a Consumption, bearing all the characters and requiring the treatment of primary Phthisis. The plethora, consequent on the cessation of the menses, has often the same effect.

Asthma, by the constant irritation to which it subjects the lungs, becomes an exciting cause of Consumption.

Several eruptive diseases, as Scarlatina, Small-Pox and measles, often produce the same disease.

Morton also enumerates stone in the kidneys and bladder, gout and rheumatism, as causes of Consumption.

By the same author, contagion is supposed to communicate this disease. Morgagni, Van Swieten, Home and Heberden all hold this opinion. And Morgagni relates that Valsalva, who was predisposed to Consumption, was so satisfied of its contagious nature, that he constantly avoided being present at the dissection of the lungs of persons who had died of that disorder.

Dr. Rush maintains the same doctrine, and relates that the late Dr. Beardsley of Connecticut, informed him that he had known several black slaves affected by a Consumption, which had previously swept away several of the white members of the family to which they belonged. In these slaves no suspicion was entertained of the most distant relationship to the persons from whom they had contracted the disease: nor had grief nor fatigue, been supposed to have had the least share in debilitating their bodies. The force of so much authority with the evidence adduced, constrains us to admit the communicability of Consumption by contagion. But if this agent has any effect, its action must be extremely limited, and extend no farther than to those previously predisposed to the disease. For daily examples without number occur of the constant attendants upon those labouring under Phthisis remaining perfectly free from that malady.

Violence done to the lungs by blows or other injuries of the chest, has in some instances, excited Consumption.^f

^f Dr. Lind states, that out of 360 patients whom he attended between July 1, 1758, and July 1, 1760, in consumption, the disease was brought on one fourth of

Foreign bodies conveyed accidentally into the lungs has produced the same effect. Morton relates a curious case where three nails had passed into a person's trachea and destroyed him, by inducing Consumption.

Bayle also enumerates a form of Phthisis, which he calls cancerous, arising in patients in whom the cancerous disposition has become constitutional. It is, however, extremely rare; only three cases having occurred to him among the 900 whom he had examined.

Hæmoptysis and tubercles are mentioned by most authors as exciting causes of Consumption, and remain to be examined. So frequently did Dr. Cullen consider Hæmoptysis the cause of Phthisis, that he placed the latter disease in his Nosology, merely as a consequence of the former. The impropriety of this arrangement has been already touched upon.

On this subject, I would suggest the following facts. Hæmoptysis occurring in persons not predisposed to Consumption, except the quantity of blood lost be so great as to produce it by mere debility, very frequently may be easily cured without danger of any consequent disease. Indeed not only in such cases consumption is not induced by it, but that disease has actually been prevented, by the occurrence of hæmorrhage from the lungs, relieving that inflammation, which like the inert physician, by withholding the lancet, would have suffered to destroy his

them by falls, bruises and strains, received a year or two before it made its appearance.

patient. Dr. Rush relates two cases of inflammatory Consumption attended by a hæmorrhage of a quart of blood from the lungs, in which the patient recovered; and ascribes their recovery entirely to the loss of blood. Wounds and other injuries of the lungs frequently heal, when no predisposition to Phthisis exists, as easily as in other parts of the body. Of this fact also Dr. Rush affords an example. A British officer informed him, a few days after the battle of Brandywine, in September 1777, that the surgeon general of the royal army had assured him, that out of twenty four soldiers admitted into the hospitals, during the campaign of 1776, with wounds of their lungs, twenty-three recovered. These facts prove sufficiently that the constant motion of the lungs does not prevent the healing process taking place in them as easily as in other parts of the body.

In most instances, the spitting of blood which is supposed to have produced the Consumption, has occurred a considerable period before the Phthisical symptoms appeared. During this interval perhaps the patient was perfectly well. Can it be supposed, that the inflammation necessary to form an ulcer, and the process of ulceration itself, could so long be going on unperceived, without producing any irritation of the lungs? Is it not more probable, that the Hæmoptysis was recovered from, and that the same cause which produced it, at length produced the Consumption?

Hæmoptysis, then, I would consider, as very seldom, perhaps, never, being the cause of Consumption; but in

all those cases in which it is assigned as the cause, merely a symptom of the incipient stage of the disease. The symptoms accompanying hæmorrhage from the lungs, are no other than those of incipient Phthisis. They are thus accurately described by Dr. Reid. "When subsequent to a sense of weight and oppression in the breast, which scarcely amounts to a feeling of pain, together with cough, difficult respiration, and general lassitude, a quantity of blood is suddenly, and in a convulsive manner, discharged from the mouth, there can remain small doubt respecting the part from which it proceeds. If the discharged blood be of a florid colour, and together with the above symptoms, a saltish taste be perceived in the mouth, and the patient become sensible of a degree of irritation in the upper part of the trachea, the nature of the affection is rendered altogether unequivocal." Every symptom here enumerated, occurs in the early periods of Consumption.

Nor have we any better reason for believing tubercles to be an exciting cause of Phthisis. These appearances are indeed very frequently found in dissections of the lungs of those who have died of Consumption. Of the nine hundred patients examined by Bayle, 624 had tuberculated lungs. Tubercles were formerly considered as indurated glands, and generally attributed to a scrophulous constitution; but we are assured by Baillie, in his morbid Anatomy, "that there is no glandular structure in the cellular connecting membrane of the lungs; and on the inside of the branches of the trachea, where there are follicles, tu-

bercles have never been seen." These tubercles are roundish bodies, of a firm consistence, and frequently a cartilaginous structure, but often containing decidedly purulent matter. By the union of several of them, vomicae are formed, which are only larger tubercles. May not the formation of these bodies be sufficiently accounted for by the preceding inflammation, and they be considered therefore a consequence, rather than a cause of Consumption? Dr. Rush insists that tubercles are the effects, and not the cause of pulmonary Consumption; and remarks as a farther evidence of this opinion, that similar tumours are suddenly formed on the intestines by dysentary, and on the omentum by a yellow fever. He refers to cases of the former in the dissections of Sir John Pringle, and one of the latter mentioned by Dr. Mackittrick, in his inaugural dissertation on the yellow fever, published in Edinburgh, in the year 1776. Dr. Hosack, in his Lectures on the Theory and Practice of Physic, advocates the same doctrine, and enforces it, by remarking, that similar tubercles are formed in the parenchyma of the brain, the liver, and the kidneys, in which no small glands have yet been detected, and where, as in the lungs, there is nothing but cellular membrane and vessels. It is his opinion, that it is an union of a number of these cells in a state of congestion that constitutes tubercles or vomicae—that in some instances they heal, the matter is absorbed, and they remain in a scirrhus state, the patient becoming perfectly restored to health;

and hence the remark of Dr. Simmons, that tubercles may exist without Phthisis.

These are all the principal predisposing and exciting causes of Phthisis Pulmonalis. Some few others are mentioned by authors, but they are of either very doubtful agency, or too rare to deserve notice.

