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Contributors

Bayle, Gaspard Laurent, 1774-1816.
Barrow, William
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Publication/Creation

Liverpool : Longman, printed by G.F. Harris's widow and Bros., 1815.

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RESEARCHES

ON

Pulmonary Phthisis,

FROM THE FRENCH

OF

G. L. Bayle, D. M. P.

BY

WILLIAM BARROW, M. D.

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AND WORKHOUSE, LIVERPOOL.

Liverpool:

PRINTED BY G. F. HARRIS'S WIDOW AND BROTHERS;
FOR LONGMAN, HURST, REES, ORME, AND BROWN, LONDON; AND
W. GRAPEL, LIVERPOOL.

1815.

PREFACE.

HAVING taken a particular interest for more than twenty years in the investigation and treatment of diseases of the lungs, and having often had to regret the obscure and very imperfect state of our pathological knowledge of this most important organ, I was peculiarly gratified the last year, in having the following Treatise recommended to me in Paris, amongst some others which the investigating spirit of the times has produced, by Dr. Royer Collier. The more I examined this work, the more I became convinced of its utility. It appears to me to fill an immense chasm in pathological anatomy; and to contain a number of very valuable facts, which tend in a direct manner to improve as well the knowledge and treatment of Phthisis Pulmonalis, as of other disorders of the lungs. That this part of pathology should have been more successfully prosecuted, and the subject in consequence be better understood in Paris

than in England, occasioned me much astonishment; nor could I forbear to lament that in our own country, so celebrated for its sound philosophy, and the encouragement generally given to useful pursuits, the most interesting of all knowledge, viz. that of the cause, the nature, and the cure of human diseases, should, in many instances, have been hitherto unattainable. That this assertion is not unfounded, I appeal to the profession at large, not doubting that all have experienced the difficulties and impediments by which anatomical researches are incessantly interrupted. It is impossible for me to do too much honour to the disinterested and truly philanthropic zeal of my professional brethren, or to express the admiration with which I have always regarded their readiness and alacrity to ascertain by dissection the source of diseases. The fault is not with them: it is with the public at large; it is with those who suffer superstitious prejudices, or an otherwise amiable sensibility and misplaced tenderness, to supplant the dictates of humanity and true religion: it is with those, who with apathy and cruel indifference to the welfare of society, start the most frivolous objections to the opening of bodies, and thus sacrifice the interests of the

living to an affected or unavailing concern for the dead. In making this remark, I beg not to be misunderstood. I am not insensible to the social impulses of our nature, nor would I with indifference consign the body of the humblest individual to anatomical rudeness. But when an accurate knowledge of a disease cannot otherwise be obtained, or in cases where the pathology is not understood, and the mode of cure of course is imperfect, I conceive it the duty of a physician to avail himself of every opportunity of adding to the stock of professional knowledge; and not to suffer indolence, fatigue, or the disgusting nature of the pursuit, to deprive him of information which may be the means of saving life, stopping the progress of disease, or perhaps of relieving from excruciating torture the very next person to whom he may be called. And if such is the duty of the practitioner, how imperative is the call on the surviving friends to aid and facilitate this investigation. Their own loss of a valued object, or an affectionate relative, should at least teach them sympathy for others. Nor is it less the duty of persons in authority to exert themselves to the utmost in promoting pathological researches: in proof of this, I beg leave to re-

late the following strong, though not solitary fact. Some time ago a very alarming disease broke out amongst the children in the work-house. It was observed to commence in the most sudden manner. The little sufferers were seized with vertigo, without any previous indisposition, and instantly fell to the ground: a very languid state and stupor, from which it was difficult to rouse them, quickly followed. The first that was affected did not excite alarm in the apothecary then in attendance, and he ordered the usual means for clearing the bowels: the child, to his great astonishment, continued in a comatose state, and died in the afternoon of the same day. This circumstance being represented to the churchwardens, they interrogated him very closely, and though, in this instance, very little to blame, he was severely censured. In a day or two after, another child was seized in the same manner, of which I had immediate notice; and having already had a melancholy account of the formidable nature of the disease we had to contend with, I prescribed powerful antimonial emetics, to be repeated every ten minutes till they produced a copious effect. The little patient was then put into a warm bath, and afterwards wrapped in

blankets, to elicit a profuse perspiration, during which I directed the nurse to awake him every three or four hours, for the purpose of giving a couple of pills of calomel and antimonial powder, to be washed down with a mixture of infusion of sena and salts, and this course to be repeated as long as the coma lasted. This plan having succeeded, the child got well. More of the children, however, continued to be attacked each day, and being treated in the same manner, all, except one, recovered. This child, after shewing symptoms of amendment, relapsed two or three times, and died. I took the opportunity of examining the body very minutely, but could find nothing in the brain or stomach to throw any light on this singular disorder. In the heart alone could I discover any morbid change, and here were strong appearances of inflammation, particularly in the aortal valves of the left ventricle. Having obtained this proof of the nature of the disorder, I was enabled to proceed with confidence in place of the timidity and diffidence I felt previous to the dissection, and though more than 200 of the children were attacked, this dangerous disorder was not fatal in any other instance.

So important indeed do I consider morbid anatomy, and so many are the obstacles to be overcome in prosecuting it, that I conceive it would contribute to the public good, were this matter regulated by authority; and were the power now vested in the coroner for judicial purposes only, so modified as to comprehend all cases which could be presumed to convey any useful information; as it is often of more real importance to be well informed of the nature of a murderous disease, than of the injury produced by an assassin. Correct bills of mortality might then be kept, and parish registers would present proper data to reason upon. Solitary facts are seldom of much real importance—it is by having the power of multiplying, contrasting, comparing, and combining them, that material progress can be made in any science. This practice of opening the dead being made general, and regulated by law, would in a few generations produce such a mass of information on all diseases, that even constitutional and hereditary complaints would be thoroughly investigated. Nor is it too much to expect that many disorders which are now the *opprobria medicorum*, would in time be so well understood, that they might be cured, or perhaps totally suppressed.

I should also conceive the legislature would render incalculable service, by requiring and impowering the faculty attached to every public hospital, to keep a clear and correct register of all the patients, so that the history of each disease, and the appearances on dissection, might in every case be faithfully recorded. What a fund of knowledge would be established by these respective means! and how interesting would the natural history of our species become. Nor would France long exult, as at present, in her claim to pre-eminence either in pathological or practical knowledge. The admirers of her imperial glory would cease to boast that one of her physicians has done more towards establishing an accurate knowledge of diseases of the lungs, than had been effected in other countries in 2000 years. The indefatigable industry and perseverance of M. Bayle, his unassuming modesty and candour, the perspicuity and genuine philosophy he has displayed, certainly entitle him to the esteem and respect of every country. I have not therefore hesitated to introduce him in an English dress; and have endeavoured to retain his nomenclature, being studious to avoid gallicisms only.

The plates No. 1 and 2, which I have annexed, are very accurate delineations of the appearance of the lungs, in both sides of the chest, as I took a transverse and longitudinal section from different sides. The dissection was made in the most correct manner by my friend, Dr. Vose. The subject had been ill nearly two years, but was not at the last degree of emaciation, and, as the attendants declared, died suddenly of suffocation. On opening the thorax, the lungs did not appear ulcerated externally; nor were the adhesions to the costal pleura extensive. On handling them, they felt as if full of granulations; and when cut into, they exhibited the appearance represented in plate No. 2, being replete with innumerable tubercular and granular cavities full of pus, varying in size from a few lines in diameter to that of the large tubercular excavation which occupied the root, or nearly one third of one lobe, as exhibited at A and B in plate No. 1: their various sizes marked in this plate by circular lines, are more completely displayed in the plate No. 2. The small dark coloured spots in both plates very correctly characterize the jet black granulations, seated as well in the very cen-

tre of many of the excavations as in the intermediate spaces. The blank part A of the large cavity had no pus upon it; the membrane there was red, smooth, vascular, highly inflamed, and quite bare. The other part B marked with waved lines, was covered with pus. Yet though the lungs were so full of suppurating tubercles, it does not appear that the patient expectorated any pus during the whole of his illness. In the three months immediately previous to his death, he had taken, by the direction of Mr. Dale, of this town, nearly, every day, one ounce or more of the subcarbonate of soda, not only without inconvenience, but with apparent benefit, as the strength increased during the use of it, and he was free from perspiration, diarrhœa, increased flow of urine, or hectic exacerbations: his voice was extremely hoarse; his cough was dry, but he did not complain of pain of the chest, and only of his sides when fatigued with coughing, and had no difficulty in breathing. I have introduced these plates, therefore, to illustrate the fact, that the lungs may be full of tubercles as well as granulations in a state of suppuration, without any pus being expectorated; and also to exhibit a specimen of two of the most fa-

miliar species of Phthisis Pulmonalis in a state of combination, viz. the tubercular and granular.—As it is impracticable, in the present state of the continent, to obtain from Paris such drawings as might enable me to illustrate all the species of this disorder, I am compelled to defer publishing the observations that have resulted from my own practice.

W. B.

Liverpool, April 5, 1815.

Researches on Pulmonary Phthisis.

AUTHOR'S MOTIVE FOR UNDERTAKING THE WORK, AND HIS DIVISION OF THE SUBJECT.

The most common disorders are, doubtless, those we are most interested in understanding well; but this intimate knowledge is particularly necessary in diseases which are in their nature so serious as to bring on premature death, or to change our happiest days into an uninterrupted series of painful disorders, doubtful convalescence, and relapses fraught with despair. The deep sense of this truth made me surmount the weariness of application the most monotonous, and the most persevering, and induced me to investigate for many years, in all its degrees, and all its forms, the longest and the most dangerous of

chronic diseases, Pulmonary Phthisis. I have observed it in persons of every age, of both sexes, and in every station; and I have opened the bodies of more than nine hundred persons who have sunk under this disorder, or exhibited unequivocal traces of it. I took down, with the most scrupulous accuracy, at the very moment, each observation which I made, and therefore I venture to publish some of the results I have obtained. Many of the facts I shall mention, have not entirely escaped others who have written on pulmonary Phthisis; but there are some which I shall pursue farther; some that have been only suspected I shall place beyond all doubt, and others which have been admitted almost universally, will be rendered at least doubtful. Many works published on this disease, include a luminous classification, with reference to the practice of medicine; and we there find many valuable observations, very good prescriptions, an enumeration, and very exact appreciation of most of the symptoms, and above all, a method of treatment, as complete as is possible, in the actual state of our knowledge. I shall enlarge but little on these different articles; but I shall develope at some length, what relates to

the pathology of this disease, and above all, the pathological anatomy.

I shall include what I have to say on pulmonary Phthisis in nine chapters, in which I shall exhibit—

1*st. The essential character of Phthisis.*

2*d. The alterations in the lung that characterize the diseases which have been confounded with Phthisis.*

3*d. The peculiar lesions of the lung, and the symptoms to be observed in each of the species of Phthisis.*

4*th. Some considerations relative to the whole of these species.*

5*th. The state of the lung in the different periods of Phthisis.*

6*th. The state of different organs in the bodies of phthisical subjects.*

7*th. The complications of Phthisis with*

different diseases, the effect of these complications, and the errors to which they have given rise.

8*th. The general treatment of Phthisis.*

9*th. Fifty-four histories of particular cases to illustrate the subject.*

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PULMONARY PHTHISIS.

CHAPTER I.

ESSENTIAL CHARACTER OF PULMONARY PHTHISIS.

BEFORE I proceed I propose to enter into some detail on the true definition of pulmonary Phthisis, which in future I shall generally content myself with calling Phthisis. I mention this to prevent all misunderstanding, different diseases affecting other organs having also been called Phthisis, when they bring on consumption.

The generic character of Phthisis may be drawn from the symptoms, or from the nature and seat of the disorder; that is to say, it may be either artificial or essential. But it appears to me indispensable to unite these two characters. The artificial, which is drawn from symptoms, is not applicable either to all degrees or to

all cases of Phthisis. The essential character, which expresses the nature and seat of the disorder, suits it in every degree and every form it can take, but would be insufficient to know it by during life. As it results from my researches, the essential character of Phthisis is this:—

Every injury of the lungs, which, left to itself, produces a progressive disorganization of them, and in the end ulceration and death, ought to be called pulmonary Phthisis.

Phthisis is commonly perceived by the aid of the following artificial character, which is taken from the *Nosographie Philosophique* of M. Pinel: *(see 3d edition, vol. iii. p. 588)* cough, difficulty of breathing, marasmus, hectic fever, and sometimes purulent expectoration.

It is evidently necessary to unite the two characters of which we have been speaking. In fact the cough, wasting, hectic fever, and purulent expectoration, are the effects of the disorganization of the lungs. These symptoms shew that this disorganization is advanced; but the disease is no less real in its commence-

ment, and the essential character is even then applicable. Besides, this disease may exist without presenting the union of symptoms named *Pathognomonic.* (*Obs.* 38, 39.) Authors have remarked that different persons have died of Phthisis, who have never shewn manifest signs of it; thus persons have been seen to die, who were in a state of hectic fever and marasmus, without cough or expectoration, where numberless tubercles were found in the lungs, and what is more inconceivable, large ulcers. The same injury of the lungs has been found in other persons, of whom some appear to have had only excessive diarrhœa, and to have died of inanition alone; whilst others have felt wandering pains, or nervous affections only: yet all, having the lungs deeply injured, may be regarded as the victims of Phthisis.

It is from not paying sufficient attention to the essential character of pulmonary Phthisis, that its traces have not been perceived in opening bodies, in which it had made but little progress; and this error has prevented the light that pathological anatomy would have been able to furnish upon the first periods

of this affection. This arises from the name of Phthisis having prepossessed the best understandings. To destroy the cause of this prepossession therefore is indispensable: and this it is which now induces us to develope, or rather recall to mind, certain truths which we think important to establish.

Many physicians seem to have confounded Phthisis with its characteristic signs; and as emaciation and hectic fever are two of the ordinary symptoms of Phthisis, it appears to them absurd to consider that person as affected with Phthisis, in whom they can discover neither fever nor wasting. This manner of considering Phthisis is as ridiculous as that of a naturalist, who having seen a young oak, should refuse absolutely to give it the name, because it does not exhibit as yet all its generic and specific characters. Nevertheless the oak, at the time that it springs from the earth, though it is but a very feeble plant, is the tree whose trunk will acquire so much strength. So it is with Phthisis: at its commencement it seems hardly a slight indisposition; in its last stages it subdues the stoutest man; it preys upon, consumes, and reduces to a skeleton,

him whose *embonpoint* freshness and health appear unalterable. Nevertheless it would be unreasonable not to admit that it is still the same disease, and, in order to support the opinion, to rest upon this, that in its first periods it does not exhibit all the symptoms which shall one day characterize it.

One must not then be a slave to the methods, and still less to the characters which are established to distinguish the species of diseases; this notwithstanding has happened with regard to Phthisis. Though as yet it is not perfectly agreed as to the acceptation of the word Pulmonary Phthisis, the majority of those who employ it mean that progressive wasting of the whole body which is the result of ulceration of the lungs. We must admit, that according to the etymology of the word Phthisis, φθισις, *corruption, consumption*, those only ought to be called Phthisical who are very thin, and spit up pus. It is probable that at first the physicians who designated a disease under this denomination wished to characterize it by the significant name which they gave it. But now our knowledge is too far advanced, not to regard as Phthisis the first degree of this disease; though there be not yet either a sensible wasting, or

the least trace of pus in the expectoration. Besides, many phthisical persons never spit pus in a very evident state; the name of Phthisis must not, therefore, be taken strictly literal, for in certain cases it would be as improper as that of chrysanthemum, when it is applied to the field daisy, which is called chrysanthemum leucanthemum, which signifies yellow flower to white flower.

After the idea I have given of pulmonary Phthisis, it appears that I consider persons as phthisical, who have neither fever nor falling away, nor purulent expectoration: it is sufficient that the lungs are affected by a lesion which tends to disorganize and ulcerate them. This affection is not to be regarded as a simple cause of Phthisis, but as the first period of the disease; since Phthisis is that affection whose continuance and successive progress produce death. In order then to acknowledge a pulmonary Phthisis, it would not be very reasonable always to wait until it had reached its last stage, which is the period when its pathognomonic symptoms are well marked. Is it not incontestable, that a physician ought to investigate a disease so as to know it at its commencement, in all the stages of its progress, and under all

its forms, as the gardener distinguishes the plants which he cultivates at every period of their growth, and as the entomologist knows an insect in all its metamorphoses ?

I am well aware that the practitioner will still find obscurity; but he ought not to persist in denying, either during life or after death, the traces of a disease already apparent, though it does not yet exhibit all the symptoms, all the injury that it will present when further advanced.

If I have attached so much importance to this discussion, it is because it was indispensable with respect to what is observed of those individuals who die in the first stages of pulmonary consumption, and without as yet exhibiting the symptoms of that disorder. It was besides useful to combat some celebrated prejudices, and to reduce to its just value a fallacious denomination. Nothing is so strong as the influence of language; and it is admitted, that erroneous denominations, equivocal definitions, and false observations, invoke in their train error, confusion, and the most serious faults, particularly in sciences which, like medicine, offer practical applications.

CHAPTER II.

DISEASES THAT HAVE BEEN CONFOUNDED WITH PULMONARY CONSUMPTIONS, FROM WHICH THEY ENTIRELY DIFFER IN THE NATURE OF THE INJURY OF THE LUNGS WHICH THEY OCCASION.

In many medical works different diseases of the chest have been confounded with Phthisis which ought to be carefully distinguished from it. These diseases are principally pulmonary catarrh, peripneumony, and pleurisy, when they follow a chronic course. At first sight, it seems impossible to confound these affections with Phthisis, especially after opening the dead bodies. Many cases have deceived the most intelligent physicians; and it is sometimes difficult to guard against the mistake. This it is which induced me to state the preliminary ideas which make the subject of the preceding chapter, and to fix the attention upon the essential character of the disease before us; a thing which was even

indispensable, in order that affections of the lungs in phthisical persons might no more be confounded with those that are observed in other diseases of the chest, which sometimes resemble Phthisis. The errors which have occurred in this respect do not appear surprising on reading most treatises on this disease. The symptoms of Phthisis, and its predispositions, are generally well laid down in authors, of whom, however, few have opened a sufficient number of bodies, nor are they sufficiently conversant with the differences which the state of the lungs presents, in the numerous diseases of the chest. This knowledge alone would secure them from error. In truth, they have confounded almost constantly with Phthisis the *pulmonary chronic catarrh*, when it occasions death either by exhaustion or by its complication with acute or chronic peripneumony. But pulmonary catarrh differs essentially from Phthisis, inasmuch as it does not disorganize the lungs; it is a disease which only affects the mucous membrane of this organ, *(Obs. 48 & 49)* and does not tend to destroy its parenchyme like Phthisis. Though, by its symptoms, the chronic pulmonary catarrh comes near to Phthisis, particularly when it is accompanied

with puriform expectoration, *(Obs.* 48, 49, 50, 51, 52, 53, 54*)* and hectic fever, yet I think it ought to be ranked amongst catarrhal diseases, and not under the name of mucous Phthisis, as is done in many excellent works where this variety of chronic pulmonary catarrh is fully described.

In other circumstances, individuals who have died of simple chronic peripneumony have been considered phthisical. This error is easily avoided, for peripneumony hardens the lungs, gives them, in some sort, the appearance and consistence of muscular flesh, or even of liver, but it does not produce ulceration; *(Obs.* 46*)* and if sometimes tubercles, ulcers, or any other similar affection are observed, it is because peripneumony was complicated with Phthisis.

There is a variety of chronic peripneumony which has been sometimes designated under the name of suffocation of the lungs, and which gives rise to a cough more or less strong, expectoration at one time ropy, at another puriform, a sort of hectic fever, and different other symptoms. But this disease must not be re-

garded as Phthisis—the state of the lungs does not allow it. In this variety of chronic peripneumony, this viscus is a little more firm, and a little more red than natural; it is very heavy, and when cut into, furnishes an extraordinary quantity of blood, of bloody serum, and of a serous and frothy phlegm, which runs out from all parts; *(Obs. 47)* but one does not observe either tubercle or ulceration. This disease seems nothing but a chronic phlegmasy, which choaks up the parenchyme of the lungs, and irritates the mucous membrane of the air passages, without becoming sufficiently violent to occasion the hardness designated carnification of the lungs.

We still more frequently find confounded with Phthisis the chronic pleurisy, which sometimes takes a free course, but which, at others, does not shew itself except by equivocal symptoms resembling other diseases. *(Obs. 40, 42, 44, 45.)* The two cases of pleurisy which have most frequently deceived physicians, during the life of the patient, are—1st, that where chronic pleurisy has not been attended by any local pain; *(Obs. 42)*—2dly, that where pleurisy has produced an effusion and purulent

expectoration, hectic fever, cough, and the last degree of marasmus. *(Obs.* 40 *&* 45.*)* The opening of dead bodies, which it would seem ought to prevent deception, has been a no less fruitful source of error, relative to the distinction between Phthisis and chronic Pleurisy. Many patients who die of this latter inflammatory affection, have considerable effusion of purulent or puriform matter in one side of the chest, and sometimes in both. *(Obs.* 40, 41, 42, 43, 44, 45.*)* This effusion frequently contains a large quantity of albuminous flakes, which swim in the fluid ; and albuminous layers, sometimes as broad as the hand, are spread from one side of the chest to the other, resembling a fleshy substance in a state of putrefaction. The liquid progressively effused in chronic pleurisy compresses the lungs, which give way by little and little, alter their form, shrink, and are reduced to a very small volume. In this state their surface has upon it an albuminous covering, and occasionally even a dense membrane covered over with puriform matter. In opening the chest in such cases, the lungs are found in a state hardly to be known ; and the sight of the albuminous layers of puriform matter which covers the viscus deformed and

shrunk to a very small size, makes one believe that the lung has been almost entirely destroyed, and changed into a sort of putrefaction. (*Obs.* 40, 41.) If however a careful examination be made, it is found entire under the accidental membrane which conceals it, and free from ulceration: the opposite lung is quite sound. But as pleurisy is sometimes complicated with Phthisis, we find in such complicated cases tubercles and ulceration in the compressed lung, and even commonly also in the lung of the opposite side.