The disease having been excited into action, produces a succession of symptoms which are now to be detailed. Its attack is frequently extremely insidious and slow; at other times, well marked and rapid in its progress. It is to this insidious and gradual mode of attack, that Consumption owes much of its fatal character. Before the unfortunate patient suspects himself to be seriously indisposed, it but too frequently happens, that his fate is sealed, and death is inevitable. This arrives in part from the resemblance that Incipient Phthisis bears to a long continued catarrh. It frequently is only marked in its earliest periods by a slight, dry, hacking cough, trivial during the day, increased at evening, and most troublesome at night; a sense of weight about the breast, and some little difficulty of breathing, increased on taking any unusual exercise, or ascending a height; the pulse is slightly accelerated, and sometimes only so after taking food: occasionally, burning hands and feet, and a slight flush in the cheek are the only symptoms of fever. These symptoms may be so slight as hardly to attract the patient's notice; at other times they are more severe and distressing. Frequently, on any little unusual exercise, the cough is increased, the patient feels a pain in

the side, and expectorates a frothy mucus, and blood is discharged from the lungs. This, perhaps, is the first symptom which excites the alarm of the patient. Expectoration of blood is generally preceded by a saltish taste in the mouth, and a sense of irritation at the upper part of the trachea. It is known to come from the lungs and not the stomach, by its frothy appearance and admixture with mucus, while that from the stomach is generally dark coloured and mixed with the food ; and by being brought up by coughing and not vomiting. The blood coming from the stomach too, is generally in larger quantity than that from the lungs.

In addition to these symptoms, the patient is often affected by an increased sensibility of the lungs, observable on any exposure to cold, change of dress, or going from a warm to a cool apartment. There is a sense of soreness in the lungs attended with a sensation of stricture about the chest. Pain is felt in the side or breast, and the patient lies with difficulty on the side affected. The pain is frequently lancinating, and shooting through the breast, sometimes in the direction of the mediastinum, at others, confined to one side.

As the disease advances, the symptoms of fever become more marked. The tongue is dry, attended with thirst, loss of appetite, nausea, and occasional vomiting, and a desire for acids. The secretions generally are checked. Perspiration is diminished, and the skin is hot and dry. The urine is at first diminished in quantity, and high coloured. The menses, in females, are either

suppressed or very irregular. The bowels are frequently costive. The patient passes restless nights, and is prevented sleeping by a tormenting cough, or if he sleeps, is troubled with dreams. In consequence of indigestion, pain is felt in the situation of the stomach, attended with flatulence. The patient begins to have a pallid countenance, and emaciation gradually takes place.

These symptoms may continue a length of time, gradually debilitating the patient. But the expectoration which at first was frothy, in small quantity, and coughed up with difficulty and pain, increases, and gradually passing through all the stages between mucus and pus, at length becomes decidedly purulent. A new train of symptoms follow. Hectic fever makes its appearance, commencing with irregular cold and shivering fits, returning frequently during the day. It soon, however, assumes a decided character, and has two marked exacerbations, the one at noon, the other at night. These exacerbations begin with a sense of coldness, succeeded by heat, and at night terminating in profuse perspiration. During the chill and hot fit, the cough, pain, and dyspnœa are aggravated, but relieved by the sweating. The pulse before the paroxysm is accelerated and weak, during its continuance quick and strong, but abates as the perspiration flows. The countenance is generally pale, but during the exacerbation is marked by a circumscribed crimson flush, which occurs mostly at noon, but may be produced by taking food or any other cause

of excitement. The profuse sweats do not occur after the exacerbation at noon, but in the morning, while the patient is warm in bed, with the system relaxed by sleep. The perspiration is principally confined to the superior parts of the body, as the neck, breast, and about the shoulders. The tongue is often very clean during hectic fever, but sometimes furred. The bowels are generally torpid, alternating with diarrhœa.

The disease continuing to advance, the cough and dyspnœa increase, and the hectic symptoms become more marked and violent. Emaciation rapidly goes on, the face looks sharp and haggard, and the absorption of fat makes the eyes appear remarkably large and prominent. At the same time, the teeth appear unusually white and beautiful. The appetite becomes extremely irregular, the pulse more accelerated and diminished in strength. The mind is extremely vacillating, at one time depressed, at another, elated with hopes of recovery. Profuse diarrhœas, alternated with obstinate torpor of the bowels, exhaust the patient; the eyes assume a ghastly and pearly whiteness; the mouth becomes filled with aphthous eruptions; sometimes hiccup ensues; the patient's mind becoming more and more disturbed, delirium comes on, which soon terminates in death.

An assemblage of some or all these symptoms, constitutes Phthisis Pulmonalis, differing however very materially in number, degree and violence in different patients. They are variously modified by a number of attending circumstances, which require some attention.

Many authors declare, that an expectoration of pus does not always attend this disease. The matter may be confined in a vomica, and the patient die with the symptoms of Phthisis before it bursts. Nor does a purulent expectoration necessarily indicate the existence of an ulcer in the lungs. The matter may be poured out from the secreting surfaces of the lungs without ulceration, precisely as it comes from the adnata of the eye after ophthalmia, or the urethra in gonorrhœa, where no ulcer is suspected. In the New-York hospital, dissections of numerous patients who have died of Phthisis, sufficiently prove the fact in question.

Nor does pain in the side or breast, always accompany this disease. Dr. Reid remarks that many cases have occurred in his practice, where no pain in any part of the chest has been observed during the whole course of the disorder. "I have witnessed," says Dr. Heberden, "many deaths from genuine pulmonary consumption, where dissection has demonstrated an entire destruction of the substance of the lungs, and where through the whole course of the disease, neither expectoration of blood, difficulty of breathing, nor pain in the side had been present." On the other hand, pain in the side may occur merely as a consequence of the debilitated or irregular action of the muscles, as in walking, and should not be mistaken for a symptom of Consumption.

In the course of the disease, dropsical effusions, constituting Ascites, Hydrothorax and Anasarca, are not

unusual, as in other diseases where great debility is produced.

In the advanced periods of Consumption, diarrhœa constitutes a prominent and troublesome symptom. This is sometimes produced by any cause which checks the profuse sweats; while on the other hand, if the diarrhœa be checked, the cough and dyspnœa, which perhaps had been relieved by it, frequently return with redoubled violence. Under these circumstances, the condition of the patient is hopeless indeed.

The approach of summer frequently mitigates the sufferings of the consumptive, and gives them hopes of returning health; but when winter returns, these hopes are blasted; the patient sinks again into his former condition, and most generally is cut off during the cold season.

The symptoms of Phthisis are frequently suspended or mitigated by any cause producing a new determination in the system. The most prominent of these causes is pregnancy. It almost invariably happens that the symptoms of Consumption are relieved by the occurrence of this event; but after parturition the disease returns with all its former violence. The occurrence of mania has produced the same effect, and has even entirely cured the disease; but generally, when the mania is removed, the symptoms of Consumption return. An attack of rheumatism has frequently relieved phthisical complaints. Dr. Rush refers to three clinical patients in the hospital of Pennsylvania to exemplify this observation. In the same

manner gout is observed to alternate with Consumption, and during its paroxysms, the complaint of the lungs is relieved. Frequent cases are related, in works on this subject, of eruptions on the skin alternating with Phthisis Pulmonalis.

Long continued ulcers, or fistulæ in ano not unfrequently relieve pulmonic complaints in phthisical patients; while the healing of these ulcers or fistulæ reproduces the disease with tenfold violence.