Nor ought we to confound with suppuration of the internal structure of the lungs certain cases wherein chronic pleurisy has frequently occurred. In the cases in question, the contiguous surfaces of both lobes of the lungs are inflamed, and, covered with an accidental thick and very dense membrane, they contract at their edges a very close adhesion, which seems perfectly to unite them into one lobe. There takes place in the middle of the space between these two adjacent accidental membranes an effusion of an albuminous purulent or puriform fluid, sometimes to the amount of many ounces. A superficial examination of this species of

pleurisy occasions it to be taken for a vomica, which it in effect much resembles. The mistake becomes more easy, when in this case the whole cavity of the chest is in the state above described, and the lung altered in its form. One lobe of this viscus seems totally destroyed, and the other to contain a large cavity filled with pus, and an extensive ulceration that would seem to have consumed the parenchyme of the centre of this lobe. I have myself been deceived, before I had, by long habit, learnt to verify, with scrupulous care, the particular state of the injured organs. But an attentive examination of the lung shews, that in such circumstances its structure is not eroded, and that its lobes are entire. The supposed sac of a vomica, if detached with care, no longer exists; two false membranes are alone observed, separated at the middle of their two contiguous surfaces, strongly attached to each other at the edges, and uniting the two lobes of the lungs so intimately, that they seem only one. Lastly, there are some varieties of chronic pleurisy, where one lung has been supposed to be completely destroyed, and where it is asserted there did not remain a trace of it. This destruction of the lung has been regarded as

an effect of Phthisis; nor in respect to this was there the least doubt. In these cases however, the lung of the other side has been almost always found perfectly sound, which ought to inspire some doubt, for almost always both lungs are more or less affected in Phthisis. When we describe the state of this viscus, in the last degree of Phthisis, we shall speak of the supposed complete disappearance of the lung, and shall point out the means of re-finding it in these chronic pleurisies designated under the name of Phthisis. For the present we think we may deduce, from what has been said, the following conclusion:—

That since the state of the lungs of phthisical persons differs altogether from that which is observed in other diseases of the chest, these latter ought, incontestably, always to be distinguished from Phthisis whenever, in certain cases, they exhibit symptoms perfectly alike.

We have been speaking of diseases of the chest, which are sometimes regarded as Phthisis: we shall see, in the sequel, that many are taken for simple species of this disease, which are complications with different inflammatory affections.

CHAPTER III.

DISTINCTION OF THE DIFFERENT KINDS OF PULMONARY PHTHISIS, THE INJURY OF THE LUNGS, AND THE SYMPTOMS OBSERVED IN EACH KIND.

PATHOLOGICAL anatomy compels us to admit six kinds of pulmonary consumption, many of which are sometimes united in the same individual; but they are frequently found distinct, and it is in their simple state that one learns to distinguish them clearly, and at length to discover their complications, whether with one another, or with other diseases.

I have thought of describing the species of Phthisis by the following denominations:—

1. *Tubercular Phthisis.*
2. *Granular Phthisis.*
3. *Phthisis with Melanosis.*
4. *Phthisis from Ulceration.*
5. *Phthisis from Calculi.*
6. *Phthisis from Cancer.*

I do not assert that there are not more kinds of Phthisis. I here advance only the result of my dissections of phthisical subjects, and where I have preserved the details written at the time of inspection. The symptoms of these different kinds are often sufficiently alike at the first periods of the disease, though their course may be accelerated by different causes.

In the actual state of the science, it appears to me more suitable to distinguish the species by the different characters of the injury of the lungs, than by the difference of the symptoms alone. Hitherto almost all the physicians occupied with Phthisis have followed a different course in establishing the several kinds of this disorder. They have distinguished them by the symptoms which accompany them —by the causes which determine them, or which accelerate their course; and sometimes also by their complications with other diseases. From hence arises the astonishing multitude of species, as also their instability. In fact Morton admits 16; Sauvage 20; M. Portal 14; M. Baumes 3; other authors a greater or less number. This distribution of particular cases of Phthisis, under different titles, is very suitable, especially

when writing with practical views; because the species, varieties, and even complications which present the same curative indications, are arranged under the same title. But in a nosographical sense one cannot admit such species: it is like ranging birds which live on the same nutriment all in one species. We may be convinced of this by examining one or two of these species. Let us take, for the first example, Phthisis with hæmoptysis. It is evident, that in this supposed species the spitting of blood is at one time a complication, at another a casual symptom, since it may occur in all the species: whilst sometimes there is not the least trace of it to be observed even in those affected with tubercular Phthisis, the species which, of all others, is most frequently complicated with spitting of blood.

In the second place, Phthisis which succeeds inflammations of the chest ought not to be regarded as a particular species. When we read in the works of good observers the chapter upon this subject, and examine the result of every dissection, we discover that the observations upon which this species is founded present only complications of an inflammatory affection with different species of Phthisis.

The repressing of tetters, of the itch, the rheumatism, syphilis, pertussis, pleurisy, peripneumony, cutaneous inflammations, such as small pox, measles, scarlet fever, &c. sometimes occasions Phthisis; but much more frequently, as we shall see in the sequel, they only hasten the course of a Phthisis which has already produced an alteration in the lungs. Thus these different causes, though they may present important indications, yet, in a good monography, they ought not to constitute species of Phthisis, but ought to be scrupulously described at one time as varieties, at another as complications. Above all things, the treatment of violent coughs, which sometimes follow eruptive diseases, ought to be carefully explained. In fact, eruptive diseases and cough may accelerate a Phthisis already existing, and perhaps determine its developement in persons whose lungs are as yet sound.

Let us now trace the character of each of the six species of Phthisis.

First Species.—Tubercular Phthisis.

This, the most common species of all, is often simple. *(Obs.* 1, 3, 5, 9, 10, 11, 12, 16, 17.)

The lungs then present tubercles either encysted or not encysted. These tubercles are formed by a homogenious substance, always opake, of a white or dirty white colour, at one time yellowish, at another greyish. Some are only contiguous to the pulmonary tissue, and enveloped in a very distinct membrane; others do not present any cyst, and adhere to the parenchyme of the lungs by continuity of substance: these last are ordinarily marked with certain black lines. Both one and the other are penetrated by capillary blood vessels. The tubercles vary in size from a millet seed to that of a chesnut. Miliary tubercles are commonly excessively numerous. As to the others, they are so much the fewer the larger they are, and sometimes two or three only are to be found. Nevertheless, in many phthisical persons there occurs a great number of tubercles of all sizes, some encysted, others not. The exterior of encysted tubercles is commonly membranous, but in some cases it is of a cartilaginous and even of a bony structure.

Tubercles may be in three different states: they are at first very firm; they then grow soft in the centre, which is transformed into a clot-

ted purulent matter; in the end they are totally destroyed by suppuration. Their cyst then becomes the seat of an ulcer, and if they have no cyst they are equally followed by ulceration. These ulcers, which arise from the ulceration of tubercles, either encysted or not, are almost always covered by a distinct membrane which secretes the pus. When this membrane is not found, there is always an albuminous membraniform bed which supplies its place; except in the case where a suppuration has occurred in that part of the tissue of the lungs which became inflamed at the time the softening of the tubercular unencysted degeneracy took place. In this last case, the inflamed substance and the tubercle intimately united, are destroyed at the same time, and there follows a real ulceration of the tissue of the lungs, which is owing to suppuration of parts of this organ which were not tubercular. But in this case the tubercular Phthisis is united to the ulcerated Phthisis. When the tubercular Phthisis is simple, even when there are not any tubercles, except the unencysted, the membrane or albuminous stratum, which covers the ulceration, still exists. When there are many ulcerations, they communicate one with another, and form in the lungs many rugged cavities, sometimes very

extensive. Two kinds of openings are observed in these cavities: some, which lead to the ramifications of the bronchiæ, are round; others, which preserve the communication of the tubercles with one another, are irregular. The membrane surrounding the tubercles appears sometimes continuous with the mucous membrane of the bronchiæ; but in reality they are only united, and their nature is entirely different. Ordinarily the membrane which covers the ulceration is continued in all the parts which communicate together, and it furnishes a sheath for the large insulated vessels of the lungs, often observed in the excavations of the ulcer. The tissue of the lungs seems sometimes to have almost entirely disappeared, though usually it is not even ulcerated. It appears that in these cases the tubercles, in the course of the compression which has resulted from their progressive developement, have compressed it by little and little, and, in some degree destroyed, or at least reduced it to a very small size. The parenchyme of the lungs, round about the ulcer, may be commonly observed to be more or less altered, one while hardened, at another with but little consistency, and easy to be reduced

into irregular fragments by a slight pressure between the fingers. When the ulcerations are very small, the pulmonary tissue is sometimes almost sound round the membrane which secretes the purulent matter.

Symptoms.

The symptoms of tubercular Phthisis are described in all authors who have treated on pulmonary consumption. We often observe, even at the commencement, a dry cough ; and sometimes also the first signs of the disorder only appear after a spitting of blood, an inflammation of the chest, an eruptive fever, a cold, or some other disease. When Phthisis has begun even by a dry cough, at the end of a certain time a mucous expectoration takes place, in which opake white threads, or sometimes little lumps like rice much boiled, and sometimes streaks of blood, may be seen. The disease insensibly increases ; there is, in the evenings, a slight fever ; and if the patient is a young person the cheeks are frequently red, whilst the palms of the hands are of a burning heat. Nevertheless, the first stage of this

species presents many varieties, as well in the symptoms as in the duration. The disease sometimes appears ready to stop, when all at once it acquires fresh force. The second degree insensibly arrives: the hectic fever commences, the wasting makes progress, the expectoration becomes more abundant; constipation and sleeplessness, as well as night sweats, sometimes supervene. At length the signs of the last stage shew themselves at the end of some months, or sometimes only at the end of the first, second, or third year, or even later. The thinness then proceeds even to a marasmus: the hectic fever experiences only slight remissions; night sweats, diarrhœa, apthœ, expectoration, and cough exhaust the patient and destroy him, after having sometimes produced symptoms of scurvy, particularly in young subjects. In the last stages of Phthisis traces of pus are frequently, but not always found, in the expectoration. The matter expectorated by the greater part of phthisical patients is nothing but the produce of the secretion of the mucous membrane, which covers the air passages. If, as has been pretended, there be always pus in the expectoration at this period, it is sometimes so small in quantity, that its

existence cannot be ascertained. This is the reason that Phthisis is so difficult to be known, when the physician confines himself to examining whether the expectoration contains pus, instead of attending to the whole of the symptoms of the disease.

Second Species.—Granular Phthisis.

This species is very common, though there is no mention made of it in authors. The lungs are stuffed with miliary granulations, transparent, shining, sometimes speckled with black and bright lines or points. These granulations appear of a cartilaginous nature and consistence; their size varies from that of a millet seed to that of a grain of wheat; they are never opake, and they do not dissolve. These different characters perfectly distinguish them from miliary tubercles, which are of the same size, but which are always grey or white and opake, and in the end totally dissolve. The miliary granulations occasion at length ulcerations of the parenchyme of the lungs; and, in this case, there is always an evident albuminous membraniform stratum which lines

the ulcer, and even often a distinct membrane which lines the walls of the ulceration, and which secretes the pus.

Symptoms.

The granular Phthisis, when it announces itself, sometimes produces an obstinate dry cough, and sometimes a catarrhal affection, accompanied with transparent glairy expectoration. Often enough an hæmoptysis, more or less abundant, or an habitual sense of oppression, is the first sign of this species. When death happens before the lungs are ulcerated, it sometimes is from an hæmoptysis, or is the effect of a chronic pulmonary catarrh, or of hectic fever, or even of exhaustion carried to the last degree of marasmus. When the lungs are ulcerated, this does not happen till after a long duration of disease, which has produced, first, a dry and frequent cough, with or without hæmoptysis; then chronic pulmonary catarrh, hectic fever and marasmus. This species is sometimes altogether simple: (*Obs.* 2, 4, 14, 15) but it is almost always complicated with tubercular Phthisis, of which it

hastens the progress: it sometimes also accompanies the following species.

Third Species.—Phthisis with Melanosis.

This species is not very rare; authors have often perceived it without making it known in a distinct manner. It affects only adults, and, above all, persons advanced in years. Those whom it kills have ulcers in the lungs of various sizes, as black as coal, and very hard, sometimes a few lines thick, at other times a few inches. The parts remote from the ulceration are commonly very sound. But if the disease affects an entire lung, it is hard, compact, black as ebony or charcoal; and sometimes like half burnt leather, as authors have related who have published observations that may be applied to this species.

Symptoms.

Phthisis with Melanosis is frequently of long duration, and commonly, for a considerable time, does not shew any alarming symptom.

The sick have a moderate cough, accompanied with white or whitish expectoration, which does not always appear of a bad kind. The spits are usually round and rather opake; they float almost always in a considerable quantity of loose phlegm. If the expectoration is not formed in part by a pituitous matter, the spits we speak of have much consistency; but they float in water, in place of falling to the bottom of the vessel.— Almost all the persons affected with this species of Phthisis have attained an advanced age, rarely less than 50 years. When the disease is quite single they do not suffer much in the chest. There are many who do not feel the slightest uneasiness there; they only say that the cough prevents them from sleeping. They are observed to grow thin slowly, and their pulse is commonly a little more quick than natural. Some are subject to vomiting from the cough. In the last periods of their life many of these patients, arrived at a state of complete marasmus, seem scarcely indisposed, though they often spit much. Some die in a few days, from the moment when they first considered themselves affected with a serious disease. They are often subject, during the last months

of their disease, to an œdema of the legs, which frightens them much, though it commonly gives way easily.

This species is sometimes single; *(Obs. 19 & 20)* more frequently it is complicated with tubercular Phthisis, but in this complication the tubercles are not numerous. It is also sometimes united to granular Phthisis, and even to other species.

Fourth Species.—Ulcerous Phthisis.

This species is very rare. When it is genuine, *(Obs. 25, 26, 27)* there are not absolutely any of the preceding affections. The ulcer takes place in the very tissue of the lung: it is never covered by an albuminous membraniform layer, nor by any distinct membrane, as are the ulcerations arising from the suppuration of tubercles, of which some are of a large size. It almost always exhales a very fœted and gangrenous smell. Its surface, which is very unequal and irregular, is commonly covered with decayed parts of a brown colour, or with greyish, brownish, or even blackish purulent matter of a pungent

offensive smell. There are generally the traces of recent or remote hæmorrhage. The size of the ulcer is very variable; sometimes it would contain three pullets' eggs, at others scarcely a nut. It is generally seated in the substance of the lungs, but occasionally it occupies the surface. When this species is not complicated there is sometimes only one deep seated ulcer in one of the lobes, whilst, at a little distance, all parts are quite sound. But when the ulcerous Phthisis is complicated with other species there are almost always many excavations communicating with one another, and forming occasionally a great number of rugged places. In all cases, the structure of the part where the ulcer is seated becomes closer. It is sometimes without tenacity or consistence, but as it were putrid, and easy to be reduced by slight pressure into irregular fragments; at other times it is firm, dense, and gorged to the extent of from six to eighteen lines from the seat of the ulcer; thus forming a sort of hard kernel around it, whilst the lung at a little distance remains soft, crepitating and sound. Large blood vessels are sometimes found in these ulcerated cavities, insulated and quite bare, but entire, notwithstanding the destruction of the surrounding parts.

Symptoms.

Many persons affected with this species of Phthisis at its first degree have a cough, with expectoration ropy at its commencement, and eventually containing strings of blood & streaks of pus. In proportion as the disease advances pains arise in the chest, if there were not any before; after which the expectoration becomes manifestly purulent. Sometimes there is severe hæmoptœ. In short, in the last stage, almost all these cases of Phthisis are attended with a constant and well marked hectic fever, a burning heat, an excessively fœted odour, perceptible at a distance; and in most of them the expectoration exhales a similar odour to that which it emits in persons affected with chronic pleurisy, when the pus has penetrated the trachea, by passing through a fistulous passage in the lung compressed against the pericardium. (*Obs.* 40, 43, 45.)

Ulcerous Phthisis has been confounded, in the best authors, with chronic pleurisy terminating in purulent expectoration. This mistake is easily perceived by perusing the history

of symptoms given by them, and in reading their report of the dissections. An attentive examination of the state of the lungs after death will prevent this mistake; and whilst the patient is still alive, a cautious examination of the symptoms of the disorder, and the percussion of the chest properly performed, will almost always enable us to discover the species. Other authors have confounded ulcerous Phthisis with the last stage of tubercular, attended with large and deep excavations in the lungs. We have already mentioned the means of avoiding this mistake. Ulcerous Phthisis is commonly quite simple; *(Obs.* 25, 26, 27*)* but sometimes it is complicated with a tubercular diathesis; and tubercles are perceived either in or out of this viscus. At other times it is complicated with granular Phthisis; *(Obs.* 31*)* or accompanies Phthisis with melanosis, and even chronic peripneumony. The ulcerous Phthisis is easily discovered in cases complicated with tubercles; because, as we have mentioned already, there is no distinct membrane, nor any albuminous membraniform layer covering the ulcer in the ulcerous Phthisis, whilst one or other of these is always observed in ulcers which result from suppurating tubercles.

Fifth Species.—Calculous Phthisis.

This species, though very rare, has nevertheless been long pointed out. The lung contains concretions resembling either small stones, or knots of chalk, or ossified particles. It is sometimes entirely full of these concretions, which are almost always situated in the bronchial glands, or in small cysts, and sometimes between the bronchiæ, or between the first divisions of the ramifications of the bronchiæ.

Symptoms.

Most persons affected with this disease spit up small calculous fragments of a whitish or greyish colour, and often in great quantities: they have generally had a dry cough for a length of time; and some have been affected with the gout or nephritic colic.

This species is sometimes simple, (*Obs.* 33 & 34) but it is often complicated with some of those already mentioned. When it is combined with any other species, we commonly perceive

only slight shades of it, even after death; because in these complications there is scarcely ever more than a small quantity of calculous concretions.—(*Obs.* 32 & 39.)

Sixth Species.—Cancerous Phthisis.

This is the rarest of all the species. In the bodies of those who have fallen victims to it, the cancerous disease is sometimes found contiguous only to the parenchyme of the lung; at other times it is formed by the tissue itself of this viscus. When the cancerous masses are insulated, there are commonly many of them in the same lung. The pulmonary tissue is almost in a sound state about cancerous tumours, and may be easily separated from them. When the cancerous degeneracy is not in insulated masses, portions of the lung, and sometimes bronchial glands, are seen transformed into a white substance, evidently cancerous. In all the cases the degeneracy is evidently of the same nature, and belongs to the variety of cancer denominated by M. Laennec *Brain-like degeneracy*. The cancerous part is of a glossy white; sometimes firm, at others already in a

soft state, and always with extremely minute blood vessels running through it. When it is in a soft state, if you press it, you force from a number of points a liquid white matter almost resembling cream. This degeneracy follows absolutely the same course as other cancerous affections, and is well compared in its intimate structure to the cancerous parts found in the liver, or the change which the mucous membrane undergoes in a scirrhus stomach. The first stages of this cancerous degeneracy must not be confounded with the first stages of the tubercular. They have no affinity, even at first sight. It is to cancerous tumours, in their first stage, that the term scirrhus ought to be exclusively applied; and it ought to be witheld from tubercles, or tubercular glands, unless we wish to confound totally different objects.

Symptoms.

Cancerous Phthisis pursues a very slow course. Those who are attacked with it first complain of some difficulty in breathing and a slight cough. In a short time, as the disease increases, the oppression and cough

become more fatiguing. Most patients feel, from time to time, pains of the breast, slight, but more or less insupportable, which add to their habitual sufferings. Insensibly the cough becomes looser, with a more or less copious, and sometimes very white expectoration. The skin commonly assumes a pale yellowish colour, like that of persons affected with other cancerous complaints. Such phthisical persons are always more than thirty years of age, and most of them have cancerous tumours not only in the lungs, but also at the surface of the body, or in the liver or the stomach. In these latter cases, it is evident that the cancerous Phthisis is really no more than the effect of the general cancerous diathesis.

The cancerous Phthisis sometimes occurs single; (*Obs.* 35 & 36) at others, it is united to the tubercular Phthisis, or to the melanosis of the lung.

The six species of Phthisis of the lungs which we have been describing are often complicated with one another, and their symptoms have a great analogy. In all, we often observe cough, expectoration, gradual wasting, hectic

fever, sleeplessness, pain of the breast, spitting of blood, vomitings, costiveness, diarrhœa, apthœ and œdema; yet there is not one of these symptoms that is not sometimes wanting. But these different species, when they occur singly, are diseases quite of a different nature. They may all partake of one general diathesis; but as it appears to me, they ought to be separated in a pathological work, by referring each species to that particular degeneracy to which it belongs.

CHAPTER IV.

GENERAL CONSIDERATIONS AND TABLES CONCERNING PULMONARY PHTHISIS.

THE different kinds of Phthisis are by no means all equally frequent. From the facts which I have collected, one might determine their relative frequency by the aid of the following table, extracted from an account taken of 900 dissections:—

Tubercular Phthisis - - - - -	624
Granular Phthisis - - - - - -	183
Phthisis with Melanosis - - -	72
Ulcerous Phthisis - - - - - -	14
Calculous Phthisis - - - - - -	4
Cancerous Phthisis - - - - -	3
	900

In this table I have referred to the same species the particular cases in which this species was simple, and those where it was predominant.

It appears that the ulcerous Phthisis, which has been for a long time regarded as the most common, is in reality very rare.

As to the frequency of Phthisis, it may be said that it is truly frightful. I will place here the extract of the number of consumptions that were found amongst the 696 individuals who died in two wards in the Hospital of the Charité, in the space of three years:—

First year.—From 22d March, 1803, to the 21st March, 1804, inclusively, out of 300 deaths, 99 were phthisical.

Second year.—From 23d September, 1804, to the 22d September, 1805, inclusively, out of 228 deaths, 73 were phthisical.

Third year.—From 1st January to the 31st December, 1806, out of 168 individuals dead in the two wards, 72 were phthisical.

Thus the total number of deaths in the three years was 696, of whom 244 were persons in Phthisis.

From this account, more than one third of those who perished in the two wards were affected with consumption of the lungs. It is true, that the number of those who die of this disease is greater at the Charité than at the other hospitals, where scarcely any phthisical cases are received in a clinical state: they only place there a certain number of sick designed for the Charité. But taking this circumstance into the account, and even supposing that Phthisis occurs less frequently amongst people in easy circumstances than amongst others, I may state, that of 500 that have died, 100 at least died of Phthisis; and of the other 400, at least 50 were complicated with Phthisis. It may then be asserted, that Phthisis is one of the most frequent and one of the most fatal of all diseases.

This disease affects all ages, from the most tender infancy to the most decrepit old age. Infants less than a year old die of Phthisis, and old persons at more than 80 are victims to it.

It is nevertheless true, that it is more common from the 15th to the 50th year, than at any other period of life. In a Memoire upon Tubercles, read at the Society of l'Ecole de Medecine, on the 12th Ventose, year XI. and published in the Journal de Medecine, of the month Germinal of the same year, (*vol. vi. p.* 16) I have given a comparative table of 88 phthisical persons who died between the ages of 5 and 80 years.

The table of 100 phthisical persons who died at the Charité, from the third Vendemiaire, year XII, to the 26th Fructidor, of the same year, presents the following result upon the frequency of Phthisis, at the different ages :—

Yrs. of Age.	*No dead.*	*Yrs. of Age.*	*No. dead.*	*Yrs. of Age.*	*No. dead.*
15	1	33	1	50	1
17	1	34	2	51	3
18	2	35	3	52	3
19	3	36	3	53	1
20	3	37	1	54	2
21	2	38	3	55	2
22	3	40	5	56	1
23	5	41	1	57	1
25	2	42	6	60	2
26	2	43	2	61	1
27	4	44	2	62	2
28	1	45	2	67	1
29	1	46	1	68	1
30	3	47	3	69	1
31	3	48	2	70	2
32	2	49	1		—100

The same table divided by 10 years:—

Age.	No. dead.	Age.	No. dead.
From 15 to 20 years	10	From 40 to 50 years	21
20 to 30 —	23	50 to 60 —	15
30 to 40 —	23	60 to 70 —	8——100

Consumption of the lungs is almost equally fatal to both sexes, and occasions death in all seasons, as may be seen from the following table of those who died of this disease in the two medical wards of the Charité, in the course of three years:

FIRST YEAR, 1804.	*Deaths.*	SECOND YEAR, 1805.	*Deaths.*	THIRD YEAR, 1806.	*Deaths.*
Germinal,	9	Vendemiaire	9	January,	8
Floreal,	7	Brumaire,	4	February,	5
Prairial,	4	Frimaire,	8	March,	3
Messidor,	11	Nivose,	3	April,	1
Thermidor,	3	Pluviose,	3	May,	5
Fructidor, and the 5 complementary days,	14	Ventose,	7	June,	7
Vendemiaire	7	Germinal	4	July,	2
Brumaire,	8	Floreal,	9	August,	13
Frimaire,	7	Prairial,	8	September,	7
Nivose,	13	Messidor,	6	October,	7
Pluviose,	7	Thermidor,	2	November,	7
Ventose,	9	Fructidor, & the 5 complementary days,	10	December,	7
Total,	99	Total,	73	Total,	72

The French began their year, in the late calendar, the 23d of September, and divided it into 12 equal months, each consisting of 30 days, and in order to complete the year, introduced the remaining days between the 17th and 23d of September.—Germinal began 22d March; Floreal, 21st April; Prairial, 24th May; Messidor, 20th June; Thermidor, 20th July; Fructidor, 19th August; Vendemiaire, 23d September; Brumaire, 23d October; Frimaire, 22d November; Nivose, 23d December; Pluviose, 21st January; Ventose, 20th February.—EDITOR.

The totality of these consumptive persons who died in three years amounts to 244. In adding together those who died in the same season of the three years, we have the following table:—

Number of consumptive persons who died in

Autumn - - - -	64
Winter - - - - -	58
Spring - - - -	54
Summer - - - -	68
Total,	244

This table shews, that in every season nearly an equal number die of Phthisis.

The duration of Phthisis is very variable. Some die in a few weeks, dating from the moment when they first exhibited symptoms of the disease: others live more than 50 years, tho' they present unequivocal signs of the disorder all the time. We shall introduce here the account of 200 individuals who died of Phthisis without complication, after a duration very variable, dating from the time the cough by which the disease commenced first shewed itself. All these patients were opened; therefore there could not

be any mistake about the state of the lungs. The history of the disease was collected with sufficient detail, so as to enable us to determine the precise time when the first symptoms of Phthisis commenced.

Duration of Phthisis in 200 persons who died of this disease, not complicated with any other injury capable of producing death:—

DURATION.		NO. DEAD.	DURATION.		NO. DEAD.
25	Days	1	20	Months	3
34	—	1	21	—	6
42	—	1	22	—	3
45	—	1	23	—	2
2	Months	3	2	Years	2
2½	—	4	2	do. & 1 mo.	1
3	—	5	2	do. & 3 do.	3
3½	—	6	3	—	2
4	—	6	3	do. & 2 mo.	1
4½	—	8	3½	Years	2
5	—	6	4	—	2
5½	—	5	4½	—	2
6	—	13	5	—	1
7	—	18	6	—	1
8	—	14	7	—	3
9	—	12	8	—	1
10	—	8	8	yrs. & 3 mo.	1
11	—	7	9	Years	2
1	Year	5	9	do. & 1 mo.	1
13	Months	6	12	Years	1
14	—	10	18	—	1
15	—	5	32	—	1
16	—	3	35	—	1
17	—	4	40	—	1
18	—	2			
19	—	2		Total,	200

We shall more clearly perceive the difference in the duration of Phthisis by examining the following table, where the proportion of deaths is indicated by months, three months, six months, and years :—

Months.	Number of Deaths.	Three Months.	Number of Deaths.	Six Months.	Number of Deaths.	Years.	Number of Deaths.
1	1						
2	6	1st	16				
3	9			1st	60		
4	12						
5	14	2d	44				
6	18					1st	124
7	18						
8	14	3d	44				
9	12			2d	64		
10	8						
11	7	4th	20				
12	5						
				3d	30	2d	48
				4th	20		
						3	6
						4	5
						5	3
						6	1
						7	3
						8	1
						9	3
						from the 9th round to the 40th	6
						Total	200

Tubercular Phthisis seems to be the species which, under all circumstances, is the soonest fatal, by carrying through all the stages

those who, in truth, had the seeds of the disease, but never till then felt any symptom of it. The patient marked in the table before the last, as having died on the 25th day of Phthisis, appeared quite well when this disease shewed itself on the 17th Oct. 1803. It began with a cough, oppression, puriform and bloody expectoration, fever and costiveness. There succeeded on the 8th day a diarrhœa, which never abated. The other symptoms continued; in a few days the emaciation was excessive; the expectoration became clearly purulent, and he had night sweats. In short, reduced to the last degree of marasmus, he died 10th November, 1803. On opening the body, the lungs were found full of tubercles, like peas, and with miliary, and as it were cartilaginous granulations. There were besides a great number of foci in a state of suppuration, formed by softened tubercles, particularly in the superior lobes. These excavations were full of white pus, and many of them would contain a nut. The tissue of the lungs was not hard round the tubercles, nor near the small foci. Many places in the intestinal canal were as if excoriated and slightly ulcerated.

Phthisis with Melanosis appears to be that which commonly lasts the longest; but of those in whom the Phthisis lasts a great many years, some are affected with tubercular Phthisis. There are then but few tubercles, and the ulcerations produced by the tubercles seem to form a purely local disease, which does not affect the vital functions.

It will be noticed, with surprise, that the greater part of our tables are not founded on the whole of the dissections of phthisical cases, from which we inferred the relative frequency of the species of this disease. Some of them, in truth, are founded on not less than an hundred dissections. In our justification, we ought to mention, that this arises from causes to which we are strangers, and which did not permit us to give to this part of our labours the extent and accuracy we could have desired:—1st, all these dissections were not at the Charité;—2dly, the greater part of those who die of Phthisis at that hospital would not furnish materials for the preceding tables; because, for some years back, a very small number only of those who die in the medical wards, from the month of November

to the end of the month of March, are allowed to be opened: the rest have been given for anatomical dissection, which has totally restrained the enlarged inquiries we commenced into all the diseases, both acute and chronic, treated at the Charité. This mutilation of our work need not appear surprising; since if absolutely every body is not opened nothing accurate can be presented upon the totality of deaths, upon the relative proportion of different diseases, or upon the seasons of the year which are favourable to certain organic affections. We therefore repeat, it is not to any abatement in our zeal, that the discontinuance of the most important part of our labours in pathological anatomy ought to be imputed.

CHAPTER V.

STATE OF THE LUNGS IN THE DIFFERENT PERIODS OF PULMONARY PHTHISIS.

THE great number of dissections I have made, has allowed me to see the lungs in every degree of pulmonary consumption; for it often occurs that persons die of accidental disease, complicated with the different periods of Phthisis. Peripneumony sometimes destroys in a few days those affected with Phthisis at the first or second stage: again a continued fever, hæmoptysis, or other acute disease, produces death in phthisical subjects; and it is in these cases particularly that one sees the state of the lungs in the first periods of this disease.

But here it is necessary to make a very important remark. According to one of the tables which I have introduced in the 4th chapter, the course of Phthisis is sometimes

very rapid, dating from the moment when the first symptoms are noticed; at other times it is very slow. Thus this disease, without complication, may terminate fatally in a few weeks, by making the patient pass through all the stages of Phthisis. At other times it shews itself in early life, never gets perfectly cured, and continues even to the period of old age, as I have often seen, and as all good collections of observations on this subject attest. When an old person, affected with one of these chronic consumptions, dies from another disease, there are circumscribed ulcerations and a few tubercles found in the lungs; and very firm indurations surround the ulcers, which seem to be bounded, and to have performed in some sort the office of an issue.

These facts are mentioned to shew how it happens, that in some persons, at different periods of life, symptoms are observed of Phthisis which seems to get half well, and to renew itself at various times. They ought also to induce us not totally to abandon the consumptive at any time. In truth, if almost all die in a few months, or in the course of one or two years, there are nevertheless some who

live a great many years, particularly when every thing is avoided which can irritate the lungs.

But if, on one side, we gain a little confidence from the length of some consumptions, on the other we must admit that in very many cases this formidable disease is already absolutely incurable, when first we perceive the symptoms which induce us to suspect its existence, even in persons stout, plump, and presenting the freshness of youth.

Three stages are admitted in the pulmonary Phthisis, viz.—Phthisis at its commencement, when confirmed, and at the third degree. The commencing Phthisis only takes its date from the origin of the cough, the pectoral oppression, the feverish movements, &c.; but I think we ought to allow a period before this, when the disease should be designated under the name of occult Phthisis, or the germ of Phthisis; because, in many species previous to these symptoms, there are intervals during which the patient, who has already the lung deeply injured, appears still to enjoy good health. *(Obs.* 1, 2, *&c.)* Thus then I shall divide the duration

of Phthisis into four periods, and shall exhibit the state of the lungs in the phthisical at each of these periods. I do not assert, nevertheless, that in the first, second, and even third period of Phthisis, all patients have their lungs already much injured. I here exhibit nothing that is not the constant result of dissections I have actually made.

Whenever I have found the lungs perfectly sound in those whom I thought phthisical, but had died of an accidental disease, *(Obs.* 48, 49*)* I fancied I had erred in the diagnostic, and that I had taken for species of Phthisis peculiar cases of other affections of the chest. I have the less difficulty in confessing this mistake, from having often cured phthisical cases in the first years of my practice; though I now sincerely acknowledge, that I have not cured any since I have more perfectly discovered the nature of Phthisis. I have, however, sometimes palliated the symptoms, and even suspended the progress of the disease. And I have also cured many with severe coughs and a puriform expectoration, who were clearly in a state of hectic fever and incipient marasmus. *(Obs.* 50, 52.*)*

Before describing the state of the lungs in the different periods of Phthisis, I ought to premise, that it is principally in the tubercular and in the granular Phthisis I have witnessed the injury of the lungs in the four stages of the disease. Many of the other species are of rare occurrence, and I have not been able to observe the change in the organ of respiration which they produce at their commencement. The examination of this viscus, in the first stages of Phthisis, is only possible when some accidental disease has taken off the patient in a sudden manner; and it is in the very common species alone that we can witness any considerable number of these precipitate deaths.

The state in which I have found the lungs, in the four periods of Phthisis, is as follows:

First Period.—Occult Phthisis, or germ of the disease.—(*Obs.* 1, 2, 3, 4, 5, 6.)

The lungs include tubercles either encysted or not. They may contain also miliary transparent granulations, or some other degeneracy which does not as yet materially impede their

functions. The parenchyme of the lung is sound, or of a slight degree of hardness around the affected parts. Sometimes the tubercles are not larger than millet seeds, or lentils, or small peas; at others, there are also tubercular affections, even already as large as nuts. The centre of these tubercular bodies is not, however, as yet softened. The tubercles, as well as the miliary granulations, may be in a small number, but sometimes the whole lung is full of them.

Symptoms.

Nothing as yet shews the affected state of the lungs, nor is there any symptom to excite a fear of Phthisis.

Second Period.—Phthisis called incipient.—*(Obs. 7, 8, 9, 10, 34, 43.)*

The change in the lungs is a little more advanced: a certain number of the tubercles are grown soft in the centre, or even already suppurate, whilst the majority are still in the state of what are called crude tubercles. The tissue

of the lung around the tubercles, miliary granulations, or other affection, presents a hardness, or more complete obstruction, especially around those tubercles which are already in a softened state.

Symptoms.

Different symptoms, such as the cough, general uneasiness, febrile movements, &c. occasion a suspicion of the existence of Phthisis, or clearly announce it.

Third Period.—Confirmed Phthisis. (*Obs.* 11, 12, 13, 24, 32.)

The tubercles that are still crude are less numerous; those which have the centre in a softened state are in much greater number than in the former period: there are many of them from which the grumous pus is already almost evacuated. Some are already transformed into a small ulcer. The parenchymatous tissue is hardened around the soft tubercles, is more gorged and more injured round tubercles which have already suppurated, and

is still more deeply injured around the incipient ulcerations. Some of these ulcerations, even about the end of this stage, form small excavations capable of holding peas, and even filbert or hasel nuts; but a fine membrane, or an albuminous membraniform stratum, lines the whole of the ulcerations.

In the simple granular Phthisis the obstruction and hardened state of the parenchyme around the granulations are to a greater extent than during the second period, and we may perceive in the bronchial ramifications a copious mucous or puriform uxudation.

Symptoms.

The signs of Phthisis are clearly manifest. The oppression of the chest, the cough and hectic fever, preclude all hope: the emaciation has now made considerable progress.

Fourth Period.—Phthisis at the last stage, named ordinarily Phthisis at the third degree. *(Almost all the cases described from the 14th to the 39th.)*

The lungs exhibit all the alterations that have been remarked in the different publications relative to Phthisis. I have described them in speaking of the different species of this disease; and some of these changes are stated in a very detailed manner in the remarks which I published on Tubercular Affections encysted and not encysted; but the lung is never completely destroyed, as has been stated in some very valuable works. What has given rise to this mistake, which I mentioned in the 2d chapter, page 14, is the empyema, which is the consequence of pleurisy become chronic; because, in certain circumstances, the lung applied, by means of a purulent collection, against the mediastinum or the pericardium, has been so completely compressed, and is so accurately covered by a false membrane, that one does not discover it. *(Obs.* 41.) Indeed one ought to know where to look for it in order to find it. Sometimes it is not an inch thick, and seems to make a part of the mediastinum or pericardium. Even a superficial examination is sufficient to enable one to discover the lung where the tissue is not altered, but only flattened and entirely deprived of air by the progressive compression. In almost all these particular

cases where authors have described the complete destruction of one lung, they say the other lung was quite sound.

Symptoms.

The exhausted patient is arrived at the last degree of marasmus. He is tormented with cough, expectoration, hectic fever, night sweats, diarrhœa, aphthæ, or other symptoms.

CHAPTER VI.

STATE OF DIFFERENT PARTS OF THE BODY OF THOSE WHO DIE OF PHTHISIS OF THE LUNGS.

THE lungs are the only parts which always undergo an organic change in the pulmonary Phthisis; for the universal diminution of nutrition which constitutes marasmus cannot be counted amongst the organic lesions. Nevertheless there are few consumptive persons whose lungs alone are affected.

Organic alterations in other parts depend, some on the nature of the complaint which has produced the consumption; others on the proximity of the affected viscus; and some in short appear owing to the association of

the action of the lungs with other organs.—Let us take a view of each of these different alterations.

Those which are the most common depend on tubercular diathesis, which is the most usual cause of consumption of the lungs. The lesions which this diathesis produces, attack

1. The larynx and trachea.

2. The intestines, and perhaps the whole alimentary canal.

3. The mesenteric glands.

4. The cervical glands.

The injury of the larynx is very frequent in pulmonary Phthisis: one while the mucous membrane of the larynx is only thickened and a little red; at other times it exhibits small ulcerations like aphthæ. Ordinarily these small ulcerations are the result of a miliary or lenticular tubercle which has formed in the mucous membrane, or between this membrane and the cartilages of the larynx. These small ulcerations enlarge and sometimes occupy a space almost circular, from three to five lines in diameter: they are sometimes superficial, but

often deep seated; the mucous membrane is then quite penetrated; and commonly enough, in this case, some of the cartilages of the larynx are carious, particularly the arytænoid. Sometimes also small ulcerations are found in the trachea, and even in the bronchiæ, but less frequently.

Comparative table of the state of the larynx in 100 phthisical patients who died in the year XII:

In 100 phthisical persons—

Larynx sound, - - -	83
Larynx diseased, - - -	17

All the last were under 50 years of age.

Before death this affection of the larynx discovers itself by a progressive extinction of the voice, which sometimes ends in a complete loss of it. The patient then rather whispers his words than pronounces them in a sonorous manner.

In remarks on Tubercles, published some years ago, I have described the affection of the cervical and mesenteric glands become tu-

bercular, and I have given a detailed account of the ulceration of the mucous membrane of the intestines, arising from the same taint. Of all the alterations which we observe, there is none perhaps more remarkable than this ulceration, because of the diarrhœa which so frequently attends it. I shall speak of this symptom under the article Treatment; but shall introduce here the comparative table of 100 phthisical patients. We may form an idea by this table of the frequency of these ulcerations:

Of 100 who died of Phthisis in the year XII.
33 had the alimentary canal quite sound.
67 presented ulcerations in the intestinal canal.

In some of the patients whose intestines are ulcerated, the intestinal ulceration proceeds from miliary transparent granulations; but commonly they are the miliary tubercles which give rise to this affection.

There is another lesion too common in Phthisis to pass unnoticed, and I think I might properly introduce it here; it is the excoriation arising from aphthæ. I suspect that this

affection proceeds from the tubercular diathesis exalted by the hectic fever; but this is only a simple conjecture, which I am far from advancing as a positive fact. However this may be, the aphthæ which so frequently affect the mouth, pharynx and even the nasal passages of consumptive persons, neither resemble the aphthæ of the different acute febrile diseases, nor those which arise spontaneously in persons in health. In the consumptive we seldom see these aphthæ commence with a small vesicle full of serum, which bursts, and is followed by a small whitish ulcer, with elevated edges and a conical base.

When the consumptive have aphthæ, this eruptive affection commences with an alteration in the mucous membrane; it becomes covered with an infinity of small flakes, as white as if they were silvered over. Whenever these flakes come off, the mucous membrane is to be seen, and is uniformly excoriated and very painful. I cannot ascertain the precise cause of this eruption of aphthæ in the consumptive; I only know that we cannot attribute it to the contact of purulent matter. Some facts prove evidently that it arises from a general dispo-

sition. We shall enumerate three of those which appear decisive:—The first is, that in some patients the aphthæ appear at the same time in the mouth and in the interior parts of the labiæ; the second, that in other persons aphthæ present themselves at the same time in the mouth and in the ears. I have seen this ulceration of the ears spread so as to pierce the cartilage, and even the external skin of the opposite side. There was then a small hole in the pendulous part, which, examined from the convex side, seemed to have been made with a punch. In short, wherever aphthæ appear in uterine diseases, accompanied with hectic fever, the aphthous eruption resembles that observed in Phthisis, though the seat of the disease is so far from the mouth.

Independently of the general injury arising from the very nature of the disease which has terminated in Phthisis, we have said that there are other affections common enough in consumptive persons, viz.—those of contiguity, and those which depend upon a connexion between the action of the lungs and that of some other organ.

We shall place amongst those of contiguity the lesions of the pericardium, and above all, those of the pleura. In all the species of Phthisis this latter membrane has upon it in different places a membraniform albuminous stratum, and more frequently it is lined by accidental well organized membranes: it almost always presents cellular layers and filaments, which connect the lungs more or less intimately with the contiguous parts.

As to the pericardium, it is seldom affected in a severe manner by the vicinity of Phthisis; but the heart, in most consumptions, presents small membranous plates, which appear like whitish marks upon this viscus. They are easily removed, because they are only as it were glued to the surface of the heart. These small plates are fibrous; they pass to the cartilaginous, and lastly to the osseous state, like all other accidental membranes which form upon serous ones; and, as we frequently see, upon the surface of the spleen, upon the costal portion of the pleura, and in the tunica vaginalis testis.

Lastly, there are alterations which depend perhaps on a certain association of action be-

tween the lungs and other organs. Amongst these affections, the most remarkable is that of the liver, which in some persons becomes yellow, large and fat. When this viscus includes a great quantity of fatty matter, if it be cut with a knife, it greases the blade. This grease is always rather of a dull yellow; it resembles a mixture of butter, ocre and sulphur, but is very soft to the touch.

It is easy to discover whatever small quantity of fatty matter the liver contains: we have only to expose a small portion of this viscus, placed on paper, to the heat of the fire. Parts of a sound liver submitted to this test dry up and never grease the paper; whilst those of a fat liver always grease it in a very evident manner. It is probable that this disease of the liver does not depend precisely upon the ulceration of the lungs; for the liver is found perfectly sound in many subjects with ulcerated lungs. Again, the liver has been found of an enormous size, and almost transformed into fatty matter, where the organ of respiration was perfectly sound in individuals who had died of diseases totally unconnected with consumption of the lungs. We

shall say nothing of other alterations which are found in some consumptive persons, and which do not depend on Phthisis. They are sometimes complicated, and at others merely coincident; in consequence their description would be out of place in this work.

CHAPTER VII.

COMPLICATION OF PHTHISIS WITH DIFFERENT DISEASES—EFFECT OF THESE COMPLICATIONS—ERRORS TO WHICH THEY HAVE GIVEN RISE.

In the first chapter we insisted on the essential characters of Phthisis, because, if we lose sight of it, we might be tempted to regard the periods by which it commences as if they did not belong to this disease, and should often take for causes of Phthisis different affections which are only complicated with this disease, and do not produce it. Let us examine how these different complications have deceived observers, and how we may avoid the same mistakes. In order to effect this, it is necessary to mark with care these complications, and shew how they have produced the delusion.

I have already remarked, that if in many persons pulmonary consumption reaches its last stage in a simple state, there are many cases also where it is complicated with some other affection, which sometimes suddenly terminates the life of the patient, and at others hurries on the consumption in a rapid manner. These cases of complication, well considered, may instruct practitioners, and prevent mistakes. They will be the more instructive, the more attention is given to the facts I am about to develope, and the results to which the whole of these facts necessarily lead.

The most common cause of Phthisis is the tubercular taint, which is essentially a chronic disease. To establish this latter truth, it is sufficient that we call to mind certain observations on pathology and pathological anatomy, which appear to me indisputable.

The glands of scrofulous persons are often enough obstructed. The obstruction has happened on a sudden or insensibly. When it has occurred suddenly, it may disappear very readily, or remain a long time. If an accidental cause destroys a scrofulous person whose glands

are thus obstructed, we commonly find that those which have enlarged slowly are transformed in their whole extent, or at least partially, into tuberculous matter. Those which have increased rapidly are sometimes white and sometimes redish internally; but one does not observe in them, at any time, the least indication of tubercular degeneracy. Manifest traces of it, on the contrary, are observed in those which have exhibited during some time a slight intumescence, to which a much more considerable obstruction has at length succeeded.—If tubercular glands suppurate, this suppuration is of a very long duration. All the tubercular matter must be expelled, in order that the part of the gland which was only tumefied may insensibly return to its natural state. In this case also the cure of the ulceration which has scceeded to the abscess is always very slow. On the contrary, if an abscess occur in glands which do not contain a tubercular kernel, the exit of the pus is commonly easy, and the cure pretty quick; the gland tumefied by inflammation, afterwards easily subsides.