A farther circumstance worthy of remark in this disease is, the willingness with which the patient suffers himself to be flattered with hopes of recovery. Notwithstanding he sees daily victims of Consumption falling around him; notwithstanding the perfect assurance he has of the small number of those who recover from it; to the last his hopes are not abandoned. Although depressed at night by the evening exacerbation of hectic fever; in the morning, from his comparatively comfortable situation, his hopes revive. Happy is it for these miserable sufferers that they do not despair. In a disease whose progress is frequently so slow, and whose event is but too often so sure, fortunate it is, that a solace remains to cheer the unhappy patient.

The duration of Consumption is extremely various; from a few weeks to fifty years have patients laboured under it. In Bayle's statement of the duration of the disease in two hundred cases in which the patients were destroyed by it, it was between two months and two years

in 168 cases, four were less than two months, and 28 remained more than two years.

From the detail of symptoms which has just been given, it is evident, that there are two distinct stages of Phthisis Pulmonalis, each characterised by peculiar symptoms, and requiring peculiar treatment. The first, incipient, or acute stage as it is variously termed by authors, is the stage of inflammation, and terminates as soon as purulent expectoration and hectic fever commence. The second, confirmed, or chronic stage commences where the first terminates, and ends most generally in death. We would not however assert, that these stages can always be accurately distinguished, and a line drawn between them. On the contrary, hectic fever may occur early in the disease, before any expectoration of pus takes place, and inflammatory symptoms frequently attend its advanced stage. In general, the distinction can be made, and must necessarily guide the prudent physician.

Having taken a view of the causes and symptoms of Phthisis Pulmonalis, we are now prepared to investigate the proximate cause of the disease. From the nature and extent of these symptoms, it appears evidently a disease of the whole system, and not confined merely to the lungs. The proximate cause, as taught by Dr. Hosack, in his lectures, is, an inflammation of the lungs, terminating either in a purulent secretion, or ulceration in their substance. This opinion is much strengthened by the analogy before remarked between

Phthisis Pulmonalis and Pneumonia. It is a little singular that Dr. Rush, notwithstanding he had remarked this close analogy, and although he speaks of inflammatory fever as a part of the disease, and prescribes blood-letting in its treatment, should yet have made debility its proximate cause. This is only one instance among many, of physicians arriving at precisely the same modes of treatment by directly opposite routes. If that theory of inflammation be admitted, which makes debility its cause, so far it is also the proximate cause of Phthisis Pulmonalis. In the secondary species of Phthisis, hereafter to be considered, debility may be fairly ranked as the proximate cause, and the indications of cure correctly drawn from it. But in the primary disease under consideration, if we were to found our indications on this basis, and thence deduce the propriety of exhibiting powerful tonics in the first stage of the disease, when brought to the test of practice, its error would soon become sufficiently glaring.

Various other causes have been successively treated of by authors, but to shew their inconsistency and absurdity, it is only necessary to observe that, "the existence of an acid or an alkali, of chemical acrimony, or mechanical changes in the blood, of corroding volatile particles, and even of animalcula in the lungs, have been vaguely conjectured to be the cause of pulmonary ulcer and hectic fever.[§]"

§ Dr. Reid.

Assuming then, inflammation of the lungs, and consequent ulceration of their substance as the proximate cause of Phthisis Pulmonalis, we naturally deduce the following indications in the treatment of the disease.

1. To endeavour to relieve the inflammation of the lungs, and promote its resolution.

2. If, notwithstanding all our efforts, suppuration takes place, to give sufficient support and tone to the system to enable the ulcers to heal.

In fulfilling these indications, our first object is to remove the remote causes, where it is possible. If the patient's occupation is one of those which predisposes to Consumption, unless it be abandoned, or at least so modified as to correct the objectionable parts of it, we cannot hope to cure the disease. If the disease arise from the suppression of an accustomed evacuation, our utmost endeavours must be made to restore it. Should suppression of the menses be the cause, means calculated to produce their return must be resorted to. If an ulcer or fistula has healed up, they must be re-opened, or issues established in more convenient situations. In short, the rule is plain and simple. Remove the remote causes, wherever it is practicable.

Among the remedies which are necessary to fulfil the first indication, the most prominent is Blood-letting. This remedy has been strongly advocated by many of the most distinguished authors who have written on Consumption; and its propriety admitted by all under certain circumstances. Probably, most of the injurious

effects attributed to it, may be accounted for by a proper distinction not having been made between Primary and Secondary Phthisis Pulmonalis. When bleeding has been practised in the secondary form of the disease, it has been generally injurious, and hence an odium has been cast upon its employment in any circumstances. In the same manner, it has done mischief, when used too late in Primary Phthisis, and thus another groundless argument furnished against the remedy. But the indiscriminate use of blood-letting is not here contended for. Its judicious and cautious use, when inflammatory action is evident, alone is intended to be advocated. On the other hand, too timid practice may induce us to withhold the lancet when it is necessary; and we may thus do as much injury by losing the proper time for action, as we would have done by pushing the remedy too far. It is difficult to fix the period beyond which it is improper to bleed in Consumption. Dr. Hosack insists that as long as there is any pain or soreness on taking a full inspiration, the lancet is necessary. This rule is not applicable to practice; for if we adopt it, we may bleed the patient until he dies. Until that moment will the pain in some instances continue. It is not unfrequent, after the patient has been exhausted by colliquative sweats, and profuse diarrhœa, for pain in the breast to recur at intervals, a few days before death: and what practitioner, under such circumstances, would feel himself justified in using the lancet? But this rule is incorrect in another point of view. In some cases, it will

prevent our using this valuable remedy, when it is necessary. On the authority of Dr. Reid, it is asserted, that pain is not always present in Phthisis Pulmonalis; and may not occur during the whole course of the disease. A reference has been already made to Dr. Heberden to prove the same fact. On this subject it is impossible to fix any precise rule. The strength and habit of the patient, the urgency of the symptoms, and state of the pulse, must all be recollected and adverted to in making up our judgment as to the propriety of the remedy. In general, perhaps we may say, that after the formation of matter is perfectly ascertained, it is improper to bleed. This, however, is not without exceptions. Cases sometimes occur, after this period, in which the symptoms of high inflammatory action arise, and where the lancet is indicated. It is now generally admitted that the buffy appearance of the blood is by no means an infallible evidence of the necessity of the repetition of blood-letting. Nor is its cupped form a better proof of the existence of inflammation. Many writers have observed, that the buffy coat appears in the blood drawn in Consumption at the latest periods of the disease. A remarkable and decided case of Enteritis, occurred during the last winter, in the New-York Hospital, in which very large and repeated bleedings were made use of, with the good effect of curing the patient: and yet, neither buff nor the cuplike form appeared in the smallest degree in the blood drawn. This case alone is sufficient to prove, how equivocal are these appearances of the blood, as

tests of inflammation. Nevertheless, the judicious practitioner will not fail to observe these circumstances, and as they so frequently accompany inflammation, will consider them, when attended with other evidences, as properly influencing his judgment on the propriety of bleeding.

If the abstraction of blood from the system generally is useful, no less so is it when drawn from the part itself, by the application of cupping-glasses, and the scarificator to the chest. This mode of obtaining blood is peculiarly useful in those frequent cases, where the patient is too much debilitated to bear the loss of much blood, but the existence of inflammatory action makes its abstraction necessary.