When a gland shews itself under the chin in those who have a carious and frequently painful

tooth, the swelling of this gland may last many years. If the tooth is extracted, the gland insensibly diminishes, and the obstruction is completely resolved. If the individual is destroyed by an acute disease whilst this gland is obstructed, no trace of tubercular affection in the gland is found after death; its volume alone is augmented, and its tissue slightly reddened. The same results take place in many other circumstances, and in particular when the axillary glands are examined after being long tumefied by the effect of a blister on the inside of the arm. These facts, and many other analagous ones that we might call to mind, prove, in an incontestable manner, that every chronic inflammation is not sufficient to render a gland tubercular.

It happens often enough, that the cervical glands swell in scrofulous persons whilst they are very young; some suppurate, the enlargement of others disappears altogether with time. But in certain individuals some of these tumid glands remain voluminous, hard and indolent during life. In examining these glands after the death of the subjects who sometimes attain a great age, they are found always trans-

formed, entirely or in part, into tuberculous matter. It seems that in this case the gland has remained stationary, like what one observes in some wens which arise under the hairy scalp.

Tubercular degeneracy being a chronic and indolent disease in itself, one may conceive how it makes great progress, without altering the functions in a sensible manner. It is thus that cancer of the breast beginning acquires sometimes the size of an almond, and even of a walnut, before the affected person perceives its existence; it may remain indolent during many months and even entire years. But when it becomes painful, and passes from the state of an indolent scirrhus to that of an ulcerated cancer, the disease is already become incurable. One may indeed extirpate it with the knife, but cannot cure it by internal medicines.

It is the same thing with tubercles of the lungs encysted or not encysted, miliary granulations and calculous concretions. Often these diseases do not give any indication of their existence but by the mechanical oppression

they produce, which frequently happens at a very advanced state. This oppression gives rise to a dry cough more or less frequent, but without evidence of disease, without alteration in the state of nutrition, and without fever.

When persons affected in this manner die from copious hæmoptysis, or other very acute disease, the tubercular degeneracy is found at its first degree; or if the lung, having already attained that period, is crowded with tubercles, miliary granulations, or small calculi, as will be seen by *Obs.* 1, 2, 3, 4, 5, 6, 7, 8, & 34, it is quite evident that Phthisis is incurable from the instant its existence is suspected. But if there are only few tubercles, as is sometimes the case, they may, like certain obstructed cervical glands, remain stationary many years, and occasion repeated signs of Phthisis, which we may succeed in dissipating up to a certain period. The tubercles that are not numerous may also give rise to a very protracted Phthisis, whose course shall differ altogether from that of Phthisis in general.

Again it ought to be remarked, that the commencement of Phthisis is not always to be

attributed to certain diseases, which, without having occasioned the tubercular degeneracy, hasten its course, or become fatal in consequence of another pre-existing alteration in the lungs. The diseases I would speak of here, are—1st, Eruptive Fevers; 2d, Peripneumony; 3d, Pleurisy; 4th, Pulmonary Catarrh; 5th, Spitting of Blood; 6th, Diseases of the Heart; 7th, Syphilis.

Before entering on the discussion of these different objects, it is necessary to remark, that all the observations we have been making prove that tubercular degeneracy is a chronic disease; that it is of a peculiar nature; and that it ought not to be regarded as the consequence of any inflammation whatsoever, either of the glandular or of the lymphatic system. Let us now examine what happens when these diseases that we have been enumerating occur in phthisical persons.

I. Eruptive Fevers, such as measles, scarlet fever, &c. occasion an irritation of the mucous membrane of the air passages; this irritation terminates sometimes at the close of the eruptive disease, at other times it continues. In

some subjects a very copious expectoration occurs, which appears altogether purulent. *(Obs.* 48.*)* When these get better, one is induced to believe they have expelled a vomica, or have been cured of a true Phthisis.—There are some of them who die, and one is astonished to find the lung sound. *(Obs.* 48.*)* There is no other alteration than a choaking up of the mucous membrane of the air passages, which is rather thickened and very red, and which, when it is compressed, transudes a puriform mucous matter. Many physicians who have attended, or who do attend the patients at the Hospital la Charité, have frequently witnessed this fact. This state of the lung had been often noticed before, and de Haen relied on similar examples when he maintained that the pus is formed in the blood. But if a great part of the sick, who retain a pulmonary irritation at the end of eruptive diseases, have the lung uninjured, and though almost all get well, yet there are others whom nothing can relieve, and who become consumptive at the end of the eruptive fever. Of these latter, some die at the end of many months in the last degree of marasmus; and this Phthisis is supposed to have resulted from the eruptive

fever badly treated, whilst the germ of it actually existed before the attack of this fever. There are in truth some of these patients who die from an accidental cause immediately after, or even in the course of the fever, whose lungs are found full of tubercles, sometimes already softened in the centre. Besides, those who at the end of these fevers attain the third degree of Phthisis, have no simple ulceration of the lungs as ought to happen if the eruptive disease had occasioned an excoriation of the mucous membrane of the air passages, followed by an ulcer of the lung. Here, as after the other diseases which are charged with having produced Phthisis by ulcerating the lungs, one perceives only tubercles and ulcerations, which evidently result from suppurated tubercles. These ulcers, as we have already shewn, differ from those that are observed in the ulcerous Phthisis: they are always covered with a membraniform albuminous stratum, or their sides are lined by a distinct membrane; there are besides sometimes tubercles more or less numerous, and sometimes miliary granulations all around them.

Phthisis also frequently succeeds peripneu-

mony; and this fatal termination is ascribed without hesitation to improper treatment of the peripneumony: but observation proves that frequently the tubercular affection has preceded the peripneumony. (*Obs.* 3 & 9.) On the other hand, I have opened a great number of subjects dead of chronic peripneumony, and in these cases there were no tubercles in the lungs, which were carnified or converted into a substance like liver. (*Obs.* 46.)

I can say the same of acute or chronic pleurisy as of peripneumony. But we ought never to forget that pleurisy and peripneumony are much more dangerous to those affected with tubercles of the lungs than to others. These tubercles, placed in an organ inflamed or irritated by the shaking of the cough, render incurable pleurisies or peripneumonies which would have terminated in a cure. Also amongst the sick who die of chronic pleurisy, those who have no tubercles ordinarily die much later than those who have; and the death of such as exhibit this complication is the more early in proportion as the tubercular degeneracy is the greater. This is particularly the case with young subjects from 18 to 25 years of age, ex-

posed to the numerous causes of irritation of the lungs.

II. Peripneumony and pleurisy are also frequently complicated with Phthisis arrived at the second or third degree. In this case they exasperate the sufferings of the patient and abridge his life; but they are so evidently complications with Phthisis, that no one attempts to attribute to them the origin of this disease.

III. Pulmonary Catarrhs, acute or chronic, have also been regarded as causes of Phthisis, which from this prejudice, formerly universal, we still vulgarly call *a neglected cold*.— But all physicians at this day think that this supposed cold was the first degree of Phthisis. Nevertheless it must be remembered that tubercles, by irritating the lungs and mucous membrane of the air passages, are very capable of provoking and keeping up the rheum; and it is principally the chronic pulmonary catarrh which reduces and destroys by its duration and abundant expectoration many of those who, without ulceration of the lung, die with granular Phthisis. (*Obs.* 14.)

IV. Spitting of blood, which is one of the most formidable symptoms of consumption of the lungs, and in other circumstances is a complication with it, passes for one of its most frequent causes. It is sufficient, in order to divest ourselves of this error, that we pay attention to the following circumstances:

A. An individual without being suspected of Phthisis perishes all at once from hæmoptœ, and the lung is already full of tubercles.—(*Obs.* 4 & 6.)

B. Many persons who have spit blood more or less violently, do not shew any trace of tubercles or of ulceration of the lungs, whether they have died of hæmoptœ, or have been taken off by some other disease.

C. Many phthisical persons do not experience the first attacks of hæmoptœ until the second or third stage of pulmonary Phthisis, which clearly shews that the Phthisis excites the spitting of blood, but is not caused by it.

There is still a question of importance to be discussed here:—When Phthisis shews

itself after pleurisy, hæmoptœ, chronic peripneumony, or even after a prolonged pulmonary catarrh, can we not, or ought we not, to presume that the Phthisis has been produced by the chronic inflammation of the lungs?

This question is of the more importance, since many able physicians have regarded pulmonary catarrh as the most frequent cause of Phthisis; and have even asserted that rheum, by the consequences it produces, destroys more persons than the plague.

In order to answer the question we have just stated, it is sufficient to call to mind the following facts:—

1st. I can assert, that of a thousand persons there is not perhaps one who dies of a chronic pulmonary catarrh uncomplicated. What has occasioned the protracted rheum to be regarded as a dangerous disease is this, that they have confounded with pulmonary catarrh different affections which are accompanied with some symptoms analogous to those of rheum. The affections which have misled them the most frequently, are Phthisis at the first stage, con-

sumptions much prolonged, chronic peripneumony, (*Obs.* 46) and lastly acute peripneumony complicated with chronic pulmonary catarrh. When the error in the diagnostic attaches to these two last complications it is easily rectified, provided the authors who have fallen into this error have given exact descriptions of the diseases they speak of: it is sufficient that we read the dissections they report. In spite of the kind of prepossession that the idea of a simple pulmonary catarrh has given them, they say the lung was hardened, carnified, rendered liver-like; or they employ other analagous expressions which designate the state of lungs affected with acute or chronic peripneumony, whilst in the simple chronic pulmonary catarrh the lung is not either carnified or hardened. we observe only a slight thickening of the mucous membrane of the air passages, which exudes a great quantity of mucous matter. This thickening and this mucous matter are very visible, whether it be in subjects which perish from simple pulmonary catarrh, or in those who, having a chronic pulmonary catarrh, become the victims of some other disease. (*Obs.* 48 & 49.)

2d. Numberless tubercles are observed in subjects who, having been ill only a few days, have died of peripneumony, (*Obs.* 3, 9) of pleurisy, of spitting of blood, (*Obs.* 4, 6) or of some other acute disease. (*Obs.* 1, 2, 5, 8, *&c.*)

3d. The lung is frequently found to be without ulceration or tubercles after chronic peripneumony, (*Obs.* 46) after chronic pleurisy, (*Obs.* 41, 42, 44, 45) after hæmoptoe frequently repeated, and after chronic pulmonary catarrh of the most obstinate kind. (*Obs.* 49.) These observations shew that if, in some analogous cases, the lung is tuberculous or filled with miliary granulations, it is because there were two diseases. Besides, in the instances of this complication, the tubercular disease might easily have preceded the inflammation. (*Obs.* 10 & 18.)

4th. Tubercular degeneracy being a very frequent chronic disease, which does not prevent other diseases, and which even produces some, it is not surprising that tubercles are met with in many persons who have had a chronic inflammation of the chest. For when an hæmoptoe, a pulmonary catarrh, a pleurisy,

a peripneumony, or any other inflammatory disease attacks an individual who has miliary granulations, or a tubercular affection of the lungs, the granulations and tubercles, by continually stimulating this organ rendered more sensible by a phlegmasy, contribute to keep up the inflammatory disposition. They render the inflammation chronic which ought to have terminated favourably in a few days; and amongst the inflammations which ought to follow a chronic course, tubercles make incurable or fatal the greater part of those which by a well-understood treatment might, without this deadly complication, terminate in a cure. In order the better to perceive this truth, we will examine the influence of tubercles and miliary granulations of the lung in cases of inflammation of the pleura, and we shall see how much more dangerous this inflammation is when it is complicated with a previous degeneracy in the organ of respiration.

Inflammation of the pleura in a slight degree is very common, since there is scarcely a dead body in which some adhesion of the lung with the contiguous parts does not occur. Besides, these adhesions, as all the world knows, arise

from inflammation alone. It is nevertheless rare that the slight degree of phlegmasy, sufficient for the formation of accidental membranes, is sufficiently intense to occasion the symptoms of pleurisy. This slight inflammation of the pleura easily gets well when not kept up by any particular cause. This is not the case if the lung be already affected with granulations or with tubercles, whatever be their nature and quantity. When this coincidence takes place, the inflammation of the pleura and the Phthisis have a reciprocal influence, and the patient dies. On opening the body, we find the pleura inflamed and the lung tuberculous. But we must not conclude from this that the pleurisy produced the tubercles; it only accelerated the progress of those which had a tendency to grow soft and to suppurate. We likewise see chronic pleurisies of long duration without tubercles in the lungs; (*Obs.* 41, 42, 44, 45) and meet with numberless tubercles in subjects where the pleurisy, though chronic, has not been of long duration. We may even affirm in general, that simple chronic pleurisy is commonly of very long duration; and when it is complicated with tubercles, death, as we have already mentioned, is more

rapid in proportion as the tubercles are more numerous. Lastly, in chronic pleurisies there are often tubercles in both lungs, though the pleurisy only affects one side of the chest; and frequently tubercles are most numerous on the side where the pleura was not inflamed; at other times there are no tubercles but in the lung of the side opposite to the pleurisy, (*Obs.* 43) or even there are tubercles in the mesentery as well as the lung. These facts prove that the developement of tubercles depends on a general diathesis, and not on local irritation.

5. The tubercular affection is very probably of a scrofulous nature, as M. Portal seems to me to have proved in his treatise on Phthisis Pulmonaris. Some other authors also are of the same opinion. Besides the scrofulous taint is a particular affection which is not the effect of any inflammatory state, not even chronic; and this degeneracy does not shew itself in those who are not scrofulous, even when they are affected with a phlegmasy either acute or chronic.

These different considerations appear to prove, that inflammatory affections are much

more rarely than is imagined the decided causes of Phthisis. Besides, as I have already said, if these inflammations occasioned this disease, the greater part of them ought to produce the ulcerous Phthisis; yet it is precisely the contrary, as I have constantly observed. It is always the tubercular Phthisis that is met with in examples which are adduced in favour of the production of Phthisis by acute or chronic inflammation. We have only to consult in the different treatises on Phthisis the facts relating to it, in order to be persuaded even to conviction, that these also, like those which I have observed, ought to be referred to tubercular Phthisis.

VI. Diseases of the Heart and Syphilis often accompany consumption of the lungs; but is it well ascertained that these diseases ever produce it? The facts cited in this respect do not appear to me sufficiently decisive to establish the affirmative.

CHAPTER VIII.

THE TREATMENT OF PULMONARY PHTHISIS.

THE treatment of Phthisis differs according to the species and degree of this disorder; and ought always to be adapted to the particular constitution of the sick, to the combinations which occur, and to the prevalence of this or that symptom. Many authors have traced out the conduct to be followed in many of these circumstances; but since they have not always accurately marked the numerous combinations of Phthisis, and have scarcely ever distinguished the species according to the nature of the general affection in which they mostly originate, it becomes necessary to indicate the

means which are suited to each species and each combination; in order to attain this end, I shall divide this chapter into four articles:—the first will comprehend the treatment of the disease; the second, the treatment of its combinations; the third, the treatment of the symptoms; and in the fourth I shall state the circumstances which determine among the different means those which are the most proper to be made use of; and endeavour to appreciate each according to its real value.

Article I.

TREATMENT OF PHTHISIS ACCORDING TO ITS DISTINCTION INTO SIX SPECIES.

It is sometimes very difficult, or even impossible, during the patient's life, to distinguish the species of Phthisis which, as the result of dissections, I have thought it necessary to admit. This difficulty of distinguishing many diseases of the same kind ought not to appear surprising, since it is sometimes even impossible to discover whether a patient, arrived at a state of marasmus, is affected with consumption of the

lungs or with some other chronic disease. The truth of this remark will strike any one on reading *Obs.* 39, 42, 48, 49, 52, 53; and many similar ones that occur in the work of Mons. Portal and other observers. Nevertheless, with the aid of the symptoms which I have ascribed to each species of Phthisis, and which will be found in almost every patient affected with it, it is possible in most cases to discover the nature of those we shall have to treat. But when this distinction is impossible, the obscurity of the diagnostic makes it much more difficult to discover and to fulfil the indications. In fact we cannot know with accuracy what the indications are in consumption of the lungs, until we have learnt to distinguish its species; since, as we shall see by and by, each species is of a different nature, and presents particular indications. Besides, it is impossible to treat a patient properly, unless the indications which the nature of the disease presents be accurately fulfilled. When we mistake the species of Phthisis we mistake also the true indication, for this is subordinate to the nature of the Phthisis; therefore we cannot treat the disease properly. If we do decide on a course of treatment, we act at random, and often lessen the chances of

cure or of relief the patient might have had if left to the aid of nature. What I advance as to the difference of treatment which suits each species of Phthisis, cannot be disputed: for can one hope to cure or to relieve, by the same means, cancerous and scrofulous affections? and is it proper to treat in the same manner Phthisis from calculi, and that which is the effect of an ulcer?

One cannot then investigate with too much care what is the species and what the real nature of the Phthisis which we have to treat; since it is essential, in order to enable us to decide upon a suitable treatment: and yet it has been very little developed by authors, for which reason I shall undertake the subject here.

In each of the six species of consumption which I have described, the affection of the lungs is of a peculiar nature, and belongs to an order of morbid alterations which does not develope itself exclusively in the organ of respiration. To be convinced of this, let us examine each of the diseases to which the different species of Phthisis may be referred. These diseases are tubercles, cancer, melanosis, calculi,

ıcers, and the developement of accidental cartilages.

Tubercular affections and cancerous diseases discover themselves, as we know, not only in the lungs, but also in almost all other parts. Calculous concretions also form in different organs; and those which are found in the lungs of consumptive persons appear of the same nature as the calculi, and collections of calcarious matter, which are seen in the articulations of some gouty persons. The melanosis is a peculiar degeneracy which affects the lungs, the liver, the mesentery, the intestines, and other organs. Ulcers may shew themselves in all parts, and most of them are connected with a general disposition. Transparent miliary granulations hold a connexion with the spontaneous developement of accidental cartilages; and these cartilages do not occur in the lungs alone, but also in the intestines, in the peritonæum, in the womb, in the heart, and in many other parts.

Such are the six general diseases which occasion as many species of consumption. We see that these diseases do not belong exclusively

to the lungs; that all differ in their nature, and that each produces a peculiar species of consumption. The resemblance of a great part of the symptoms of these different affections of the lungs arises from this, that in all it is the same organ that is injured; but there is in each species an union of the symptoms which characterise it. The diagnostic is not then impossible, and the resemblance of many of the symptoms ought not to restrain us from agreeing, that these alterations of the lungs are really diseases in their nature quite different. It would be absurd to regard melanosis as a degeneracy of the same nature with cartilaginous granulations. This is so evident, that one would not suppose there could be two opinions about it.

These considerations are extremely important with respect to the practice of medicine. In effect, to establish a rational treatment of Phthisis, it is above all things necessary to examine the peculiar diathesis which has produced the injury of the lungs, because often this injury is only a consequence of the general disease. Thus in the cancerous Phthisis scirrhi are sometimes found in different organs; and

in the tubercular Phthisis tubercles are frequently observed in various parts.

The treatment of Phthisis has for its object the preventing the attack of the disease, and combating it when it has manifested itself. In order to prevent it, it would be necessary above all things to remedy the general disposition which leads to it; and when the Phthisis has shewn itself, it is still in great part against this general disposition that we are to direct the curative means. But let us never forget that whatsoever the treatment may be that is made choice of, if it appears to give relief, one ought to dwell long upon it, and not administer it in such a manner that its effect would be only momentary; for in this last case we procure scarcely any advantage. This remark may be applied to a great number of cases in the treatment of diseases in general.

I shall exhibit here the treatment of the six species of consumption of the lungs, when they pursue their course in their simple state. But the complications of Phthisis with different accidental diseases, and the predominance of certain dangerous symptoms which arise

during the course of the disease, require modifications in the treatment adapted to the different species. In the second and third article I shall speak of these different modifications, and content myself with pointing them out. The most precise details upon the employment of the means of cure are to be found in particular Treatises on Phthisis, where may be seen even what it will be proper to do in each combination: for most authors have united under the same name, and as appertaining to one and the same species, the varieties and even combinations which present the same indications, and which require the employment of the same means. The reading of their works will not leave any doubt in this respect, when we shall have well considered the facts which I produce in these researches upon consumption.

Let us now cast a transient glance upon the general principles of the treatment which suits each species, and shew in a summary manner the particular means which are useful when we come to understand the nature of the consumption of which we observe the symptoms. I have traced in the 3d chapter the symptoms and the course of each species of Phthisis,

which I need not revert to here. But I shall develope with more detail the intimate nature of each of the species.

I. Treatment of the Tubercular Phthisis.

This disease is in its nature scrofulous—is often hereditary. We must endeavour to prevent it in those who have a long narrow chest, high shoulders, very long neck and thick lips. But when persons, born of scrofulous parents, have even a well formed chest, they cannot be considered quite secure from hereditary Phthisis if any of their family has died of tubercular consumption. They ought equally, with those with narrow chests, to be subjected to the rules of health, with a view to prevent the effects of scrofula; and in the treatment of even their slightest complaints, we ought never to forget that they have a scrofulous taint and predisposition to Phthisis: we shall by this means often save them from this terrible disorder. If these means fail, we proceed the moment the first symptoms of Phthisis shew themselves to prescribe the particular remedies adapted to the seat of the disorder, besides

those required by the scrofulous taint. I shall lay down this treatment in the 4th article of this chapter; but I ought to remark here, that the tubercular Phthisis being the most common species, the treatment adapted to it is also the best known: it is that which is obscurely directed in most of the treatises on this disease. As to the modifications to be adapted to the different combinations, or to the predominance of certain dangerous symptoms, I shall treat of them in the second or third article of this chapter.

II. Treatment of Granular Phthisis.

The Granular Phthisis appears connected with the developement of a great number of small cartilaginous bodies. Medicine can no more destroy these accidental cartilages than those which develope themselves in other parts. Usually, bodies of a cartilaginous nature give little trouble; most of them pass to the state of bone and occasion hardly any disorder. But it is not so with those which develope themselves under the mucous membrane of the air vessels, and under that of the

alimentary canal: they are often the cause of death, like the cartilages which form at the orifices of the heart or within the womb. The miliary granulations of the lung, at least when they are not in very small numbers, induce obstinate coughs, chronic pulmonary catarrhs, spitting of blood, ulceration of the lungs, marasmus, hectic fever and death.

So soon as the physician perceives any symptom which announces the developement of these miliary granulations, he ought to neglect nothing that will retard their deadly consequences. With this view he endeavours to prevent or to moderate the alteration that these cartilaginous bodies occasion in the organ of respiration, and he palliates the symptoms that he cannot remove.

From the nature of granular Phthisis, it requires in all its stages, and above all in its commencement, the use of composing, emollient, narcotic, and such medicines as will remove the internal action to the surface.