Emetics are a powerful remedy in the treatment of Phthisis. They not only promote expectoration, and relieve the distressing cough in the first stage of the disease, but by their general relaxing effects upon the system, are useful in reducing inflammatory action. The use of this remedy, however, should not in general be commenced until blood-letting has been premised; otherwise in plethoric habits, full vomiting might induce hæmoptysis. Practitioners have differed very much in the choice of emetics proper in this disease. The antimonial preparations and ipecacuanha, as acting more generally upon the system in reducing excitement, and from their good effects in other febrile diseases, appear to be the most proper. But in the last stage of Consumption, where our object is to relieve the pulmon-

ary symptoms, without debilitating the patient, the sulphates of zinc and copper are preferable.

Emetics are not only useful when exhibited for the purpose of full vomiting, but medicines of the same class given as diaphoretics are also proper. With this view the various preparations of antimony are in use. Small doses of the Antimonial powder combined with calomel have been found, perhaps, one of the best sudorifics that can be employed, and as such are frequently useful in Phthisis. No medicine is superior to this combination in reducing inflammatory action; and it frequently has a better effect by proving both emetic and purgative.

As a sudorific, warm bathing may be very useful, and is an agreeable remedy in the inflammatory stage of Phthisis. As the warm bath is useful in relaxing the surface of the body generally; in a similar manner inhaling warm air, by means of Mudge's apparatus, relaxes the inflamed membrane of the bronchiæ, and acts as a fomentation there, with the same good effect as is produced by warmth and moisture upon any other inflamed surface of the body. This remedy gives great relief in the cough and hoarseness so distressing in Phthisis Pulmonalis.

With the same view of counteracting inflammation, cathartics may be prescribed. As in other febrile diseases, so in Phthisis, the bowels are frequently torpid, and require the frequent use of aperient medicines. Saline and mercurial cathartics, possessing the greatest

power in diminishing excitement, are perhaps the most proper in this disease. But as it is an object not to induce too much debility, the use of drastic purgatives should be avoided as much as possible, and be confined to the earliest periods of the disease. During its advanced stage, the bowels should be kept open by mild laxatives and enemata, which tend least to debilitate the patient.

Blisters, Setons and Issues relieve the inflammation of the lungs, and produce a new determination to the surface with the happiest effects. Most writers agree in recommending repeated blisters to the chest, as an useful remedy, and with reason. But it is to be regretted that they have been suffered to usurp the place of a more powerful remedy of the same class, viz. Issues. If we may judge from the effect of ulcers and fistulæ, which palliate all the symptoms of confirmed Phthisis, while they continue, but whose healing restores the disease, it would appear that the establishment of similar drains, in the form of issues, ought to have a good effect. In caries of the spine, and disease of the hip joint, where the inflammation in the cellular structure of the bones seems to be very analagous to that in the cells of the lungs, issues are used with the greatest benefit. In these cases, they are uniformly preferred to repeated blistering, and experience has sanctioned the preference. Issues are preferable to blisters by their constant and uniform action, whereas the latter remedy has its effect continually interrupted by healing up and requiring renewal.

In general, blisters appear to be more useful in acute diseases, which may soon be subdued : but in Phthisis Pulmonalis, which continues so long, and whose progress is so slow, issues appear to be the better remedy. Dr. Mudge was so well convinced of their efficacy, that he assures us, he cured himself of an Incipient Consumption, by a large issue between the shoulders. Beddoes also recommends them, and relates several cases, in which they were used with the best effect. But if this remedy be tried, it should not be done timidly, and with the fear of giving pain ; when used at all, issues should be large and effectual, not only sufficient to contain a single pea, but at least a dozen. This is not the only remedy which has fallen into disrepute by a trifling and inefficient mode of employing it. But as blisters are preferred by many of the most judicious practitioners, their use may easily and with advantage be combined with that of issues. While a large issue is kept open between the shoulders, successive blisters may be applied to the chest. Many patients, perhaps, would not submit to so severe a mode of treatment ; but it is only by such active and efficient practice, that we can hope to cure this formidable malady.

It is only in the first stage of Consumption that much benefit is to be expected from this class of remedies, or at all events, before the patient is much debilitated. In its latest periods, they would tend rather to add to the debility already induced by the disease. At

any time, however, when the patient is not too much reduced, they may be prescribed with advantage.

Mercury, given until it produce salivation has frequently cured Phthisis Pulmonalis. It is used with greatest advantage in its first stage, but after the inflammatory action has been in some measure reduced, by means of blood-letting, and the other remedies proposed. Before these evacuations have been premised, it would tend rather to increase the inflammation; while in the advanced stage it would add too much to the debility of the patient. It generally succeeds only when it affects the mouth, and therefore to secure this effect and prevent its running off by the bowels, it should be combined with opium. But the best form of exhibiting mercury, is one much in use with my worthy friend and preceptor, Dr. Borrowe. Calomel, combined with small doses of antimonial powder, given morning and evening, until it affect the mouth, is the form proposed. In this way it may be given at an earlier period of the disease, than would otherwise be proper, by the constant determination to the skin kept up by the antimonial powder, obviating the tendency which mercury has to increase inflammatory action. At the same time it serves to keep the bowels open, and makes almost every other medicine unnecessary. On the other hand, if it acts too much on the bowels, it may be usefully combined with opium, which adds to its diaphoretic effect. The good effects of this mode of exhibiting mercury, is strikingly illustrated by the result of the following case, which occurred in

the practice of Dr. Borrowe within a few months past.

“ Miss ——, aged about 14 years, had been for six months past, afflicted with some cough, pain in the chest and difficulty of breathing. She was affected with loss of appetite, emaciation and profuse sweats at night. Her pulses were frequent; she had the peculiar pearl-like appearance of the adnata; frequent attacks of diarrhœa, and an expectoration much resembling pus. She was attacked with chills about the middle of the day, followed by considerable excitement, aversion to motion and drowsiness; succeeded by great prostration of strength; palpitation and hurried breathing on ascending a height or engaging in any considerable bodily exertion; attended with a livid appearance of the lips, evidencing a difficulty in the passage of blood through the lungs.

It was determined to put her upon the use of Calomel and Pulv: Jacob: which were given in small doses every night and morning; a blistering plaister was also applied to the chest, and kept in an irritable state for a considerable length of time. The diet was ordered to be soft, mild and nutritious. The mercury and antimonial medicine were occasionally omitted when they acted more on the bowels than the skin, or occasional anodynes were administered to restrain their action on the alimentary canal.

Some weeks elapsed before the mercury produced any effect upon the salivary glands, which was one of the ob-

jects aimed at. As soon as the mouth became sensibly affected, the symptoms were generally mitigated. A temporary suspension of the use of the remedies became necessary, in consequence of the considerable effect produced by the mercury. When the soreness of the mouth abated, small and less frequent doses of the calomel were given so as to keep up a tenderness of the gums several weeks longer. The affection of the chest became now entirely relieved, and it was thought advisable to suspend the use of the mercurial treatment, the effects of which were suffered to pass off, rather than be relieved or cured.

From this time no medicines were employed, except a small quantity of a weak infusion of colombo as a tonic. Long before the patient's mouth enabled her to eat, her appetite became craving. She was indulged in eating moderately of such food as she had a particular desire for; and she soon was enabled to take exercise without inconvenience. She did not now complain of any pain in the chest, the cough left her, the bowels became regular, there was no recurrence of night sweats, she began to gain flesh, the countenance assumed the healthy aspect, and the peevishness under which she had long laboured was effectually cured. She now slept well, and gradually returning to her former habits, is at the end of five months after discontinuing her remedies, in perfect health."

Digitalis is a remedy in Phthisis, which has excited much acrimonious controversy among practitioners of

medicine. As always happens in these contests, it has been praised too highly by one party, and condemned too severely by the other. When first introduced, it seemed to promise the complete eradication of Consumption; and it almost appeared that digitalis was as specific in the cure of that disease, as mercury, in syphilis. Dr. Magennis of the Royal Navy Hospital at Plymouth, England, published a paper, containing an account of seventy-two cases of incipient or confirmed Consumption, in seamen and marines, treated with digitalis. Of these, twenty-five with ulcerated lungs recovered; and fifteen from the stage previous to ulceration. Thirteen of the seventy-two in an early stage of ulceration were discharged, greatly relieved; and nine in the previous stage. In ten cases, the medicine failed; but in some of these it gave considerable relief. Beddoes assures us, that three cases out of five of tubercular consumption, in his practice, had recovered under the use of digitalis. Kinglake insists, that one in three cases of the tubercular stage of Consumption, may be cured by this medicine. Dr. Currie informs us, that digitalis may be used with safety and success in cases where the lancet can no longer be employed. These results in the practice of men, distinguished in their profession, although they may be somewhat warped by prejudice, are extremely flattering, and prove at least that the medicine has some power. But like all other new remedies, digitalis has been rated too highly by those who first used it. Delighted that they had discovered a medicine, which, in some cases would cure a

disease, which they had been accustomed to look upon as totally incurable, these physicians have suffered themselves to attend too exclusively to its successful results, and to neglect cases in which it has failed. Other practitioners, on reading their exaggerated statements, have tried the remedy, but finding themselves frequently disappointed, have gone into the other extreme and condemned it entirely. Their representations are to be admitted with as much qualification as those of their opponents, and the judicious physician will not suffer himself to be exclusively guided by either. That in certain cases, digitalis will cure Consumption, cannot be doubted; but we have also to regret, that it very frequently fails. It was prescribed in the New-York Hospital, under the direction of Dr. Hamersley, during the last winter, in six cases which I have witnessed, of evident and well marked Phthisis. Of these, two patients were perfectly cured; one has nearly recovered, and is only retained in the Hospital for a slight cough, which is yielding; a fourth was discharged at his own request, but evidently relieved; the fifth commenced the use of digitalis, at a very advanced period of the disease, and soon died; in the last it failed entirely, and appeared rather to have done injury.

Having ascertained that digitalis does sometimes succeed in curing Phthisis Pulmonalis, it remains to discover what are the cases in which we may exhibit it with success. For this purpose it would be desirable to ascertain the *modus operandi* of the medicine. Here writers have differ-

ed as widely as in their account of its success in practice. One author determines it to act by diminishing the force and frequency of the circulation, and reducing inflammatory action; a second attributes its salutary effect to its operation on the kidneys; while a third believes it no longer to be of advantage, when it increases the discharge by urine, excites nausea, vomiting, purging or any undue excitement, but attributes its beneficial effects to its stimulant efficiency, in invigorating the arterial and muscular energy of the system: and a fourth insists that by promoting the action of the absorbents it cures Consumption. These conflicting and opposite opinions constrain us to admit, that farther enquiry is necessary, before we can rest satisfied as to the mode in which digitalis acts. It must be confessed that this medicine is extremely uncertain in its operation. Its most evident effect, and that most insisted on, of reducing the frequency of the pulse, is by no means certain; and indeed, it is the opinion of Dr. Beddoes, that the force and strength of the pulse are increased by it. In the N. Y. Hospital I have witnessed frequent cases in which its continued exhibition produced no effect in reducing either the force or frequency of the pulse; and in some instances no effect at all seemed to be produced by it. A case occurred in that institution in October last, in which a patient, by his own carelessness took six drachms of Tinct: Digitalis with no evident injury. In examining the effect of this medicine on the pulse, it is necessary to recollect the remark of Beddoes, that it is very different in the recumbent and erect posture;

the pulse frequently being found to be reduced in frequency and irregular in the former, but recovering its frequency and regularity in the latter situation. From the same author we learn, that if this remedy do not produce any good effect within three weeks, we can expect no advantage from it at all. It is generally admitted that digitalis will succeed only in the first stage of Phthisis Pulmonalis; in the last or ulcerated stage of that malady, it will not save our patient, but we are apprehensive, will rather hasten his dissolution. As it is acknowledged to be an uncertain medicine, we should not place our whole dependence upon it, nor suffer it to take the place of blood-letting and the rest of the antiphlogistic treatment before recommended: it should be used rather as an auxiliary than a principal remedy. From its uncertainty of operation it requires a cautious exhibition. The dose for an adult is from ten to fifteen drops of the saturated tincture, three times a day, and gradually increased until some effect is produced.

The use of factitious airs in Consumption is now very much abandoned. No essential benefit has ultimately appeared to be derived from them; although in the first instance, they produced some apparently good effect.

Of much more advantage is a sea-voyage and a mild climate. The benefit evidently derived from sea-voyages has been attributed to various causes. The nausea and vomiting from sea-sickness, the uniform motion and gentle regular exercise produced by sailing, and the uniformity

and mildness of the atmosphere of the ocean, so evident at a distance from the land, probably all combine in producing these happy results. We can hardly suppose, however, with Dr. Mudge, that the exhalations from the tar and pitch about the ship, taken into the lungs in respiration, have any agency in the effect produced. But whatever be the cause, it is not at all unfrequent for consumptive patients to experience immediate relief after having been a few days at sea. A sea-voyage to produce permanent benefit, should be long continued, and what is of still more importance, terminate in a mild climate. Every winter, instances occur in this city, of consumptive patients being restored to health by a voyage to the south of France, or some other country of similar temperature. The climate most grateful to these patients is one whose temperature is uniform, not subject to any sudden variations, and where the atmosphere is dry and pure. The island of Madeira possesses all these requisites. The part of it best adapted to the purpose in question is thus described by Dr. Adams, a physician of that island, in a letter to his friend in London:—

“ The valley of Funchall is defended by immense hills from every wind but the south, where it is open to the sea-breeze; this preserves a temperature so even, as is unknown in any other part of the world. Our winters may be compared to your summers in every thing but the length of days, and those sudden changes from heat to cold, to which you are subject. The thermome-

- with a
good air
climate

ter with us is often steady within doors, or varies scarcely a degree for weeks together. During winter its whole range is from 58 to 65; and in summer, from 70 to 75, rarely amounting to 80; the heat being always tempered by a breeze in proportion to the force of the sun. The dryness of our atmosphere is not less remarkable."

If this description be correct, Madeira has a climate possessing every requisite to make it most favourable to phthisical patients. The southern parts of the United States are frequently resorted to, also, by the consumptive with great benefit. I have had the satisfaction of seeing a young friend return from Charleston, a short time since, perfectly restored to health, who, during the last autumn, was attacked with repeated hæmoptysis and other symptoms of Incipient Phthisis.

It is to be regretted, that change of climate, a remedy of so much advantage in the early stage of Consumption, should so often be postponed, until no possibility of recovery remains. It is too often the fate of such patients, to leave their homes in quest of health, merely to find a foreign grave; resorting to that remedy which should have been first, as the last effort of despair. To this cause alone, may we attribute its frequent inefficiency, and unfortunately the same cause has contributed too much to bring the remedy into disrepute.