Recourse must be had to blisters, issues, pediluvium, and sometimes to bleeding.—

Whey, ass's milk, veal or fowl broth, and other remedies of the same sort may be administered. But there are none more advantageous than those which diminish the excitability of the lungs. I have employed in this view, with the greatest success, the extracts of hemlock, henbane, nightshade, and aconite, either alone or combined with one another, and sometimes with opium. I have thus appeased the cough and diminished the alarming symptoms. But when catarrh, Phthisis, or hectic fever is already manifest, these last medicines are insufficient. We derive great advantage then from diluents of which I have already spoken, and from revulsives. These means are necessary in order to retard, as much as possible, the progress of these complaints, all of which may become fatal, without excepting even the chronic pulmonary catarrh, which reduces the patient by the abundant expectoration it occasions. In this symptomatic catarrh, as in the essential chronic pulmonary catarrh, the best effects are produced by resinous and balsamic medicines, which are too frequently lavished with blind confidence in all the species and in all the stages of Phthisis.

III. The Treatment of Phthisis with Melanosis.

This species occurs usually at an advanced age. It is incurable; but it is often not painful, and its course is sometimes extremely slow. It seems that a great part of those whom it destroys, die from loss of strength and the marasmus, which are sometimes the consequence of the hectic fever, and sometimes of the debility of the digestive organs, and sometimes of abundant expectoration and the want of rest. In the treatment of individuals affected with this species of Phthisis, their lives are prolonged by the judicious and alternate use of anodynes, analeptics, tonics, and bitters: by cinchona, catechu, gentian, lichen islandius, opium, animal or vegetable jellies; and by avoiding every thing capable of causing fresh irritation in the diseased lung. It is necessary, above all, to prevent excess in coffee, wine, and spirituous liquors. These drinks continue to keep up the indigestion, sleeplessness, and hectic fever. Though we ought not altogether to proscribe the use of them, we ought carefully to limit it; seeing that a great part of these patients have a

decided inclination for such exciting things as appear to give them force, and for some minutes to restore them to health.

IV. Treatment of the Ulcerous Phthisis.

This disease is of the same nature as other ulcers, and requires the same general treatment. If the ulceration of the lung was not kept up by a local cause, or by a general diathesis, it is probable that it would not be incurable; for it is well known, that when ulcers of the lungs are not kept up by such combinations, they heal spontaneously. It is on this account that issues are so easy to heal up; they have such a strong tendency to cicatrise, that it is sometimes impossible to keep them open. If a great part of the ulcerations of the lung do not heal, it is not from the motion of this organ, since motion does not prevent the healing of wounds of the lung produced by an external cause; and I have even found a musket ball inclosed in an accidental cyst, and situated in the middle of a sound lobe. We must then look for the cause of the obstinacy of ulcers of the lungs in some peculiar taint; and it is this universal or local

taint that we ought to attack above every thing. We judge of the nature of the ulcer by the general state of the patient and by the expectoration; and from this examination decide upon the choice of the general means which it will be proper to employ. Nevertheless we must not altogether neglect the local treatment; and since we cannot apply any topical remedy, may try to make the patient respire medicated vapours, aerial fluids, and an atmosphere adapted to the presumed nature of the ulcer. We ought besides to prescribe repose, or moderate exercise, and very light food in small quantity. If the ulceration of the lung appears extensive, it will be proper to employ the strongest revulsives, and to establish very large drains externally.

V. Treatment of Calculous Phthisis.

Though pulmonary calculi are formed in most cases by the phosphat of lime, one cannot affirm that all are of the same nature, because analysies made even to the present time have not been sufficiently repeated.

Besides, whatever may be the composition of these concretions of a cretacious appearance, we do not know as yet any medicine that will deliver the patient from them, any more than other calculi which develope themselves in different organs: perhaps we never shall know. The calculous Phthisis then is incurable; and it must become fatal whenever there is a great quantity of this calculous matter in the lungs. But we may always be of service to persons affected with this formidable disease: we may sometimes retard their death, and almost always diminish their sufferings. To attain this end, it is proper to adopt a similar treatment to that in granular Phthisis. We may perhaps derive some advantage from the different medicines indicated by the chymical character of the calculi expectorated.

VI. Treatment of Cancerous Phthisis.

This species of Phthisis is of the same nature as other cancers. It is then evident that it ought to be treated by medicines which seem best adapted to the cure of scirrhi, or

rather to impede the progress of cancerous diseases. Amongst these we count principally the extracts of wolf's-bane, of henbane, of hemlock, of nightshade, of poppy, and a great many others which it would be superfluous to speak of here, since we may consult, in this respect, many works where the treatment of cancerous affections is carefully laid down.

Article II.

TREATMENT OF THE COMPLICATIONS OF PHTHISIS.

In order to treat consumption in a suitable manner, whatever may be the species, it is not always sufficient to attack the general diathesis by which the injury of the lungs is excited. It is also necessary to relieve the accidental complications which accelerate the progress of Phthisis, and may even cause sudden death.

Among these complications some, as eruptive fevers and spitting of blood, happen above all at the commencement of the disease; others, as pleurisy and partial inflammation of the lung, arise principally in the second or third

period, and even when the Phthisis has arrived at the last degree. The complications which it often becomes indispensable to attack, are—

1. Acute Eruptive Diseases.
2. The Suppression of Cutaneous Diseases.
3. The Acute Pulmonary Catarrh.
4. The Chronic Pulmonary Catarrh.
5. The Hooping Cough and some other convulsive affections.
6. Hæmoptysis.
7. Partial Inflammations of the Parenchyme of the Lungs surrounding the local alterations which cause the consumption.
8. Inflammation of the Pleura.

Let us survey these different complications, and examine the means by which we may diminish the dangers they induce.

I. In the treatment of Acute Eruptive Diseases which happen to phthisical persons, it is proper to moderate inflammation during the continuance of the cutaneous phlegmasia. When the eruption has passed through all its degrees, it becomes necessary to combat the pulmonary irritation if it continues, which

it usually does. We are then obliged to make use of bleeding, diluents, baths, and even blisters, purgatives and opiates. These different means become often indispensable, particularly at the end of measles, scarlet fever, and some other affections of the same sort.

II. When a chronic Cutaneous Disease has preceded Phthisis, or occurred during its course, we must keep the eruption out, or recall it to the surface if it has struck in, and provide a substitute on its disappearance. If we cannot make it re-appear, issues, sudorifics, bitter-sweet, hydro-sulphurous waters, &c. and other medicines adapted to the treatment of cutaneous diseases, become useful in the cases we are treating of.

III. Rheums, or Acute Pulmonary Catarrhs, which are complicated with consumption, ought to be attacked with particular care; for they accelerate in a singular manner the progress of tubercles seated in the lungs; and they occasion them to pass into a state of suppuration long before the period at which the disease, if uncomplicated, would have produced that deadly result. These rheums are to be cured

by the known means, combined with the particular remedies necessary for the Phthisis with which they are complicated.

IV. Chronic Pulmonary Catarrh is often enough united with Phthisis, and this complication requires exciting and tonic medicines: but it is necessary to make a choice according to our knowledge of the state in which we find the patient. When this complication is met with in very irritable subjects, and such as are disposed to inflammation from the slightest causes, we may combine with advantage opiates with bitters and tonics. The mucilage of lichen islandicus, and sirups made with this substance united to sudorifics, become very suitable, as well as other similar medicines. But if the too great excitability of the patient do not forbid it, we shall derive much more advantage still from resinous and balsamic medicines, such as turpentine, balsam of tolu, balsam of capivi, sirup of tolu, the balsamic pills of Morton, the balsam of Locatelli, &c.

V. Hooping Cough, and other convulsive affections also merit particular attention. —It is here that antispasmodics become

sometimes indispensable, as well as opiates, and in certain cases vomits and purgatives. These evacuants act ordinarily in a very marked manner as revulsives. But when the convulsive disease is connected with a spasmodic state of the heart, there is nothing which produces such good effects as the digitalis purpurea.

VI. Spitting of blood, sufficiently frequent in phthisical persons, requires the care that is mentioned by every author who has treated on Hæmoptysis connected with phthisical disposition. We usually employ bleeding, refrigerants, blisters; and, towards the end, it is sometimes of advantage to prescribe slight astringents, such as the juice of nettle, the sirup of quinces, &c.

VII. Often enough in the lungs of phthisical persons Partial Inflammations surround the local alterations which constitute the germ of Phthisis. When this complication takes place, the patient experiences one while pain at particular points, at another time a sense of oppression, heat, undefinable internal uneasiness; the pulse rises or becomes tense and firm; often the countenance becomes more

animated and the strength is depressed. To remedy this complication, we suspend the treatment of Phthisis or modify it, and at the same time make use of the means calculated to subdue the inflammatory affection which is complicated with the disease. It is then that bleeding, leeches, diluents, whey, veal and chicken broth become proper, as well as the other means made use of against inflammations which manifest themselves in individuals endowed with a feeble constitution, or affected with a chronic disease.

VIII. Inflammation of the Pleura, more or less extended, also often occurs to aggravate the sufferings of consumptive persons. Local pain ordinarily discovers this inflammation; and when this pain does not take place, which happens not unfrequently, we nevertheless see a great part of the other general signs which indicate the phlegmasiæ. The pulse, the heat of the skin, the colour of the face, the sudden diminution of strength, &c. serve to shew the state which it is sometimes indispensable to combat, even in the third degree of Phthisis, by bleeding leeches, blisters and other similar topics. I have seen subjects who appeared at the brink

of the grave, and yet have lived many months with the assistance of these aids prudently administered. It is principally in these inflammatory complications that it is proper to subject the patient to a restricted diet for a long time, and to the use of the antiphlogistics recommended in these cases by different authors.

Article III.

TREATMENT OF SYMPTOMS.

When these dangerous complications are dissipated, we resume the treatment of the disease; but too often Phthisis, uncomplicated, follows a deadly career, and becomes fatal in spite of every thing. The physician still may be very useful even in these desperate cases. He does not effect a cure, but he diminishes the severity of symptoms, which, left to themselves, become so violent as to abridge the life of the patient, and make his latter days frightful.

The symptoms which it is sometimes necessary to combat in the different degrees of Phthisis are—

1st, Fever; 2d, Cough; 3d, Want of Sleep; 4th, Spitting of Blood; 5th, Pains in the Chest; 6th, Night Sweats; 7th, Vomitings; 8th, Aphthæ; 9th, Diarrhœa; 10th, Oedema.

Amongst these symptoms, some are dangerous principally in the commencement, others are most formidable in the last degree of the disorder. But there is not one of them which may not produce a speedy death, when it acquires too great intensity; and it is in moderating the severity of these predominant symptoms, that we diminish the sufferings of the patient, and sometimes prolong his days until he arrives at the last degree of consumption.

I. Treatment of the Fever.

When the fever is very violent, if there is any complication, we moderate the fever by attacking the complication. When the fever depends only on the progress of the Phthisis, it is proper to enquire if the exacerbations commence with or without shivering. In the first case, we succeed sometimes in moderating the fever by employing extract of cinchona, of

gentian, of centaury, of orange leaves, and even by cinchona in substance; and frequently succeed in stopping the shivering which attends the paroxysm. If the fever is violent, and without shivering at the beginning of the exacerbation, we must vary the treatment according to the idiosyncracy of the individual. I have often seen it much diminished by the use of baths and mild expectorants, and in other individuals by tonics and opium. We determine upon one or other of these means, according to the general state of the patient.

II. Treatment of the Cough.

When the cough arises from the necessity of expectorating the matter secreted, it would be dangerous to stop it. But often it is owing to an excess of excitability, and a convulsive disposition, &c. It then produces sometimes violent fits of coughing, which threaten to suffocate the patient, even when there is scarcely any expectoration; at other times the cough occasions almost constant vomiting.

Pills of horehound, extract of henbane,

or of nightshade, and sometimes antispasmodics, such as musc and assafœtida, may moderate this cough, which in other patients gives way only to mild mucilaginous broths, such as veal-tea, &c. &c. I cannot shew with precision which of those means it is proper to employ in every particular case; for I have seen patients who seemed altogether in the same state, and endowed with a similar constitution, who nevertheless were not relieved by the same means. I ought only to observe, that when we have made choice of a medicine, if it produce a diminution of the cough, we ought to continue it a long time; for if we abandon the use of it too soon, the cough is not long of returning.

III. Treatment of the Want of Sleep.

If the want of sleep is the effect of some other predominating symptom, we cannot put an end to it but by attacking the symptom which occasions it. But when it is independent of other symptoms, it is proper to combat it by such means as the general state of the patient may suggest; and we moreover give the

extract of opium, or the syrup of poppies, or some other preparation of opium. But it is proper to use narcotics only every other day; for otherwise, if the patient is already constipated, they frequently augment the constipation, or else produce copious sweats or some hurtful effect.

IV. Treatment of Spitting of Blood.

We are not treating here of hæmoptysis, it being rather a complication than a symptom. The spitting of blood we speak of consists in the expectoration of certain threads or drops of blood, which tinge the sputum at different times of the disease. This formidable symptom may bring on hæmoptysis if it be not combated. We may often remedy it by the use of orangeade or weak lemonade, and sometimes by a small quantity of eau de rabel mixed in the drink. Nevertheless, when the pulse is full, hard, tense and quick, leeches, and even the lancet may be indispensable, especially if the patient has previously had dangerous hæmoptysis. When, on the contrary, the blood is very liquid, and the pulse feeble or soft, blisters upon the breast are useful.

V. Treatment of the Pain of the Breast.

When there is even no inflammatory complication evident, some patients experience at the top of the sternum, or in other points of the chest, pains almost intolerable, which present themselves under different forms; one while it is a burning heat, at another a sharp smarting or a painful gnawing; sometimes it is a fixed and piercing pain, or a sense of constriction to a great extent. These different symptoms may often be combated with success by the use of topics; we have seen them give way to the application of oats boiled in vinegar, and to volatile liniment; at other times they are quieted by emollient fomentations, or narcotics, or by camphorated or opiate liniments. Æther, applied externally, or even given internally, stops them in some persons, especially when the pain occurs in the form of constriction, which almost stops the breath. At other times we succeed in quieting them by the aid of orangeade, or linctus slightly opiated.

VI. Treatment of Night Sweats.

The sweats of phthisical persons become sometimes so abundant, that they throw the

sick into a state of exhaustion: nor are we always so happy as to remedy, though we are able sometimes to moderate them. We give with this view drinks slightly acidulated, and sometimes slight astringents. Lozenges of agaric, in a dose of two grains, have been recommended; sometimes bitters have succeeded when the stomach is out of order. I have seen night sweats which were very copious cease almost entirely after some baths that I had advised for patients where the pulse was sharp, tense, and frequent, and who besides felt troublesome pricking of the skin.

VII. Treatment of Vomitings.

Vomitings are frequent with phthisical persons, and often arise from severe fits of coughing. At other times they are produced by a sympathetic irritation of the stomach, from the great quantity of glairy, insipid or acid matter, or of yellow and bitter bile. It is of little use to attend to this symptom when it does not produce much fatigue: but if it deranges the stomach and destroys the appetite, it must be relieved. Slight

purgatives, and a drink made from dog-grass acidulated, serve to stop the reflux of bile into the stomach. Absorbents are of use to destroy the acidity when it prevails. Bitters and tonics will diminish the glairy and insipid mucous secretion; but I do not know of any thing which invariably succeeds. Antispasmodics do not in general produce any effect against the vomitings which arise from the cough: as for the rest, when we have moderated the cause of the vomitings, we ought to endeavour to prevent their return by the use of food which the patient can easily digest. After many fruitless attempts we sometimes find this out; but it is by the instinct of the patient, rather than our art.

VIII. Treatment of the Aphthæ.

When we perceive the first symptoms of the eruption of aphthæ, we prescribe the decoction of barley combined with honey and the syrup of mulberries, or acidulated with sulphuric acid. But this will not answer when the mucous membrane is excoriated and very painful. No medicine is then preferable to

softening and narcotic gargles. At last, when the pain has ceased, we have sometimes recourse to detersive gargles. But we should always be regulated as to the choice or continuance of gargles, by the degree of sensibility of the parts where the aphthæ are situated.

IX. Treatment of the Diarrhœa.

Diarrhœa is one of the symptoms which is most distressing to the patient, particularly in the last stages of the disorder. Whatever is the cause of this diarrhœa, it is called *colliquative* when it brings on emaciation, of which the progress is frightfully rapid. It has been thought that this flux was the effect of a melting of the solids; but it depends almost always on ulceration of the mucous membrane of the ileum, and sometimes also of that of the large intestines. We have seen *(p. 62)* that in 100 consumptive, 67 had these ulcerations. It is useless then to have recourse to a pretended melting of the solids for an explanation of this diarrhœa. We moderate it sometimes by means of narcotics and other composing medicines; but it is irritated by astringents and tonics.

Sometimes also the obstruction of the mesenteric glands, frequent enough in the tubercular Phthisis, especially in young subjects, produces the colliquative diarrhœa, which, as we know, is one of the symptoms of an atrophy. Neither astringents nor tonics are of service in this case, any more than those medicines which are very mucilaginous.

But there are phthisical patients who have diarrhœa without ulceration of the intestines, and without enlargement of the mesenteric glands. It is in this case that we sometimes perfectly succeed with tonics and astringents, and even with narcotics and emollients: we have also seen the decoction of simerauba and the confectio opiata succeed with many patients. Others have been relieved by a suitable dose of the eau de rabel, with which their drink was acidulated.

X. Treatment of the Œdema.

Though the œdema of the legs, arms, and thighs be not a painful symptom, it alarms patients very much. It frequently shews itself,

at different periods, long before death, in those who labour under Phthisis with melanosis. I have seen the symptom many times removed in the same patient by the use of diet drink, of dog-grass with nitrate of potash. When these become insufficient, it may yet give way to the long continued use of oxymil of squills, with diuretic diet drinks. In cases of Phthisis with melanosis, the same as in cancerous Phthisis, squill medicines do no harm, for almost always the sick have but little excitability. I have seen some individuals in whom Phthisis appeared complicated with an aneurism of the heart, and where life seemed to be in imminent danger. When diuretics do not seem to produce any effect, or that they cannot be employed because they increase the phthisical symptoms, I have been able to prolong the patient's days by ordering, from time to time, small punctures in the legs; a great quantity of liquid was discharged by this means, and the patient seemed to rally for a while.

Let us now take a transient view of the principal means employed in the cure of Phthisis.

Article IV.

DETERMINATION OF THE CIRCUMSTANCES THAT DECIDE IN EACH PARTICULAR CASE, WHICH OF THE MEANS PROPOSED AGAINST PHTHISIS ARE THOSE THAT IT IS PROPER TO EMPLOY. —APPRECIATION OF THE PRINCIPAL MEANS.

Phthisis is almost always incurable and fatal; but it is often confounded with other diseases, some of which are easily cured. These cures have occasioned the belief, that phthisical patients arrived at the third degree have been cured: hence the infinity of remedies recommended with confidence in Phthisis; hence also the astonishing success which some persons persuade themselves they have obtained by means diametrically opposite. We shall not occupy ourselves here with the crowd of infallible receipts treasured up in different collections: we shall speak only of the means proposed or employed by intelligent physicians. These are very numerous: we shall say a few words on each. Every thing concerning them may be pursued in detail, in excellent treatises *written professedly* on Consumption of the Lungs.

As tubercular Phthisis is the most common species, many authors have directed it to be treated much like scrofulous affections. This treatment is well adapted to prevent the tubercular Phthisis, and to combat it in its first periods. It is thus that great benefit has been derived from horse exercise, from travelling, from walking or taking a voyage, from declaiming, from generous wine taken moderately, from antiscorbutics, bitters, alkalis, alkalin carbonates, muriate of barytis, chalybeates, &c.; but the medicines which have been recommended above all, are wild horseradish, scurvy-grass, cress, cinchona, gentian, senega, carbonate of soda, chalk, muriate of ammonia, &c.

All these remedies are more or less useful for preventing tubercular Phthisis, particularly when we assist their action by a good regimen and strengthening food, principally chosen from animal substances containing much extractive matter, such as beef, mutton, hare, pigeon, &c. But when the first symptoms of this disease shew themselves, we can sometimes mitigate them, or even stop them for a long time, by continuing the exercise, tonics, bitters, antispasmodics; at the same time that we prescribe

the repeated use of vomits, and sometimes even of bitter purgatives at distant intervals. Voyages are still very useful at this period, when declaiming would be hurtful.

But too often the symptoms of Phthisis resist the use of these means: then the sulphurated mineral waters are sometimes successful; such as the waters of Bonnes, of Cauterets, of Bagneres, of Mont-d'or, &c. When taken on the spot, we know how useful these waters are in subduing scrofulous affections: but these waters, which are of service in the first periods of Phthisis, become pernicious in the advanced stages of the disorder. They are even dangerous at all periods, when there exists a state of plethora or an inflammatory complication.

In degrees of Phthisis where we cannot make any further use of tonics, antiscorbutics, or very active bitters, we may still prescribe such of these medicines as have less energy; or we may combine the bitters with substances which diminish their activity: we may order the syrup of cinchona, the jelly of Iceland moss, the infusion of young oak.

When there is a syphilitic or tettery complication, or some other cutaneous disease, we employ with success different active preparations capable of combating the complication which aggravates the disorder; and thus we sometimes weaken it extremely, and retard its course, so as to restore to society for many years persons who appeared doomed to a speedy death. It is in these cases that we have succeeded in administering sulphur, kermes mineral, or other antimonial preparations; bitter-sweet, sudorific diet-drinks of sarsaparilla, guaiacum, China, sassefras, corrosive sublimate, and many other substances which fulfil these indications.

A great number of chronic diseases appear to give way to the prolonged use of some very active medicines drawn from vegetable poisons. Great part of these medicines, which may be progressively carried to a very strong dose, seem to shackle the progress of these diseases by blunting, in some sort, the organic sensibility. By thus diminishing the excitability of the organs, we prevent the circumstances which cause cartilaginous granulations, scirrhi, calculous concretions, &c. Much

advantage has also been derived from the judicious use of hemlock, wolf's-bane, henbane, nightshade, foxglove, water-fennel, &c. I have succeeded in suspending for a long time the cough occasioned by miliary granulations in the lung, by giving some one of these medicines, of which the dose was gradually augmented. I have sometimes given these separately, and at others I have combined many of them together; but they do not produce any effect at the end of the first, or at the second degree of tubercular Phthisis. I have employed without effect the purple digitalis in persons affected with incipient tubercular Phthisis; but this medicine, of which I have gradually pushed the dose even to 40 grains, has appeared to produce good effects in different species of Phthisis, and even in tubercular Phthisis, in very irritable subjects, where the pulse was very frequent. It produces a sort of revulsion in acting upon the stomach; and either by its sympathetic, or some other effect which I do not understand, it diminishes the excitability of all the organs, and usually lessens the pulse. It also succeeds very well in palpitations of the heart, and in cases of aneurism of this viscus.

In some persons, when Phthisis is about to appear, the general diathesis, before exercising its ravages on the lungs, shews itself by producing in different organs, and even in the chest, symptoms which excite apprehensions founded upon the issue of such vague and variable phenomena. Revulsives then are usually serviceable, and we prevent the fatal issue sometimes by employing blisters, moxa, issues, setons, whilst we combat besides the general diathesis we have observed.

When Phthisis discovers itself by its first symptoms, the patient, with the plumpness and freshness of youth, is in a plethoric state, or very liable to partial inflammations of parts that are frequently irritated. If we do not combat this disposition, tubercles, miliary granulations, calculous concretions, or other affections of the lungs, establish there a centre of pernicious irritation, insomuch that many small partial inflammations also soon betray themselves. We prevent these dangerous consequences, or at least we moderate them, by bleeding, by leeches, by evacuents, by diluents, such as broth made of chickens, calf lights, turtle, snails: we use asses, cows, or goat's milk, veal-tea,

whey, lubricating expectorants, linctus's, &c. Narcotics cannot be used at this period without very great circumspection.

In chronic pulmonary catarrhs, which resemble Phthisis, and in those which are complicated with it, when there is not too much quickness in the pulse, we obtain good effects from resins and balsamics. It is in cases like these that we derive benefit from tar-water, the buds of pine and fir, St. John's wort, ground ivy, the balms, resins, gum-resins, the balsamic pills of Morton, the balsam of Locatelli, &c. Nevertheless if the original disease is tubercular Phthisis, we cannot long continue these remedies, except when the lungs contain very few tubercles.

In speaking of the treatment of Phthisis, we have mentioned the species in which we may recommend fumigation and the use of factitious air; but we have recourse to them sometimes in all the species of Phthisis, when there is a local indication to be fulfilled; we are however to remember that their healing virtues have been much exaggerated.

The common warm bath, as also bleeding, and the medicines which diminish excitability both general and local, such as mild expectorants, whey, &c. are proper at different stages of Phthisis, and in its different combinations. Nevertheless we must only regard these as palliative means, upon which we ought not to calculate too much in the way of cure.

Besides, whatever be the species of Phthisis and whatever be the degree at which it is arrived, we are obliged often to vary, combine, or modify the treatment. There is not one of the remedies we have mentioned that may not sometimes be employed with success to stop the progress of the disorder, when we can no longer hope to cure it. At all times, when there is no particular contra-indication, nothing is more serviceable than horse exercise, walking, change of air, travelling, &c.: these means sometimes prevent Phthisis, and even when it has shewn itself they may materially retard its progress.

When a new remedy is made use of, we cannot be too much on our guard against the false conclusions that unexpected success may

give rise to. All those who appear consumptive are not so; and of those who are, many live a long time. This long duration of certain consumptions ought not to surprise us after what has been shewn above. The injury of the lungs being sometimes neither serious nor very extensive, there are, as we have mentioned, cases in which the disease seems at a stand, though it continues at a moderate degree for many years. We do not cure it, notwithstanding the most rational treatment; but it does not grow worse. It appears in these circumstances, that the ulceration of the lungs is circumscribed in such a manner, that the disease becomes local, and performs the office of an issue; but this happy occurrence is the effect of nature, and not of art: we must not deceive ourselves in ascribing it to our remedies. We can only infer from it, that we are not always to despair of the life of consumptive patients, even when the disease is incurable.

There remains nothing important for me to say on the treatment of Phthisis, on its complications or its symptoms, or on the proposed method of cure. I have only pointed

out in a superficial manner what ought to be done in the different circumstances, because authors have shewn very much in detail the manner of employing the different curative means I have spoken of. It was alone necessary for me to decide in what species, what complications, and for what symptom it is proper to employ one or other of these means, since there is not one of them that has not been recommended by practitioners of great merit.

CHAPTER IX.

PARTICULAR OBSERVATIONS.

THE observations contained in this chapter have for their object to discover—1st, the state of the lungs in the different periods of Phthisis, (*from Obs.* 1 *as far as* 18.)—2d, the difference in the nature of the alteration of the parenchyme of the lungs in the different species of Phthisis, (*from Obs.* 14 *to* 37.)—3d, the existence of certain latent Phthisies which take on the appearance of other diseases, (*6th Section & Obs.* 38 *and* 39)—4th, the soundness of the substance of the lung in cases where a part of this viscus appears at one time ulcerated, at another totally destroyed, (*from Obs.* 40 *as far as* 45.)—5th, what the injury of the lung is in chronic peripneumony, (*Obs.* 46.)—and in the inflammatory affection designated under the name of

infarction of the lungs, *(Obs. 47.)*—6th, in what state this viscus is found in persons affected with chronic pulmonary catarrh, which puts on the appearance of Phthisis, *(Obs. 48 & 49)* —7th, the possibility of curing different diseases with symptoms resembling those of consumption of the lungs arrived at an incurable degree. *(Obs. 50, 51, 52, 53, 54.)*

In order to confirm the several doctrines which I have endeavoured to establish in this work, I shall be obliged to relate a great number of cases either in Phthisis or chronic pleurisy, or other diseases. But I shall avoid exhibiting two facts entirely alike; and as the reading an account of cases produces a monotony which necessarily wearies the attention, I shall arrange the particular histories under different titles, and place reflections at the end of many of them. This chapter will thus divide itself into eight sections, each of which will be composed of an assemblage of facts analogous to each other, but very different from those placed under another title. The first section comprehends observations relative to the four periods of Phthisis, and includes examples of the two first species of this disease. The second section

contains facts relative to Phthisis with melanosis. In the third are comprised the histories which refer to ulcerous Phthisis. Fourth section contains those on calculous Phthisis; fifth, those on cancerous Phthisis; sixth, those on Phthisis arrived at the last degree, without presenting the union of the pathognomonic symptoms of Phthisis. Seventh section includes six particular histories of chronic pleurisy, intended to shew how the disease differs from consumption of the lungs, with which it has been so often confounded. Lastly, we shall find in the eighth section many observations calculated to shew accurately the lesion of the lungs in the two varieties of chronic peripneumony, and the state of the viscus in cases of chronic pulmonary catarrh, which put on the appearance of Phthisis, and which terminate sometimes in death, but more usually in recovery.

First Section.

STATE OF THE LUNGS IN THE FOUR PERIODS OF TUBERCULAR, AND ALSO OF GRANULAR PHTHISIS.

We have seen in the fifth chapter, that it was principally in the tubercular and in the

granular Phthisis that I had been able to observe the state of the lungs in the four periods. It is on that account that I shall place in this section the histories which concern these two species.

In order to separate clearly the observations which belong to the different periods, I shall divide the section into four articles. Each of them will comprehend observations relative to one of the periods of the disease ; and as nature proceeds by shades from one to the other of these degrees of Phthisis, I have almost always indicated this progression by placing in each article—first, the histories which belong to the commencement of the period, and at the end those which form the transition from this to the following period.

Article I.

First period.—Observations on occult Phthisis, or the germ of Phthisis.

I shall relate in this article six observations on the germ of Phthisis. We shall see here encysted tubercles *(Obs.* 1 & 5*)* of various size, unencysted tubercles *(Obs.* 3*)*,

miliary granulations (*Obs.* 2 & 4); and these various affections one while insulated (*Obs.* 1, 2, 3, 4, 5), at another combined (*Obs.* 6) in the same person. Again, I might mention at this period of Phthisis, the observation that I have inserted in remarks on Tubercles. (*Journal de Med. Chirurg. and Pharm. tome vi, p.* 43, *Germinal, year XI.*)

1st Observation.

First period.—Tubercular Phthisis in an occult state, or which hitherto nothing had detected—Lungs full of tubercles—Death from an attack of irregular intermitting fever.

A cook, 20 years of age, middle sized and of a strong constitution, having all the plumpness and all the freshness of health and youth, was admitted at the Charité, the 13th September, 1806. Her disease had commenced one month before by a sudden suppression of the catamenia, in consequence of a great fright. From that time she had always had colic pains which prevented her from working, and which at length obliged her to enter the hospital.

She had enjoyed very good health up to her 20th year: she was not married, and was of perfectly correct conduct, according to the testimony of the person who placed her in the hospital.

Two days after admission, she was seized with an irregular intermitting fever. The attacks commenced with violent rigor, which was followed by a burning heat and sweating often very profuse: they returned in the afternoon sometimes every day, sometimes every two days; and the pulse was usually rather frequent in the intervals. In spite of all these symptoms, and the continuance of colic pains, the patient did not grow thinner; but her complexion became of the pale yellowish colour which we see in persons affected with intermittent fever. She was ordered to take bitters.

At the end of September this girl was still troubled with colic and was oppressed. Nevertheless she appeared much better. Her pulse was no longer frequent between the attacks of fever, which were more distant. The appetite was sufficiently good.

Towards the 10th of October she began again to have the pulse very frequent, even in the intervals of the attacks; and from that time, though she did not grow sensibly thinner, she had still great frequency of pulse: the attacks of fever returned in an irregular manner. The colics were frequent, but there was no diarrhœa: she did not complain of any pain at her stools, or in making water. Towards the middle of October there came on wandering pains in the breast and a violent cough, which occurred in the night time only, and which was not succeeded by any expectoration: the appetite continued. The 24th October this patient was not yet grown thin, nor did she regard the cold: she took a pectoral diet drink and bitter decoctions. From the 25th to 29th October she was nearly in the same state; only she was chilly, had more oppression, and said she perceived herself worse. The 29th she eat still her half portion; she was up all day as usual, but she kept near the fire and said she felt herself very uneasy: she went to bed at nightfall very much oppressed. She was seized suddenly with an attack of fever: the shaking was of long duration; the

whole frame was chilled, and she died unexpectedly at midnight on the 29th of October.

Opening of the Body.

The body was remarkably plump and fresh.

Head.—All was sound within the skull, which was carefully examined.

Thorax.—In their whole extent, the lungs adhered to the adjacent parts by means of loose cellular flakes. They were crowded throughout with miliary and lenticular tubercles, firm, of an opake white, greyish or yellow; and the pulmonary parenchyme was firmer and redder than in the natural state round many of the tubercles, of which none were as yet in a state of suppuration. The heart was sound.

Abdomen.—The liver adhered to the peritonæum by a number of accidental cellular flakes; its colour was deep and nearly black; it was of a soft consistence. The spleen was large, very brown and firm.

The stomach, which was sound, contained still the liquids which distend it. The omentum was ulcerated, and presented threads and membranous shreds of various lengths and thickness. It contained but little fat; there was a blackish tumour at its lower extremity, hard, granulated, of the size of a nut, and evidently tubercular.

The small intestines were of a reddish colour.

The womb was sound, and the two ovaries formed each a hard unequal tumour of a blackish red on the outside, of a greyish white within, presenting a granular suppuration: the ulceration was even visible upon a part of the external surface. The vagina was reddish; the hymen entire, and pierced by a very small opening.

The bladder adhered very intimately to the anterior surface of the womb. Its internal membrane had a deep brown red colour; it was covered with tubercles pretty much crowded together, of a miliary or lenticular size, and whitish internally. Those which were already

suppurated and ulcerated in the centre, resembled aphthæ.

Reflections.—We see that this girl died in an attack of intermittent fever. The pains she perceived in the belly proceeded from the disease of the ovarium, or of the peritonæum, or its duplications. It is astonishing that there should be no pain in the bladder, which, as we have seen, was so much injured.

If an unexpected death had not terminated this girl s life, who gave no manifest signs of an affection of the lungs till towards the last, she would have died at the end of a few months, after passing through all the degrees of a consumption of the lungs, incurable even when it shewed the first evident signs of its having commenced.

We must not confound the miliary tubercles of this Observation with the miliary granulations treated of in the next. These tubercles are opake and of a dull white. The granulations are shining, and demi-transparent like cartilages.

2d Observation.

First period.—Granular Phthisis—Lungs crowded with transparent miliary granulations—Death in an attack of suffocation.

A postillion, 24 years of age, of a bilious temperament, had always enjoyed good health, when he was seized with a dry cough the 17th November, 1806. Some days after, in riding post, his horse fell with him. His chest received a smart shock, and from that moment he felt considerable difficulty and great shortness of breathing; the cough increased, and 29th November the voice began to fail. After some days the cough and oppression of respiration encreased; expectoration took place, which resembled very thick frothy saliva; the voice became very hoarse, and the 6th December the legs appeared a little swelled. Nevertheless the patient preserved his appetite, and had stools as in health; but he was not able to work. This it was which compelled him to enter the Charité the 7th December, from which time he never left his bed. The 8th December he

was carefully examined. He had the plumpness and freshness of youth. The thorax was perfectly well formed, the appetite remained, the evacuations by stool and urine continued regular. But though the chest sounded well on percussion on all sides, the panting was very considerable: the pulse was excessively small, frequent and irregular. The beating of the heart was not remarkable: he had a strong cough, and spit thick phlegmy matter, very frothy.

The tongue, red and a little moist in the centre, presented on its two sides a whitish band formed by a very thick moist mucous. The countenance appeared dull and fixed; the face was sorrowful, the voice almost gone, and the lower extremities slightly ædematous. He was ordered whey sweetened and with nitre in it, honey and water with nitre and a squill potion. He passed day and night in constant uneasiness.

December 9th, in the morning, having grown worse, the shortness of breath was very great, and the pulse almost imperceptible: at a quarter before two he perceived an extreme internal coldness; soon after he was seized

with a sort of convulsive suffocation, and expired at two, twenty-two days from the commencement of the cough.

Opening of the Body.

External appearance.—The body was of good stature, plump, muscular, and remarkably fat; face full; lower extremities a little œdematous.

Head.—All appeared sound in the skull, which was carefully examined.

Thorax.—The thorax gave the type of the most beautiful conformation: a sculptor who was present thought the bust a very fine model. Both lungs were very free; they were of large size, and sufficiently heavy; examined externally, they appeared very sound, but a little gorged with blood; when they were cut into, their tissue appeared every where red and surcharged with an innumerable quantity of small cartilaginous grains, white, demi-transparent, each nearly of the size of a pin's head: these transparent miliary granulations were very

much crowded together towards the upper part of the lung, and less so the more distant they were from its root; one and all were absolutely in the same state. The heart was sound, but remarkable for the force and thickness of its sides.

Abdomen.—The liver and gall-bladder appeared in the natural state. The spleen, soft and of a very brown colour, was nearly twice its ordinary size. The stomach was sound, and the small intestines appeared shrunk as they are observed in the cases of sudden death, apparently, because then these parts have not yet lost their tone. The omentum had contracted an adhesion under the umbilical region, and presented in its tissue many portions black as ink, but of natural consistence: the largest of these parts, affected with *melanosis*, did not exceed a grain of millet. The urine and genital organs had undergone no alteration.

Reflections.—In the beginning of November, the cough not having yet commenced, where is the physician who, on examining this young man, who seemed to enjoy the finest health, and whose chest was perfectly well

formed, would have suspected a consumption? Where is the man who would not have been induced to give the assurance that no such thing could happen? nevertheless it already existed—already it was incurable. If this postillion had not had a fall, it is probable that the cough, which arose towards the middle of November, would have continued a long time, in spite of every means employed to combat it; consumption of the lungs would in the end have taken place, and it would have been difficult to believe that it was incurable even when first the symptoms of its existence appeared.

The fall this young man had gave the lungs a shake, which deranged their function, and brought on death. But if, in place of this accident, the patient had experienced a slight hæmoptysis, an eruptive fever, or any other similar disease, and that death had occurred in the last degree of Phthisis—who is the physician that would fear being deceived in affirming, that the Phthisis had been caused by the disease which preceded the appearance of these first symptoms?

Let us suppose again that there had arisen

a chronic pleurisy, which had accompanied the Phthisis even to its last degree, the signs of the pleurisy preceding those of Phthisis; should one fear to affirm, that the inflammation of the pleura had irritated the lung, and occasioned the developement in this viscus of an infinite number of small granulations? These reflections are applicable to all the cases of Phthisis terminating in death in the first or second period.

How often is scepticism reasonable when restrained within proper limits; and what prudence is not necessary when we are to pronounce upon the nature of a disease, and above all, are required to assign true causes for organic injury.

3d Observation.*

First period.—Tubercular Phthisis—Large unencysted tubercles—Died of peripneumony at the 8th day.

A hatter, 18 years of age, of a sanguine temperament, born of a father and mother who were in good health at the time of making

* By M. Nysten, professor of Mat. Med.

these remarks, had himself always enjoyed good health, except a few colds, which were quickly dispersed, when he was seized, during the summer of 1803, with a hæmorrhage from the nose, which returned frequently, particularly at meal times: soon afterwards he had colics and a diarrhœa, which disappeared and returned many times: his appetite diminished.

In the month of January, 1804, there occurred, during the intervals of colic, a cough and expectoration; what was spit up was often tinged with very red blood, and when the colics returned, the spitting of blood diminished, and increased on the contrary when the colics ceased: these disappeared at length entirely in the month of February following after some composing clysters.

The cough and expectoration went on augmenting; the cough occasioned a tearing pain behind the sternum; the hæmoptysis stopped and returned alternately: he made use of a pectoral diet drink, and followed his work.

In the middle of the month of March the hæmoptysis, which appeared afresh, was stopped by a bleeding; but the cough was not

quieted, and the expectoration continued abundant. The hæmoptysis re-appeared twenty days after the bleeding, and ceased again the 3d and 4th of April; but the cough and expectoration continuing, and the voice becoming obscure, the patient entered the Charité the 9th of the same month, that is to say about three months after the developement of the first symptoms of the affection of the chest.

The 10th of April there was no emaciation; his countenance was full and coloured, his lips thick, his tongue clean, his breathing free; but he experienced a frequent cough, accompanied with tearing pain in the chest: the sputum, mucous and frothy, contained small miliary points, small solid lumps, whitish and sometimes streaked with red blood. There was slight constipation; the pulse was small, sharp, and rather frequent. He was ordered whey sweetened, a pectoral diet drink, a linctus, and half a portion of food.

The following days there was more nasal hæmorrhage, and the expectoration became bloody: the breathing was embarrassed; it was

above all painful when he lay on the left side: there was diarrhœa.

April 17th was bled; after which the expectoration stopped, the breathing became more and more painful, the voice became more obscure, and the patient's strength decreased considerably: he lost his appetite, and passed his nights without sleep, sometimes sweating profusely. He had seven or eight stools in the twenty-four hours.

In the night of 20th to 21st April had rattling in the throat.

April 21, weakness considerable, though he had not grown much thinner since his entry into the hospital; countenance coloured, tongue covered with a mucous coat, and rather moist; thirst considerable; breathing very short, in a great measure abdominal, accompanied with rattling, and with dilatation of the nostrils; cough frequent, very painful, increased by lying on the left side; no expectoration; tearing pain throughout the chest, increased by the cough; thorax sounding

pretty well on striking the sternal region, and giving rather a heavy sound on the sides; belly inflated, not painful on pressure; continuance of diarrhœa; moisture of the skin; pulse very frequent, feeble, and unequal; intellectual functions not affected—only slight stupor. A cordial potion was prescribed: the rattling of the throat ceased towards the close of the day; he passed the night without sleep, and lay upon his right side.

April 22, increase of general weakness, tongue dry, little thirst, breathing as before, diminution of the rattle, tendency to stupor; dryness, burning and sharp heat of the skin; pulse more feeble and creeping. He was ordered the juice of borage, oxymel, hydromel with nitre, the minor cordial potion, and two broths: want of sleep in the night.

April 23, the countenance still coloured, tongue a little moist, breathing more embarrassed, and accompanied with rattling in the throat very distinct; cough was less frequent, and without expectoration; voice very low; the skin always dry, and less burning than in the evening. The same prescription.

April 24, feebleness extreme; increase of rattling in the throat; breathing very short, and speech very difficult: no longer able to cough. In the evening breathing extremely painful, rattling very considerable: he retained his reason, and at midnight died suffocated. It was only eight days since the symptoms of peripneumony first appeared.

Opening of the Body.

The exterior of the body presented the *embonpoint* and freshness of youth; the lungs were free, voluminous, hard like liver in their whole extent, and contained heavy and large tubercular masses not encysted, most of them of the size of small walnuts, others of the size of nuts, and some smaller; they were of a dull very opake white, without any tinge of red, so that this colour contrasted strongly with the red of the (hepatised) liver-like parts; not one of these tubercles was soft in the centre. The mucous membrane of the bronchial ramifications was remarkably red. The heart and all the other vicera were found in a natural state;

but there were in the mesentery, glands nearly tubercular throughout, and as large as almonds.

Reflections on the preceding Observation.

If the peripneumony had not destroyed this young hatter, he would have had the pathognomonic symptoms of Phthisis during his recovery from it, and the tubercular degeneracy of the lungs would have been regarded as the effect of the inflammation of this organ badly cured. Here the coincidence of the tubercular state of the mesentery and of the lung; the acute character of the peripneumony, and the chronic character of the tubercular affection, do not admit of our falling into the same error: it is evident that it was the tubercular disease which excited, or at least aggravated the inflammatory disease.

The nasal hæmorrhages which happened during the summer, and the hæmoptysis which supervened at distant times, were probably the effect of the developement of the tubercular affection of the lungs; the same as the colic

and diarrhœa which happened from time to time depended on this degeneracy, which shewed itself in the mesenteric glands. The patient's symptoms, when he entered the Charité, were sufficient to make one apprehend a Phthisis, but not to characterize one. I range this observation with those which shew the state of the lung in the first period of Phthisis.

4th Observation.

First period.—Granular Phthisis—Lung filled with miliary granulations—Death produced by profuse hæmoptysis.

A labourer, aged 30, of a sanguine temperament, had all the freshness and plumpness of youth when he was received at the Charité the 14th May, 1805. He had been indisposed for three years, subject to repeated colds, and had never been entirely free from a cough and spitting from the time he was 28; nevertheless he had not grown thinner.

Two months before his admission at the hospital he had abundant hæmoptysis, and for

six months he constanly felt an indefinable internal uneasiness, and had often night sweats, but he was not constipated.

May 7, he was seized towards evening with a fresh hæmoptysis, and parted with more than a pint of blood during the night. The following days the quantity of blood continued to decrease, and the hæmoptysis entirely disappeared before the seventh day.

May 15, this man was examined at the Charité; he had appetite, did not appear ill, had a fresh colour, and did not shew the least trace of emaciation; the state of his pulse did not shew the least indisposition; there was only the cough; the spittings were not bloody—they were copious, mucous, and of an opake white. He was ordered whey sweetened, rice water, with gum arabic and the syrup of great comfrey. From the 15th to the 17th of May he became gradually better, and intended to leave the hospital very soon.

May 18, at eight in the morning he was still well; at nine he was suddenly seized with

a profuse hæmoptysis and violent suffocation, and in this state he died a quarter of an hour after.

Opening of the Body.

External state.—The subject preserved the plumpness and freshness of youth; the flesh was firm and of a beautiful red.

Head.—All was quite sound in the skull, which was carefully examined.