Where from any circumstances, change of climate is impracticable, it may to some extent be imitated, by confining the patient to apartments whose temperature is kept constant and uniform. This has been tried and with some

success; and is probably, the remedy of the same class, next in power, but much inferior to a warm climate. Beddoes made use of it in several cases with relief to his patients, but it has not yet been sufficiently tested to establish its character as a remedy in Phthisis Pulmonalis.

Besides the use of the remedies which have been enumerated, with the view of effecting a radical cure of this disease, there are some symptoms occurring in its first stage, which require immediate relief. Hæmoptysis sometimes comes on in such a manner as to be very alarming to the patient. Blood-letting in large quantities, and repeated in proportion to the strength and habit of the patient and violence of the symptoms, is then absolutely necessary. Unless the plethora, which is oppressing the system, and exciting the hæmorrhage from the lungs, be relieved by general blood-letting, blood will not cease to pour out from that viscus. At the same time the free exhibition of saline cathartics, a blister to the chest, a rigidly abstemious diet and a strict adherence to the antiphlogistic regimen must accompany this treatment. Peruvian Bark, Chalybeates and Elixir of Vitriol so often used, in active hæmorrhage during the inflammatory stage of Consumption cannot but be injurious. They increase the force of the circulation and consequently the disposition to hæmorrhage. In the same symptom arising from an opposite cause, they may be prescribed with advantage. Common salt, administered dry in the manner directed by Dr. Rush,

has been found by experience to be very useful in abating hæmorrhage from either cause; but it should not be depended on alone, nor suffered to take the place of the treatment just detailed.

If possible, we should anticipate the occurrence of hæmoptysis with our remedies, and thus prevent the formation of a habit of spitting blood, which when once established, is difficult to destroy. The usual precursors of this symptom are, a saltish taste in the mouth, a sense of irritation at the upper part of the trachea, and some oppression and difficulty of breathing. At this time, before the hæmorrhage has commenced, blood-letting and the rest of the remedies mentioned above should be actively exhibited. "*Venienti occurrere morbo.*"

A distressing cough at this period also requires the attention of the physician. From its occurrence more particularly at night, it disturbs the rest and adds much to the sufferings of the patient. It should be alleviated by Opiates, accompanied with any of the mild demulcent remedies, generally denominated Pectorals. Mudge's Apparatus for inhaling the steam of warm water, may also be used with relief, especially on going to bed.

When all inflammation is gone and the second stage of Consumption has decidedly formed, a different mode of treatment becomes necessary. Little indeed is now to be hoped for from any treatment, as a radical cure; but our patient is not to be abandoned; if he cannot be cured, his sufferings may be materially mitigated, and he may be directed to avoid such things as may increase his malady.

Nor should we entirely despair of performing a radical cure; for solitary cases are related by many authors of consumptive patients being cured in every stage of the disease. Many of these cases, perhaps, have been mistaken for Phthisis Pulmonalis; but of some of them we cannot doubt. The authority from which they come is too high to permit us to hesitate.

The remedies last mentioned in the treatment of the first stage of Consumption may yet be proper, and although with not so great a prospect of success, should still be tried. These are a sea-voyage, change of climate, and confinement to apartments whose temperature is regulated. But all the debilitating remedies before recommended, are now to be avoided. The lancet in general is improper, although in some few instances, the occurrence of acute inflammation at this period, still requires its cautious use. Drastic Cathartics should not be used; the bowels if torpid must be kept open by gentle laxatives and Enemata. Antimonial and other debilitating Emetics should not now be exhibited, but the Vitriol Emetics may still be prescribed with advantage. The Sulphate of Zinc given in such doses as to excite occasional vomiting, is frequently very useful, and especially where much irritation is present. It was introduced and strongly recommended by Dr. Mosely in his Treatise on Tropical Diseases &c. His Vitriolic solution^h is certainly an useful remedy in relieving dyspnœa

^h ℞. Vitriol : alb : ʒ ij
 Alum : rup : ʒ j
 Coccinel : pulv : gr iij
 Aq : fervent : ꝥj. Misc in mortareo marmoreo. Solutio a sæculantia vel residendo expurgetur, vel per chartam bibulam filtretur. Dos. ʒss.—

and promoting expectoration. Instead of debilitating as antimonials do, he assures us, that its emetic effects are instantaneous, not harassing the patient, but always leaving the stomach strongly invigorated. Mr. Warburton, the present House Physician of the New-York Hospital, has assured me, that he has frequently prescribed it in that Institution with evident benefit. With similar intentions, Dr. Senter, in the Medical and Chirurgical Review, published in 1795, recommends the sulphate of copper.

At this time blisters will be preferable to either setons or issues, as they relieve the local symptoms without producing a constant debilitating discharge. Indeed they should be used in such a manner, as to produce as little discharge as possible. With this view, they should not be kept open by stimulating dressings, but be healed up, and occasionally renewed. With the same intention, stimulating plaisters may be applied to the chest with advantage, and in general are preferable to blisters.

To support the patient's strength, as was proposed in the second indication, tonics are necessary. Of these some of the simple bitters are preferable, as columbo, gentian, boneset, chamomile, &c. But we should be careful not to exhibit them during the paroxysms of hectic fever, but during its intervals. Peruvian bark has not been found admissible. It produces a sense of stricture and oppression of breathing, adds to the cough, makes the pulse quick and hard, and hæmoptysis is not unfrequently the consequence of its exhibition. Dr.

Fothergill dwells particularly on the abuse of this medicine in Consumption.

As stimulating and bitter medicines, the Polygala Seneka and Aristolochia Serpentaria have been recommended in this stage of Phthisis Pulmonalis.

The stimulating balsams and gums are also proper in this stage. They have been highly recommended by Morton; and myrrh in particular is prescribed with great confidence by Simmons. They are objected to by Fothergill, on the ground, that by their stimulating properties, they increase the inflammation of the lungs. His objection appears well founded, while symptoms of acute inflammation still exist; but after they have subsided, the cough and other distressing symptoms of the last stage of Phthisis, may be much alleviated by these medicines. By their stimulating effects upon the whole system, also, they may be useful at a time when the patient is sinking under great debility.

As stimulating applications are frequently found necessary and useful to indolent ulcers on the surface of the body, it naturally occurred that similar applications might be made with advantage to ulcers of the lungs. With this view, the steam of tar water, and the vapour of sulphuric æther inhaled in respiration, have been used in the treatment of Consumption.ⁱ With the same re-

ⁱ Dr. Borrowe formerly had a patient labouring under Consumption, a manufacturer of tin ware, who was uniformly relieved of his phthisical symptoms when engaged in soldering tin, a process in which a great deal of resin is used, and constantly inhaled in respiration.

strictions as are necessary with the stimulating gums and balsams, these remedies may be beneficial. It is not probable, however, that any permanent relief can be derived from them ; they can only mitigate symptoms.

To check the profuse sweats, which occur at this period, and add materially to the debility of the patient, the elixir of vitriol is an useful medicine. As a general tonic it acts beneficially also upon the whole system.