Thorax.—The heart contained congealed blood; it was in the natural state, as well as the aorta, which was opened in its whole length as far as the iliac arteries. The lungs were free, and appeared sound at first sight; but their tissue was filled with a great number of miliary or lenticular granulations, hard and resisting, easily to be perceived by pressing the lung between the fingers: after cutting into it these granulations were to be seen demi-transparent and of a shining white colour; they had in the centre a small opake point, black or white enclosed in a transparent and

firm envelope: these granulations were more numerous in the superior lobes than in the inferior, and resembled small grains of hail.

The trachea, the bronchiæ and bronchial ramifications were filled with congealed blood; the mucous membrane of the air passages was perfectly sound, and shewed no redness. In the inferior edge of the lobes of the lungs the blood appeared in some places slightly extravasated in the parenchymatous tissue: but in these places, even when a bronchial ramification was examined, its mucous membrane was quite sound, insomuch that it was quite impossible to discover the place from which the hæmorrhage proceeded that had killed the patient.

Abdomen.—The stomach inclosed a clot of blood of a beautiful red, and of the size of two fists, which swam at the pyloric extremity in a quantity of liquid blood, very frothy and of a vermillion colour; nevertheless the mucous membrane was sound throughout the stomach, as well as the œsophagus. There was no blood in the duodenum: that which was in the stomach seemed to have been swallowed.

All was sound in the rest of the abdomen; the intestines had not lost their spring; the liver, spleen, pancreas, omentum, and mesentery, as well as the urinary and genital organs, were in a sound state.

Reflections.—This man had for 3 years a cough, with glairy or mucous expectoration; nevertheless, as he had no fever, and did not grow thin, he could not be regarded as in the first degree of Phthisis: this might be suspected; but could it have been prevented if the hæmoptysis had not been fatal? I think not. It seemed that the first period of Phthisis had been very long, and that the others would have followed a very slow course, for the simple granular Phthisis appears one of the most chronic species of this disease; but to how many errors would not this affection have given rise before its termination—to how many imaginary causes would not one have attributed the origin and duration of it—how often would the obstinacy of this disease have tormented the physician, who would have been importuned incessantly for something to stop the cough and prevent consumption? He would not have been able, notwith-

standing, either to prevent the developement of this terrible disease, or to cure it.

5th Observation.

First period.—Tubercular Phthisis—Numerous tubercles in the lung—Death from typhus fever.

M. D. student of surgery, 19 years of age, of a bilious temperament and strong constitution, had the chest large and well formed; his father was affected with tetter. He had had a feeble constitution in his youth, and two hernias, one of which was cured by a woman, who extirpated the testicle of that side; the other was retained by a bandage, and disappeared by the aid of internal medicine, or rather spontaneously.

At the age of puberty this young man was much devoted to the chase; he grew much, and became strong and vigorous beyond what was expected. He since enjoyed good health for some years; but in his 17th, 18th, and 19th years, he experienced in the spring an

obstinate cold, of which he was cured each time almost instantly after being vomited by ipecacuanha: but since the first of these colds he retained a slight habitual cough; he was notwithstanding strong and vigorous. In the month of July, 1805, no one would have thought him affected with the seeds of a tubercular Phthisis, already even incurable, when he was seized with typhus fever, which destroyed him the 9th of September, 1805, after twenty-two days' illness. I think I ought to describe this fever in detail.

Seven or eight days before the attack of this fever, M. D. shewed a very strong desire to see his relations: he was disgusted with study, became sad and morose, and from that moment was tormented with the idea of his stay at Paris, and had violent pains in the head. The fever shewed itself August 19th, and pursued the following course:—

1st day, shivering, loathing, fever, pain, violent in the forehead.

2d and 3d days, the same symptoms, and sharp pain at the epigastrium, nausea,, thirst,

white very thick scurf upon the tongue, pains of the joints.

4th day, three grains of emetic, abundant vomiting twice; afternoon, head-ache excessive, great heat, dry skin, copious hæmorrhage from the left nostril.

5th day, fever still increasing, head-ache, return of bleeding of the nose, spontaneous vomiting of green bile, copious stools: treated with the vegetable acids.

6th day, return of the nasal hæmorrhage, head-ache nearly gone. Disturbance in his ideas.

7th day, delirium; picking at the bed clothes, starting of the tendons, convulsive movements of the buccinator muscles; articulation very difficult, tongue of a very sooty complexion, lips with a crust upon them; pulse strong, fever intense; belly soft and free.

8th day, same symptoms, frequent rising from his bed, calling out that he will return home. Had a pint of decoction of kina acidu-

lated with sulphuric acid, to be taken at two doses—the first in the morning, the other in the evening.

From 9th to the 14th progressive increase of symptoms; fever violent, with delirium and extreme agitation all night; eye quick and glistening; ardent desire to see his own country. Alternate intense heat, moisture, and copious sweating; abdomen swelled, though soft; urine red and seldom; swelling of the hypogastrium by the distended bladder.

15th, same state; discontinue the kina and sulphuric acid. Antispasmodic potion.

16th day, sweats without any remission of the symptoms. From 17th to the 19th day, in spite of the delirium, knew those around him.

20th day, an abundant yellow discharge by the right nostril; pulse still free.

21st day, same state of the intellectual faculties; no head-ache; universal and convulsive shaking; twitching of the tendons; pulse small, very frequent; belly swelled, not tense; stools

without difficulty; urine seldom; thirst ardent; lips, teeth, and tongue dry, and covered with a black crust; delirium all night. Died at one in the morning of the 22d day of his disorder.

Opening of the Body.

External state.—There was not the least trace of marasmus.

Head.—The head was carefully examined. The brain was very sound, as well as the membranes. There were not fifteen drops of serum in both lateral ventricles of the brain.

Thorax.—The heart was sound; it contained clotted blood. The lungs were very free, each being a little gorged with blood, principally at its inferior lobes. This was most observable in the left lung; but the right itself had slight red stains, and its surface was covered with an incipient membraniform exudation. The inferior lobe of the left lung contained more than twelve tubercles, of which some were encysted and others not encysted;

they were of different sizes, from that of a pea to a large filbert; some were still firm, others already suppurating. The purulent matter ascended in the bronchial vessels, and filled many of them. Around the tubercles the pulmonary substance was redder, and a little more dense than natural. Every where else the parenchyme of the lungs was perfectly sound.

Abdomen.—The liver was sound, but it contained a certain quantity of blood. The spleen was rather soft, the pancreas sound, as well as the stomach. The small intestines were slightly red; had internally, particularly near the cœcum, slight ulcerations, red at the edges, and white on the surface—a very frequent occurrence in fevers, either typhus or malignant. Trichurid worms were found in the cœcum, as we find in the cœcum of almost all dead bodies.

The urinary and genital organs were natural, but there was only one testicle. The flesh was firm, of a red brown, and very clammy.

Remarks.—The state of the inferior lobe of the left lung shews that the student, if he had

not died of the fever, would have become consumptive in his convalescence. The state of suppuration of some of the tubercles does not allow us to doubt it. The nervous symptoms had concealed the affection of the lungs during this disease; but we know that at the end of nervous fevers all becomes again regular from the time the nervous system is quieted; and if there was a complication, either inflammatory or of another kind, the symptoms of this concomitant affection recommence after having been suspended, and shew themselves if they did not exist before. Here the Phthisis would have been regarded perhaps as a depôt of morbific matter in the lungs. The knowledge of the nature of tubercular degeneracy removes all doubt that the tubercles preceded the fever. It is even probable they had existed some years, and that they had a tendency every spring to produce Phthisis at the first degree.

Ulcerations of the intestines are very frequent in putrid and in malignant fevers: they render the disorder more serious, but do not prevent the cure of it; and when these fevers do not terminate fatally, the ulcerations cicatrise. An example of this will be found in my

Memoir upon the Oedema of the Glottis. (*History of Peter Salard.*) I have collected many others, which it would be superfluous to mention here.

6th Observation.

First period.—Occult Phthisis—Tubercles and Granulations—Death after an Hæmoptysis, produced by the acute scurvy.

A coachman, 35 years of age, of a bilious temperament, having nevertheless a white skin, habitually enjoyed good health; had been ill only three days when he was received at the Charité, the 11th September. The disease had commenced without previous symptoms by an abundant evacuation of blood of a lively red colour, which proceeded from the mouth at different times, as if by gulphs.

The 2d day, the body was covered with red and lenticular petechiæ. Fresh evacuations of blood from the mouth.

3d day, nothing particular.

4th day, 12th September, the petechial spots were become of a whitish red; he was in other respects sufficiently well. The vegetable lemonade was prescribed, and whey acidulated with eau de rabel, and an astringent potion.

5th day, the spots were neither so red nor so blue.

6th day, 14th September, in the morning, had parted in the night with more than a pint of blood very red, which he said he perceived to rise from the upper part of the epigastrium without pain, heat, or pricking; but he never parted with this blood except after coughing. The cough, though slight, continued the whole day, and the expectoration was all composed of bloody sputum. There was much oppression, and the pulse was rather frequent. He was ordered the juice of nettles, the mineral lemonade, and a potion with the syrup of great comfrey.

15th September, the oppression was still marked; but there was no more blood in the expectoration, which was mucous, slimy, and white.

16th, the oppression continued; the lenticular spots on the thighs were become yellow.

17th to the 22d September, the spots of the skin disappeared completely; the cough continued; the expectoration was still abundant, and of an opake white. The pulse became every day more sharp and frequent; the oppression was still on the increase.

24th September, this man died at three in the morning. He was up the day before, and did not seem threatened with a death so sudden.

Opening of the Body.

External state.—Fleshy plumpness; no emaciation.

Head.—All was quite sound in the skull: there was but little serum between the arachnoid and the pia mater.

Thorax.—The lungs adhered a little to the contiguous parts by means of cellular flakes.

The mucous membrane of the trachea was

rather red, and the colour was deeper the farther one proceeded in the bronchiæ; but this membrane became white and sound again in the small bronchial ramifications.

The surface of the lungs had many inequalities. One distinguished on pressing them many small partial hard places. Though they still crepitated, they were more firm than in their natural state. The upper part of the superior lobes was dense, and sufficiently heavy to sink to the bottom of water. One saw every where in the parenchyme of the lungs a great number of miliary demi-transparent granulations, apparently cartilaginous, of opake miliary tubercles, and a certain number of tubercles like peas, internally of a yellowish white or grey colour, dense and firm. Around a great part of the granulations, and miliary or pea-like tubercles, the proper substance of the lung was a little hardened.

The heart was sound. It contained clots of black blood, and a concretion of coagulable lymph.

The stomach and intestines were sound, as well inside as out.

Abdomen.—The liver, the spleen, and the pancreas appeared entirely in the natural state, as well as the urinary organs.

The muscles were still pretty large and very red: the parts of the skin which had been the seat of petechiæ appeared in the natural state.

Article II.

Second period of Phthisis.—Observations on Phthisis at the first degree.

I place in this article four examples *(to which may be added Obs.* 34 *&* 43*)* which belong, the first to calcular Phthisis, and the last to tubercular Phthisis, though the subject died of chronic pleurisy.

7th Observation.

Second period.–Granular and ulcerated Phthisis at the first degree—Death from malignant fever.

A painter, 45 years of age, of a bilious temperament, and a strong constitution, had for twelve months an obstinate cough, with mucous expectoration: nevertheless he did not grow thin. These symptoms closed the 27th October, 1802, and were replaced by a violent head ache which nothing could appease. He had besides pain at the epigastrium, constant want of sleep; the tongue was whitish, and the pulse in the natural state. The appetite was totally gone. The patient was received at the Charité, the 10th October, 1802. There came on in the night between the 11th and 12th, something like idiotism. The 13th, the same state in the day time: in the evening the tongue was clean, the pulse natural, the abdomen lank. The disease was treated as a malignant fever.

14th, pulse rather small, soft, regular, and without frequency; the tongue rather brown towards the root. Intellectual functions the same, no convulsion, slight delirium. The patient got up often in the night, and was as it were stupid, and could not comprehend two questions together.

15th in the morning, nearly the same state

as the days preceding. He complained of being very ill.

16th, the same disorder of the intellectual faculties; a stupid look—pulse natural.

17th, at three in the afternoon, very strong exacerbation; delirium, violent convulsions. It was necessary to tie him at eight in the evening: at nine the breathing became difficult; he had the rattles, a very copious froth issued from the mouth; the eyes were dull, injected with blood, and turned towards the orbit. The agonies of death were manifest, and continued some hours. Death took place at one after midnight, 18th November, 1802.

Opening of the Body thirty hours after Death.

External state.—No emaciation.

Head.—There was a small portion of serum between the membranes. The lateral ventricles were much dilated, each containing more than an ounce and a half of serum a little turbid. There was also a little serum in the

other ventricles. There was near an ounce at the bottom of the skull, which was as turbid as that contained in the lateral ventricles.

Thorax.—The lungs adhered to the costal pleura at their superior lobes by means of loose cellular tissue. There were found in their parenchyme—1st, an infinite number of miliary granulations, demi-transparent and very hard like small hailstones;—2d, two or three small purulent foci, each containing about a scruple of white pus. These granulations were most abundant in the left lung, and the purulent foci were situated in the superior lobes of the two lungs, which were a little more consistent than the inferior lobes, but had not, nevertheless, the appearance of liver-like lung.

The heart was sound: there were clots of black blood in the left ventricle. A large yellowish concretion, shaking like a polypus, was contained in the right cavities, and extended into the venæ cavæ. The pleura was somewhat red, similar to those who die of putrid fever.

Abdomen.—The liver was sound: the left lobe had contracted some adhesions to the parts adjacent to its convex surface; these adhesions were formed by large filaments, and by accidental membranes making a sort of cellular tissue. There was but little bile in the gall bladder.

The spleen of the usual size, rather dense and discoloured, had contracted long standing adhesions to the parts contiguous to its convex surface. The pancreas was sound; the alimentary canal distended with gaz; the stomach very large; the descending colon was scarcely thicker than a finger. The kidneys appeared sound, as well as the bladder, which contained nearly a pint of urine. The flesh was of a natural colour, neither brown nor clammy.

Reflections.—This patient, if we may judge from the symptoms, had scarcely arrived at the first degree of pulmonary Phthisis. One could not even characterise the disease in any certain manner. Yet the lung already presented the same state as in confirmed Phthisis;

which proves evidently, that the passage from one to the other of these degrees of Phthisis presents an infinite number of shades, and that these degrees are rather an invention of the mind desirous of classing objects, than an actual difference in nature.

8th Observation.

Second period.—Granulated and Tubercular Phthisis at the first degree—Death from a disorder of the brain.

M. T. occupied in an office, 24 years of age, of a strong constitution and sanguine bilious temperament, was born of healthy parents. His father died at the age of 60, in 14 hours, of apoplexy, which succeeded a palsy of the right side, that commenced with the loss of motion of the inferior extremities, and had degenerated six months into hemiplegia. His mother is in good health. One of his brothers is hunch-backed: one of his sisters died of a chronic disease with hectic fever, at the age of eight years. Out of 15 children, 10 are still living.

M. T. had always enjoyed pretty good health: but was seized in 1804, at the age of 22, with a scrofulous affection, in which the glands of the neck, on both sides, were very large from the paroted glands quite down to the clavicles; and had a dry cough many months. He was directed to use a diet drink of hop and the bitter elixir, from time to time replaced by the antiscorbutic syrup. The cough subsided; but during several months in 1805 and the beginning of 1806 many of the cervical glands suppurated on both sides near the clavicles. In the beginning of this latter year the patient contracted a gonorrhœa, which lasted many months, and was followed by a yellowish mucous discharge, which continued to stain the linen to the end of that year.

Nevertheless, in the spring of 1806 a great part of the cervical glands had recovered their natural size; some still remained large. Of those which had suppurated, some had returned to their natural state; others still rather enlarged, were gradually dispersing. All the functions were in a good state; and during the summer and autumn of 1806 M. T. discontinued the use of all medicine, because he considered himself quite well.

In the beginning of December of the same year he was seized with a cold, which appearing slight, he neglected it more than twenty days and followed his business. Nevertheless, about the 20th December finding himself more uneasy than usual, he sent for a physician: he had at the time a slight cold; pulse rather frequent; coughed much, spat little; was shivery; but his appetite continued. He was prescribed a composing pectoral diet drink, veal-tea, white emulsions, a restorative regimen, and abstinence from wine. He passed many days in the same state of simple indisposition; he had slight fever in the evening; his appetite diminished.

26th, the pulse was a little more frequent than natural: the appetite had diminished, and there was much cough.

The 29th, in the morning the fever and the cough had diminished. The patient mentioned various things about his gonorrhœa; appeared disturbed, and recommenced many times the same expression; his ideas even did not seem very clear. But all this appeared to be the effect of the emotion he was in; and the

more so, as the slightest cause was sometimes sufficient to produce in him the same occurrence, even when in health. During the day nothing particular occurred.

30th December, towards noon he appeared to have his ideas confused; searched for words, expressed his ideas very ill, and was angry when one did not instantly comprehend what he meant. He vomited slightly in the evening and in the middle of the night; he was agitated, and seemed to speak with difficulty.

31st December, he rose, but for a short time; he eat little; he returned to his bed, where he was a little agitated, nevertheless he made no complaint; his ideas did not appear very clear; he did not get up again, and he vomited in the evening a little watery matter. The night passed in the same state; he scarcely coughed, and the pulse was not frequent.

1st January, 1807, he vomited a little at nine in the morning, and the cough was gone; the pulse was quite natural, neither hard, frequent, nor feeble; the tongue

was very clean; there was not any nausea: his ideas were rather perplexed; the speech at times a little embarrassed; he recommenced many expressions, and never answered any questions but with short phrases. He tossed about much in bed, turning from side to side, and now and then making deep sighs, and continually groaning. The tendons of the wrists had frequent twitching, particularly of the right side. When he was asked any questions, he opened his eyes very wide, and fixed them with an air of astonishment, but made no complaint. In asking him why he tossed about so much, he answered—I know nothing about it; adding, I had at times in the night a violent pain all through the head. In asking him if he was in pain, he answered—I am not actually in pain.

From the constitution of the patient, from the scrofulous affection which had preceded, and above all from the existing symptoms, the physician who had the care of this young man declared his disorder to be a very serious one, and acquainted his friends. He prescribed antispasmodics and tonics, in diet drink, in draughts, in clysters, in topical applications;

besides a large blister to the nape of the neck. The day passed in the same state, and in the evening the patient answered only two words to each question; he made no complaint, notwithstanding his agitation; asked for nothing, but took what was given him, and in the night was much agitated. When interrogated, he said he had no pain in the head; he began many phrases without finishing them: the cough had quite disappeared.

The 2d of January there was scarcely any twitching of the tendons. His ideas were quite confused, or rather he did not appear to form any. When he was interrogated, he only answered yes or no, but à propos. Though he pronounced with ease, the want of ideas seemed to prevent his speaking, and he forgot the questions which required an answer of two or more words; or if he began an answer, he stopped after having pronounced the first word. In asking him if he had pain in the head, he answered no. The look was as the day before; all the movements appeared free, except those of the right arm, which were a little embarrassed. The pulse was rather stronger than it had been the evening before;

but it retained the natural frequency, and was quite regular. The skin was the same as in health, and the countenance not altered. There was no more vomiting, and one heard a hickuping at distant intervals. Medicines appeared to have no effect. In the day time the agitation continued. He scarcely ever knew the assistants; but had an air of astonishment: took the glass and forgot the drink; amused himself sometimes with his hands, like an infant, or feigned different tricks. He forgot to make water, or made it in the bed, as he did his stools. Towards evening he made no more water, and in the night the bladder formed a pretty large tumour in the hypogastrium: the urine then began dribbling.

The 3d of January, in the morning his eyes were closed, and he did not answer any question. He contracted himself a little when he was even slightly pinched; the forearms were bent upon the arms, the hands upon the forearms, and the fingers towards the palm of the hands. This bending was a tonic spasm much more marked upon the right arm than the left. There were partial convulsive movements of the face, which was a little discom-

posed. He passed his stools and urine in bed. The pulse was neither frequent, irregular, nor feeble, but as in full health. All the medicines were continued; a gum elastic catheter was introduced into the bladder, and blisters were applied to the legs. He went gradually worse during the day. Towards evening there was slight rattling in the throat, which became more and more strong; the right arm was almost paralysed, the left was still a little contracted. The pulse became frequent, irregular, unequal, and at eight in the evening it was without steadiness. The countenance soon after was quite discomposed; in two hours he sunk into a state of extreme prostration, and expired without convulsions: the countenance then resumed the same expression it had in health, when asleep.

Opening of the Body by M. M. Moutard-Martin and Cayol together, 36 hours after death.

External state.—The body did not appear sensibly emaciated. The chest was large and well formed.

Head.—The head was carefully opened. The blood vessels of the membranes contained much uncoagulated blood, but the brain was not gorged with blood more than ordinary.

The whole substance of the brain was examined with care; it appeared perfectly sound throughout; only under the pia mater there was, at the surface of the brain, a slight alteration not of the extent of the nail of the little finger, and formed by miliary round bodies of a dull opake white. The largest of these did not exceed the size of a pin's head. They were opake in the inside.

There was in the two lateral ventricles some redish serum, a little more abundant in the right side than in the left, where it was estimated at a scruple.

The cerebellum was carefully examined, cutting it by small slices, as was done with the brain; it was every where sound.

The medulla oblongata appeared much more firm than natural. There was found almost in the centre, but on the left a little

above the pyramidal and olivary eminences of that side, a nearly round body of the size of a small pea, insulated, contiguous, and not connected with the medullary substance, which surrounded it on all sides. This body was of a yellowish white, and rather shining on the outside: there was a cyst, with sides very thick, which contained internally a small opake tubercular kernel, of a dull and yellowish white, which contrasted strongly with the colour of the sides of the cyst.

Neck.—Among the glands of the neck some were tubercular, hard, greyish, or of an opake white, and similar to hard cheese; the others, enlarged only, exhibited small tubercular portions insulated and detached from one another in the same gland. The portion of the gland which was tubercular was hard, of a dull opake white; whilst the portion which was not enlarged was soft, rose-coloured, and slightly opake, insomuch that it contrasted strongly with the parts become tubercular.

Thorax.—The lungs were free. They appeared a little crimpled, and were of a bluish red. One perceived, in compressing them, a

great many hard bodies formed in their tissue. In cutting them one found throughout, but principally in the superior lobes, a great number of opake miliary tubercles, and transparent miliary granulations. There were besides many lenticular tubercles, and even tubercles larger than peas. The greater part of these tubercles were grey, or of a yellowish grey; some were black; almost all were firm. There was only one found in a state of suppuration: it was situated in the superior lobe of the left lung. The inferior lobes were less affected, though they contained a great number of miliary tubercles, and transparent miliary granulations in an insulated state.

The proper tissue of the lung was soft, gorged with blood and serum; but it was neither hardened nor inflamed. The heart was very flabby.