With the view of quietting the cough and procuring rest at night, opiates are necessary ; and fortunate are we that we have in our possession, a remedy, which although it will not permanently cure the disease, palliates the symptoms, at least for a time ; and makes more smooth the path to death. It is true that opium produces some ill effects. It debilitates the stomach, and injures the appetite ; but when the symptoms are urgent, it cannot for these reasons be dispensed with. By lulling pain, and giving rest to the watchful patient, it more than counterbalances these disadvantages. The *humulus lupulus* or common hops, does not possess the objectionable properties of opium, but with its anodyne combines some tonic powers, and promises to be an excellent substitute for that medicine.

The large and frequent use of syrups in the form of expectorant mixtures and linctuses, to alleviate cough, is very injurious. They cloy the appetite, destroy the tone of the stomach, and prevent the taking of nutritious aliment, which is now so necessary ; and frequently without producing any material relief of the symptom for which they are prescribed.

The use of opiates is necessary also, to check the profuse diarrhœas, which now alternate with costiveness, and reduce the already debilitated patient. With the same view, the chalk mixture may be used with advantage, and the astringent medicines, Kino and Catechu, with others of the same class.

It is not unfrequent for hæmoptysis to occur at this period, as well as in the earlier stages of Consumption. Sometimes it is the effect of some temporary excitement, and may be relieved by the loss of a few ounces of blood. But frequently this evacuation cannot be borne; and the hæmorrhage proceeds rather from debility in the vessels of the lungs, than any increased force of the circulation. We must then trust to astringents—muriate of soda, sulphuric acid, and alum.

We come now to speak of the diet and regimen of patients labouring under Phthisis Pulmonalis; a subject no less important than the remedies to be exhibited. In the first stage, the diet should be perfectly simple, and such as will least tend to increase the inflammatory action of the system. For this purpose nothing is better than milk. So sensible have physicians, at all times, been of its propriety, that in many cases, they have trusted the cure entirely to a milk diet. It is highly spoken of by almost every author who has written on this subject, and with reason. It is light, easily digested, and does not produce any excitement. Many have preferred Asses' to Cows' milk, but it does not appear that there is any material difference, which should influence our choice. The

former is thinner and less nutritious, and perhaps, to very delicate stomachs, may be more acceptable; but in general, the latter is as useful. Milk, however, is very offensive to some stomachs, and not so easily digested as other food; in such cases it must necessarily be prohibited.

As a general rule, with regard to diet, in this stage, animal food is improper, and the patient should be confined to the use of vegetables. Fresh sub-acid fruits are proper; and, indeed, of so much importance have they been considered, that Hoffman mentions a case of confirmed phthisis, cured by confining the patient to the use of fruits, and particularly strawberries. Mucilaginous and diluent drinks, as those formed from barley, sago and flaxseed are also useful. Among these may be classed, the *Lichen Islandicus*, which has gained with some the reputation of curing Consumption. Weak is the foundation for hope of those who depend on it. As an article of diet, from its mucilaginous property, it is useful; and in the last stage, from its possessing slightly better and tonic virtues, it is also proper; but as a remedy for phthisis it is altogether inert. Nor are its tonic powers sufficiently great, to render it injurious in the early stage of the disease.

The dress of the patient should also be regulated by the Physician. He should be clothed in flannel, and this frequently changed. A constant determination is thus kept up to the surface, and to some extent, diverted from the chest. At the same time, all exposure to cold,

moisture, or sudden alternations of temperature must be studiously avoided. As in many cases, they lay the foundation for consumption, so after it has commenced, their repetition aggravates it.

Mental distress and consequent despondence, impedes the cure of those who otherwise might recover, and should be obviated as much as possible. Happily, patients labouring under Phthisis, generally with difficulty, resign hopes of recovery, and despondence from that source does not often depress them. But mental anxiety, produced by other causes, is very injurious. It should be relieved, as much as possible, by pleasant amusements, a journey, a sea-voyage or any other method most suited to the particular circumstances of the patient.

In the second stage of Consumption, the diet of the patient must be altered, as well as the medical treatment. The most nutritious articles of food are then to be chosen, and such as are at the same time the most easily digested. It is well ascertained that the older meats, as beef and mutton, possess these properties in a higher degree than veal or lamb; and generally, the brown more than white meats. With the same view, wild fowl and game generally, form nutritious articles of diet, proper for consumptive patients. Eggs combine a large quantity of nourishment in a small compass, and may be freely used. They should be taken either quite raw, or boiled a very few minutes. When boiled hard, they form one of the most indigestible and offensive substances, to the delicate stomach, that are used in diet. The various culinary preparations, of which eggs form a principal part, are for the same rea-

sons proper. Jellies also contain a great quantity of nutritious matter, and are very acceptable to patients, who, as in Consumption, have little appetite. Oysters and some other of the testacea, are also extremely nutritious. Isinglass boiled in milk is frequently in use, and with advantage, in these cases. Of the vegetable nourishments, those should be chosen which are most nutritious and abounding in mucilage, as rice, sago, arrowroot and Tapioca. Chocolate, when prepared in such a manner as to be free from oily matter, is a very pleasant article of diet.

The drinks of the patient should also be stimulating and nutritious. Malt liquors combine both these properties with some tonic virtues, which they obtain from the bitter of the hops infused in them, and therefore constitute the best drink for consumptive patients. Wine, also, may be used moderately with advantage, but requires some caution; and should be immediately abandoned, if any undue excitement be produced by it.

In this, as in every other stage of Consumption, while the patient has sufficient strength, exercise is necessary to the recovery of health. Of so much importance is exercise, that in many cases, it has alone cured this disease. Dr. Rush relates many such cases, and particularly, three instances of persons in confirmed consumptions, perfectly cured by the hardships of a military life. Of so much consequence was it in the eyes of Sydenham, that he pronounced riding on horseback, as certain a cure for consumptions, as bark for an intermittent fever. Indeed, all writers on this disease join in recommending it, not only

as a part of the regimen, but as a principal remedy in the treatment. The mode of exercise to be chosen, should depend entirely on the situation of the patient, at the time. While much pain and soreness subsist, denoting the presence of active inflammation, the most gentle exercise only should be used: at that time riding in a carriage or on horseback, would be as improper as for a patient labouring under pleurisy. The swing, so highly recommended by Dr. Carmichael Smyth, is the least fatiguing, and most gentle mode that can be adopted. It may be serviceable, too, when the patient is too much debilitated to bear other more fatiguing exercise. But I would, by no means, adopt the opinion of Carmichael Smyth, that the swing, in itself, and unassisted by other remedies, will cure Consumption. Experience has proved the contrary; and has taught us that it is only useful as an article of regimen, while the patient is under the influence of other more powerful remedies. When there is sufficient strength to bear it, and not too much excitement, riding in an easy carriage is the next mode of gestation which may be used. But when the patient is enabled to ride on horseback, we have more to expect from it, than any other species of exercise. To attain the greatest benefit from it, it should be made use of regularly and constantly; not during the cold air of early morning, nor the dews of the evening, but rather during the day, after the sun exerts some influence. A long journey on horseback affords the most useful method of obtaining all the advantages that can be derived from exercise. It is then made constant and regular; and the amusement af-

forded by travelling serves to divert the patient's mind from his own feelings, and adds to its beneficial effects.

Secondary Phthisis Pulmonalis remains yet to be treated of. Under this order, should be included every form of Consumption, in which the system has become debilitated by any cause, and the lungs in consequence become affected. I would exclude from it that form of the disease occurring after measles, scarlatina, and some other eruptive diseases, which I would consider as primary Phthisis Pulmonalis; because, in those cases, the lungs do not become affected merely in consequence of debility, but these diseases seem rather to act as exciting causes, in constitutions already predisposed to Consumption; while in secondary Phthisis, the affection of the lungs is only one symptom of the general disease, which is wasting the body. Nor would the treatment, which will be advocated in the latter form, be proper in the cases alluded to. They require that, which should be used in the first species of Phthisis, and which has already been detailed. The reason, why the lungs become affected in consequence of debility induced by particular causes, I would not attempt to explain. It is one of those laws of the constitution, not better understood, than why particular parts are successively affected in consequence of syphilis, or that the breasts and lower extremities are more liable to disease than other parts, except the uterus, in females after parturition. Many laws of this kind exist in the human constitution, of whose effects, we are every day made sensible, but of the cause of which we are totally ignorant.

One of the most frequent causes of Secondary Phthisis, is Chlorosis, that disease which occurs in young females, in consequence of Retention of the menses. The constitution not having sufficient vigour to produce this evacuation at the proper period, if any predisposition to Phthisis exist, a determination takes place to the lungs, producing Phthisical disease. This case is not analogous to Consumption produced by Suppression of the menses, after they have been once established; for in that instance the suppression is not generally induced by debility, but by cold, or some other cause, not acting merely by weakening the patient; and it produces active inflammation of the lungs. But in the case before us, the affection of the lungs is merely a symptom of the want of vigour in the constitution, which shews itself in retention of the menses. Accordingly, in the treatment of this disease, our attention must not be directed primarily to the affection of the lungs, but to the state of the system, the cause of that affection.

Profuse evacuations, of any kind, may be the cause of Secondary Phthisis. Hæmorrhages from the Nose, Lungs, Stomach, Kidneys and wounds are all mentioned by Morton, as having induced Pulmonary disease. Mr Hey, in his work on Surgery, observes, that he has seen a great many cases of pulmonary Consumption, the consequence of debility, induced by violent hæmorrhages, and in persons who had no apparent tendency to Consumption. In the same manner, loss of blood from Hæmorrhoids and in Menorrhagia, may act as causes. Debilitating evacuations, by means of Diarrhœa, Diabetes, Salivation, and Sweating,

have had the same effect. But the most frequent causes of this class are, immoderate discharges by fluor albus, and too long suckling by delicate woman of robust children. They are particularly mentioned by Morton and Fothergill, and have been adverted to by most authors, who have written since.

Chronic Catarrh, terminating in Phthisis, may be ranked also in this class. The profuse and long continued discharge from the membrane lining the trachea and bronchiæ, is the debilitating agent in that case.

Long continued Fevers, and particularly Intermittent fevers, not unfrequently leave behind them, a state of debility, sufficient to induce Consumption.

In the New-York Hospital, frequent instances occur of Consumption induced by intemperance in the use of ardent spirits. This habit destroys the tone of the stomach, which becomes primarily affected, and in consequence the whole system becomes debilitated, terminating in disease of the Lungs.

Secondary Consumption has also been induced by some other preceeding diseases, such as Scurvy and Syphilis, and requires the attention of the Physician, to the primary disease rather than to the affection of the Lungs.

In the treatment of Pulmonary Consumption, arising from any of these or analogous causes, our attention is first called to the removal of the primary source of the disease. If it be Chlorosis, remedies, calculated to cure that malady, must be prescribed. If profuse evacuations are the cause, all the means in our power, must be employed in restraining

those evacuations. If the disease has been induced by the long continued suckling of a vigorous child, by a delicate mother, another nurse must be provided, or the child must be weaned. If Scurvy or Syphilis have produced it, the proper remedies for those disorders must be employed.

Our next object is to remove the debility, the cause of the pulmonary symptoms. For this purpose, Tonics are indicated, and at their head stands the Peruvian Bark. In the other species of Phthisis, this medicine has been much abused, but in the present one, its use is sanctioned by experience. In the cases proceeding from Leucorrhœa, and long suckling, it is highly recommended by Dr Fothergill; but he cautions us against persevering in its use, longer than while it is doing good; and remarks, that if the breathing become more oppressed, the cough dry, the pulse more quick and hard, and especially, if slight transitory pains or stitches about the thorax, are more frequently complained of, a perseverance in the use of the bark will increase the disease. If, in consequence of this increase of symptoms, we are obliged to desist in the use of the Bark, other Tonics must be substituted. The combination of bitter and tonic medicines in the Infus: Amar: of the dispensatories may be then usefully prescribed. Columbo, which is sometimes an ingredient in that formula, is particularly recommended by Dr. Thomas Percival, as not possessing any of the injurious properties of bark.

The Elixir of Vitriol is also an excellent tonic, and may be usefully given at the same time with the remedies just

proposed. But it requires to be administered with the same cautious hand as the bark, and to be discontinued, if the symptoms appear to be at all aggravated by its use. In general, no ill effects arise from it, but if the determination to the chest be so great, as to produce much inflammatory action, it may do injury. Independent of its tonic powers, it will be serviceable in checking any disposition, which may exist, to profuse sweating.

Iron, in its various officinal preparations, is also a good remedy, in this form of phthisis. Although, highly dangerous in the primary disease, there is now little danger of increasing the inflammation, which in that form, made it improper. Mineral chalybeate waters, will in this instance, be useful, not only by the journey to them, and the amusement derived at watering places, but may be drank with advantage by the patient.

In addition to these remedies, the diet and regimen should be such as is most invigorating to the constitution. A nutritious diet and the moderate use of wine will be proper; and country air and exercise with the same rules as were mentioned in the treatment of primary phthisis, are very important circumstances in the cure of the secondary form. A long journey, a sea-voyage and change of climate are also equally proper.

The prominent feature and primary object of this essay has been, to establish the distinction between primary

and secondary Phthisis Pulmonalis. Although, perhaps, the minute parts of the arrangement may not have been distributed, in every instance, with perfect accuracy, I feel confident that the general plan is correct. Farther observation and experience will probably suggest a more accurate disposition of the varieties of Phthisis, under the two orders which I have proposed.

Probably from the want of the distinction between primary and secondary Phthisis, may be explained the various and contradictory practice, proposed by physicians of deserved eminence. A more frequent opportunity of observing one or the other form of the disease, has determined with each, his mode of treatment: and hence in diseases bearing the same name, we may see blood-letting and a rigid antiphlogistic regimen adopted by one party, and bark, iron, and a nutritious diet by another. Any error which may arise from these contradictions, may be corrected by the distinction, which has been proposed.

It has also been my object, to call the attention of the practitioner, to the earliest symptoms and first dawnings of Consumption. Were they not so much neglected by the physician, as well as the patient, our bills of mortality would not continue to present so frightful a picture of the ravages of this disease; while, on the other hand, a prompt attention to these incipient symptoms, and the interference of an active practice, would afford a reasonable prospect of saving many from Consumption, who are now its victims.

ERRATA.

Page 10. Note, for *d'après*, read *D après*.

22, line 25, for *which like the inert physician*, read *which the inert physician*.

25, line 13, for *dysentary*, read *dysentery*.