Reflections.—It is probable that this young man's lungs had been long tuberculous. —The cold that appeared a month before death did not seem serious; there was no emaciation, but slight fever; and it is very probable that the Phthisis commenced with these

symptoms: in short, though we could not be sure that this patient was becoming consumptive, there were sufficient signs to raise a suspicion that the supposed rheum was a Phthisis in its first degree. If an acute disease had not shortened his days, the affection of the chest would have proceeded successively through all the degrees of consumption of the lungs, already incurable, even from the moment it made its appearance.

We have seen also, in this observation, the difference there is between the interior of glands become tubercular and that of the same glands only tumefied, obstructed, and kept in a state of chronic inflammation by local irritation, such as the tubercular state of one or of many points of the gland.

There was a general commotion in the glands, and in the tubercles at the time the acute disease which destroyed the patient shewed itself; and it is probable that this was occasioned by the tubercular body discovered in the medulla oblongata. Since I have published my remarks on tubercular degeneracy, I have seen many persons who have died of

tubercular degeneracy occurring in the brain, the cerebellum, or the medulla oblongata. These tubercles, situated within the head, have caused many nervous symptoms, of which I shall treat in an account I propose to publish on different diseases of the brain, united by most authors under the name of apoplexy, and confounded with the real apoplexy.

9th Observation.

Second period.—Tubercular Phthisis at the first degree—Tubercles not encysted in the lungs—Death caused by a peripneumony.

A butcher, 27 years of age, of a sanguine temperament, pretty strong constitution, and of an elevated stature, enjoyed good health up to his 27th year; when about the middle of September, 1804, he had a putrid fever, of which the duration was long, and the convalescence difficult. He coughed, had a frequent pulse, and did not regain either his appetite or strength. The appetite returned indeed about the 3d November, and increased on the following days; but his means of subsistence failing, the conva-

lescent was obliged, in order to subsist till his strength returned, to enter the Charité on the 12th November. His pulse was still a little too frequent, and though he had during eight days a brisk appetite, his tongue was whitish. There was no change during the month of November, except that the cough diminished; and it ceased almost entirely at the end of the month. In December the tongue became clean, the appetite was sharp, the pulse seemed almost in a natural state; but the strength returned only very slowly, though the patient was nothing like so thin as when he entered the hospital. Towards the middle of December, and even to the 12th of January, 1805, he began to feel much oppression throughout the chest; was seized again with a dry cough, and the pulse grew manifestly more frequent. The strength did not return: he made use of a pectoral diet drink.

From the 16th to the 19th of January, the tongue preserving a good colour, the pulse acquired again more frequency; the cough also more frequent, but less dry, was followed by mucous expectoration which did not appear at all suspicious. But on the 20th January blood

began to appear in the sputum, and the respiration was embarrassed: there was no more suffering in one side of the chest than in the other; the uneasiness in the whole of the chest was extreme. Leeches were directed to the arms; and an astringent emulsion was prescribed, and rice drink sweetened with the syrup of great comfrey. The oppression increased. The spitting, from day to day more bloody, was also more copious. From the 22d January a diarrhœa took place, which nothing could check. From 23d to 28th January all his sufferings increased; the pulse was small, tense, very frequent and feeble: 29th to the 30th the agony still increased, and the unfortunate youth never ceased crying out and tossing himself in his bed in every possible manner. He was delivered from his sufferings the 30th January, 1805, at 1 p. m.

Opening of the Body.

External state.—The body was not much emaciated, but the flesh was somewhat flabby.

Head.—Within the cranium every thing appeared natural.

Thorax.—The left lung was sound. The right was large; its inferior lobe appeared sound; the two others dense, carnified, very compact, and redish, sunk to the bottom in water; their surface was slightly covered here and there with an albuminous pellicle, very thin and very soft. The superior lobe had on its surface two whitish spots more than an inch broad, and two inches long. These spots were formed by a great number of miliary bodies, round, opake, and tubercular: those within the lung were of a dull white. Under these miliary tubercles there were three tubercles evidently continuous to the tissue of the lung, and without any cyst. One of these was as large as a hasel nut, and the smallest was the size of a pea. The costal pleura was a little red, and strewed with threads of soft albumen, which was easily separated. There was nearly half a pint of serum effused in the side of the thorax.

The heart, voluminous and sound, contained clotted blood in its four cavities: there were in the right ventricle yellow fibrous clots, soft, and imbued with a little serum.

Abdomen.—The liver was pale and voluminous, but it was not fat. The gall bladder contained a small quantity of pale bile, which had not coloured its sides yellow. The spleen was large, tabulated, soft, and adherent. The pancreas, as well as the omentum, appeared sound. The alimentary canal was enormously distended with gas: the stomach was sound. In examining the intestines, there were to be seen in many places red circular circumscribed spots, and portions of intestine of different sizes, and of a redish brown colour. In none of these places was the intestine dilated; but its sides were thick, and there were in the interior deep circular ulcerations with elevated edges. These ulcerations were particularly numerous near the valve of the ileo-cœcum. They were also in the cœcum. The kidneys and the bladder were natural.

Reflections.—It appears that in this patient there remained, after the putrid fever, a slight chronic peripneumony, which was kept up by the tubercles in the lungs. Rest and a regular diet, with some medicines, at first diminished the peripneumony, which resumed its course in December, and from that moment

made every day new progress, and even became acute towards the middle of January. It was no doubt the acute peripneumony which was the cause of death. The albuminous covering which was still soft upon the surface of the lung, does not admit of our mistaking the acute state of inflammation, which had been already indicated by the symptoms which took place before death.

Phthisis could scarcely be suspected; for the cough and habitual fever arose rather from chronic peripneumony than from Phthisis. As to the tubercles in the intestines, as they often occur in putrid fever, it is possible that they had been nearly cured, and that the acute fever which accompanied the peripneumony in its latter periods had renewed them; for it seems that the patient was far from the last degree of Phthisis, which is the epoch when we often find similar ulcerations in the intestines. Nevertheless, I dare not decide in this respect; and I cannot repeat it too often, that one never can be too circumspect in assigning causes for organic lesion.

10th Observation.

Second period.—Tubercular Phthisis at the 1st degree—Tubercles in the lungs—Death from pleurisy and marasmus.

A girl, 13 years of age, was conducted to the dispensary by her mother, a thin woman, more than fifty years of age, and who had for more than 18 years on the right side of her chin a hard gland, indolent, and something larger than a nut. The girl was very little, and very intelligent for her age. She had bright eyes, black hair, and brown skin. From six years of age she had two hard and indolent glands under the chin on the right side of the neck, almost as large as those her mother had in the same place, and for some months there had arisen new glands in the right cervical region. The complaint for which she applied was an obstinate diarrhœa, which nothing could stop. For more than a year this little girl had a dry and not very troublesome cough; and for some months her belly gradually enlarged, and became tender to the touch. There was no tumour to be discovered; but it

was inflated, and the diarrhœa, which had existed without interruption for more than six months, had reduced her to a state of excessive emaciation: she resembled, to use a vulgar expression, a walking skeleton. The skin was dry and earthy; the pulse sharp and frequent; but the appetite was good: the sleep was also good in spite of the night sweats, and there was more strength than one could have imagined in such a state of extreme emaciation. The disease was considered a marasmus complicated with Phthisis, and was treated at the dispensary for nearly a month. In April, 1804, the medicines appeared to have increased her strength: nevertheless there was no marked effect on the disease, and in May she came to the hospital. She had still an appetite for some days; but towards the 4th of June she perceived sharp pains in the breast, an oppression, a cough growing more and more frequent, but always dry. From this time she never left her bed. The pulse was extremely frequent; the former symptoms, as well as the recent ones, were without intermission. This girl died the 12th of June, having experienced all the symptoms of acute pleurisy, in a subject reduced to the last degree of marasmus.

Opening of the Body.

External state.—The body was small, thin, and exhibited the image of the last degree of marasmus. There was no sign of puberty. The hymen was lacerated, but scarcely so on the right side.

There were under the chin toward the angle of the lower jaw, on the right side, four or five lymphatic glands, as large as peas or nuts, opake white; some firm, others already soft in the centre: there was one which was not opake white, but in a small circumscribed spot, and quite sound in other parts, though tumid throughout, and rather red in the part which was not tubercular.

Thorax.—There was nearly a pint of serum in each side of the thorax; a slight albuminous exudation covered the surface of the two pleuræ. The lungs were free, appeared sound, and really were so except at the root. They were throughout void of air, owing to the pressure of the effused liquid. The glands at the root of the lungs were the size of

lentils and peas; they were almost all transformed into white opake matter, and tubercular like those placed under the angle of the right side of the jaw. The heart was sound.

Abdomen.—The abdomen was pretty voluminous, and inflated with wind. There was no distinct tumour, and no serous effusion.

The liver was sound, but hard, and of a pale sulphur yellow; nevertheless it did not grease the scalpel. The spleen was sound, as well as the pancreas and the stomach. The intestinal canal was distended with gas. The small intestines presented many black spots, more numerous towards the end of the ileum; and internally the portions of mucous membrane which corresponded with these spots were the seat of ulcers, round, and as large as a lentil or the finger nail, black and unequal at the surface, and with unequal broken and elevated edges. Ulcerations of the same nature were found in different places within the large intestines. The omentum was without fat. The mesentery contained a great many glands, of which the size varied from a lentil to that of a filbert. Some of these glands were only en-

larged; but the greater part were transformed into an opake white tubercular substance. Nevertheless scarcely any of them were yet much softened in the centre. Those which were only enlarged were sound internally, and softer than the others.

The kidneys and bladder were natural.

Reflections.—This girl died of a pleurisy complicated with marasmus. The abdominal disease had made much more progress than the Phthisis, and would have brought on the death of the patient, who was not really at more than the first degree of pulmonary Phthisis, since the cough was still dry, and the lungs almost entirely sound before the attack of pleurisy.

The cervical glands having long been voluminous, were become tubercular; & it is almost certain, that what her mother has at the same part is also tubercular, but in a stationary state.

Article III.

Third period.--Observations respecting Phthisis at the second degree.

Three examples have appeared to me sufficient to prove the state of the lungs in this, which is the period at which such a great number of consumptive persons die, in whom some serious complication occurs when they are much weakened by the pulmonary Phthisis. One may again report, at this period, *Obs.* 24 & 32.

11th Observation.

Third period.—Phthisis at the second degree —Tubercles not encysted.

A tailor, 21 years of age, of a sanguine temperament, having the skin very white, and hair redish, enjoyed excellent health, when he was seized, the 15th March, 1803, with an acute disease, which occasioned from the 3d day bloody expectoration, though there was no pain of the side. After this he never ceased coughing; had a hoarse voice and abundant night sweats, principally at the breast. He grew thin by degrees in the months of May, June, July, & August. He was received at the

Charité the first of August, 1803. It was now four months and a half that he had been ill, and for some days he had a continued fever. The symptoms we have been speaking of continued: he said he could sleep upon both sides, nevertheless he always lay upon the right. The breast sounded very well on percussion: there was neither diarrhœa nor constipation.

From the 1st of August to the 16th, the febrile disease took the course of gastric fever, and at the end of the month he appeared recovering from it; but the disease of the breast continued. Every morning on waking, and during the day, he expectorated a grey, ash-coloured puriform matter, which was sometimes mixed with a little blood, and surrounded with a glairy tenacious matter. The cheeks were very red, and the right was a little swelled. The tongue was clean, and the appetite continued. The pulse was very small, feeble, and rather frequent.

From the 22d of August to the 23d September the emaciation made daily progress; there was no diarrhœa, but he experienced abundant night sweats. The face did not grow very thin,

but it became from day to day very pale. He was ordered milk diet. At the beginning of September the progress of the disease did not seem relaxed: nevertheless the diarrhœa did not occur. The night sweats were more abundant, and the thinness more marked: the chest sounded well on the left, but it gave a dull sound on the right side.

At length, on the 23d September, 1803, he expired at three in the morning, being as yet only moderately thin, but for some days extremely pale.

Opening of the Body.

External state.—The face had still considerable *embonpoint*, and the wasting of the body was not extreme.

Head.—There was much serum in the tissue of the pia mater, and at the base of the cranium; about three drachms in each lateral ventricle, and one drachm in the fourth ventricle.

From the right parotid to the thorax, the

neck was slightly swelled. After having raised the skin, and the sterno-mastoid muscle, we found an uninterrupted cord of whitish and nearly round glands, much larger than almonds: some of these glands had internally matter already as soft as soft cheese; others a white matter, rough to the touch, like plaster.

Thorax.—When the left side of the chest was opened, there proceeded from it, as if by a sort of explosion, a great quantity of gas. There was on this side a great vacuum, which would have contained three pints of liquid: we only found about two ounces of serum.

The left lung, pressed on the side of the mediastinum, was hard, unequal and firm. In cutting it, one saw its substance degenerated throughout into a white matter, still organised, but like the interior of tubercles. There were besides a great number of small cavities smeared with pus, lined by a membrane which was in communication with the bronchiæ. This lung was nearly free.

The right lung adhered strongly to all the contiguous parts, & besides exhibiting the same

lesion; it was harder than the left. The heart, nearly empty, swam in more than a pint of transparent serum effused into the pericardium.

Abdomen.—The liver appeared sound: the sides of the gall bladder were thick and swelled with serum, as well as the cellular membrane of the whole of the abdomen.

The spleen appeared sound. The pancreas was pretty large, rather hard, and very white. The omentum and the mesentery were in the natural state: the mesenteric glands were rather voluminous and soft.

The stomach was sound. The small intestines contained much matter, which resembled a sort of yellow boullie; they contained likewise a thick and sanious mucous matter. Many small portions of the intestinal canal were red and thick; and in places where this alteration was observed, the mucous membrane was thick and ulcerated, or else it was swelled by numerous blood vessels, red and much injected.

The kidneys and bladder appeared in the natural state. The flesh was of a red sufficiently

marked. The ribs were very solid, and difficult to break.

Remarks.—This young man died in passing from the second to the third degree of pulmonary Phthisis. It appears that there had been an effusion of serum in the left cavity of the chest, which had been absorbed and replaced by an aeriform fluid, a phænomenon not very rare: it has furnished to M. Itard the subject of a very interesting dissertation upon pneumo-thorax.

12th Observation.

Third period.—Phthisis at the second degree—Tubercles in different parts—Acute pulmonary Catarrh—Ascites.

A sawyer of planks, 21 years of age, of a bilious temperament, had been ill six months, January 4th, 1803, the day of his entrance at the Charité. His disease had commenced by a cough, and an abundant and glairy expectoration. For four months there had also been pains in the breast, which for two months

had become pretty sharp behind the lower third of the sternum. Besides, for six weeks the breathing was much embarrassed, particularly on motion, and he was easily put out of breath. Nevertheless the appetite continued: the tongue was clean; the thirst variable, and the stools as in health.

The patient was in the hospital for four months. In February there was much cough and glairy expectoration. The cough diminished the beginning of March; and, in short, ceased almost entirely. From this moment the abdomen began to grow large.

The disorder was treated by bitter decoctions and an aperient diet drink; nevertheless, there was evident fluctuation in the abdomen, and the appetite continued; the patient eat a half portion: he neither coughed nor scarcely expectorated; when, on the 19th April, he exposed himself to a great wind in the court; the same day, in the evening, he was seized with a pain in the pharynx and strong cough, which was regarded as an accidental cold. He was ordered a refreshing gargle and a pectoral diet drink. April the 20th the cold continued,

and diarrhœa betrayed itself: the abdomen was pretty large and fluctuating, but there was no swelling of the lower extremities. He was prescribed the bitter infusion, the vulnerary infusion with syrup of tolu, and the refreshing gargle. April 21st the pulse was very languid and slow; the patient found himself very feeble—he was emaciated, but had no fever: the rheum and diarrhœa continued: he was ordered the larger cordial draught, and the vulnerary infusion with syrup of tolu. April 22d all appeared in the same state, but the pulse was slower, and the feebleness extreme: at a quarter past eight he was seized suddenly with convulsions; he turned his eyes, and his limbs were cold, stiff, and extended; the arms, at one period distant from the body, were at another near the breast: there was no foam in the mouth. This state of convulsion still continued at nine; it then diminished gradually, and life extinguishing itself by degrees, he died at ten.

Opening of the Body.

External state.—Considerable thinness, but no absolute marasmus. The thorax sounded

pretty well before and not well behind, particularly on the right side. The abdomen was of nearly natural size, but with very distinct fluctuation.

Head.—There was a very large quantity of serum between the pia mater and arachnoid coat, and about five drachms in each lateral ventricle, and more than an ounce at the base of the skull.

Thorax.—The heart was free, small, and very sound.

The lungs adhered almost entirely to the surrounding parts. The mucous membrane of the air passages was sound at the larynx and the higher part of the trachea: it appeared scarcely red at the lower part of the trachea; and in the bronchiæ there were found in different places many tubercles, very large and very irregular, formed by a white and cheese-like substance, pretty solid, and which, when broken between the fingers, exhibited very distinct filaments: none of these tubercles were continued to the parenchyme of the lungs. The tissue of this viscus was soft and very

sound, without any hardness; one only saw some small miliary bodies, hard, grey, semi-transparent. The seat of the tubercles in the the two sides of the breast, was 1st between the intercostal muscles; 2dly, under the pulmonary and costal pleura; 3dly, in the cellular tissue placed behind the sternum. Many tubercles were almost as large as two nuts united, and were more or less flattened; others, at the most, were the size of a nut or a pea. Some were placed behind the lungs; others seemed within their tissue; but it was easy to be convinced by dissection that they were situated only under the pleura, or between the lobes of the lung. Some were situated between the anterior part of the mediastinum and the sternum. In short, there were more than 20 found flattened and placed between the external and internal intercostal muscles, without any communication with the pleura. There were a great number under the right mamma, and between the three last true ribs. None of these different tubercles had a distinct cyst. Some of them began to be softened in the centre, and this softening was observed particularly in the largest.

Abdomen.—There were nearly three pints of serum, of a citron colour, in the abdomen. The liver, pressed to the diaphragm, exhibited a very great number of small miliary greyish bodies, almost transparent, and seated under its proper membrane; some of them of the size of a lentil: very small ones were to be seen in the interior of the liver. This viscus was otherwise sound. The gall bladder, of a pale yellow, was distended with bile. The spleen had at least three times its ordinary volume, with an infinite number of small embossments of the size of a pea. Its whole parenchyme was filled with an infinite number of small greyish bodies, firm, of a tubercular appearance, and of the size of a pea, which were almost all without a proper envelope. The pancreas appeared very sound.

The mesentery inclosed many glands which were as large as nuts, and contained a white cheese-form consistent matter, easy to be insulated. The stomach and the intestinal canal appeared natural. The mucous membrane of these viscera was sound. There was no ulceration in the small intestines. The uri-

nary and genital organs, examined with care, exhibited nothing wrong. The glands of the neck were sound, as well as those of the loins.

13th Observation.

Third period.—Phthisis at the second degree —Granulations and Tubercles.

A loader, 25 years of age, of a sanguine temperament and athletic constitution, with the thorax very large and well formed, was taken, at the beginning of the month of June, 1803, with a dry cough, which lasted six months without producing expectoration. About the 7th month a spitting (not bloody) took place, the quantity increasing by degrees: in the space of six months it became very profuse, and was formed of a white opake and viscous matter, which swam in a large quantity of liquid, glairy and thready phlegm. The progressive emaciation and diminishing strength compelled the patient to resort to the Charité, the 26th July, 1804, thirteen months after the attack of the disease.

The voice having failed him a month, the aphony became complete, & he felt much uneasiness in the superior part of the thorax behind the sternum: he was still very fleshy, but said he had lost much of his plumpness, and was reduced one half. Nevertheless he had followed his employment till within three weeks, and was without fever. He had never experienced night sweats, though he had sometimes been constipated, and had scarcely had any diarrhœa.

He seemed better the first week of his being in the hospital. But soon the expectoration became very copious: it was glairy, and almost entirely ropy. At the beginning of August the tongue had a yellow stratum. He had constant fever, and lost his strength completely. At length, quite feeble, he died the 14th of August, 1804, at five in the morning.

Opening of the Body.

Larynx.—The inferior surface of the epiglottis was speckled with red points, and the cartilages of the larynx were ossified in many

places. The ventricles of the larynx presented a superficial ulceration, which extended over the ossifications affected with commencing caries. The edges of the ulceration exposed the mucous membrane of the larynx, which was more elevated than the bottom of the ulcer where this membrane was destroyed.

Thorax.—The lungs in the inferior part were free and sound; but at the superior part there was a great number of excavations capable of holding a nut, and even a larger body: these excavations were full of pus, white and thick; they were lined by a very distinct membrane. In many places there were miliary granulations, transparent or demi-transparent; and at the same time miliary tubercles, pea-form tubercles, and others much larger: but all were of an opake grey. They were not numerous, nor were they found except in the superior lobes. The heart was sound; it inclosed black and clotted blood.

Abdomen.—The liver, the spleen, the pancreas, the mesentery, the omentum, the stomach and the large intestines, all appeared sound, except the cœcum, where there were

some small ulcerations. The small intestines had contracted a great number of slight adhesions, which united to one another many circumvolutions of the intestinal canal. These adhesions were from a finger's breadth to one or two inches in length, and in these places the peritoneal coat was slightly ulcerated. Above this tunic there were many opake miliary tubercles. Similar tubercles were situated in great numbers all over the muscular coat: and at these places, which appeared grey on examining the surface of the intestines, one saw, after slitting up the intestinal canal, that the mucous membrane was ulcerated. The ulcers were of the same size as the thickened portion; had an unequal surface, and were grey, red, or whitish, or of a colour formed by these united. These thickenings and ulcers were observed in almost the whole of the jejunum and ileum. In many of the places thus altered, the sides of the intestines had acquired two or three lines of thickness, and even more.

Article IV.

Fourth period of Phthisis.—Observations on tubercular and granular Phthisis arrived at their last degree.

I place in this article five particular histories of the two most common species of Phthisis arrived at the last degree. The 14th Observation is an example of granular Phthisis, arrived at the last degree, without ulcerating the lungs. The 15th Observation shews the same simple species which has occasioned ulcerations in the air passages. In the 16th Observation are seen miliary tubercles, which are a degeneracy totally different from miliary granulations. In Observation 17, tubercles discovered in the different organs in the same subject; and lastly, in Observation 18, the union of tubercular with granular Phthisis. One may mention at the 4th period of Phthisis, a great many of the Observations of the 2d, 3d, 4th, 5th, and 6th Sections.

14th Observation.

Fourth period.—Granular Phthisis at the third degree—Miliary granulations in the lungs.

A hatter, 46 years of age, of a bilious temperament, enjoying habitually a good state of health, was seized with an obstinate dry cough, accompanied at the end of some months with a mucous expectoration. This man had the chest large and well formed, and he did not appear pre-disposed to Phthisis. Nevertheless it was to no purpose that he was prescribed bland pectorals, preparations with squills, blisters, issues, &c.; nothing could cure the cough, which was ascribed to taking cold; and more than a year he grew worse from day to day: emaciation became evident; he had febrile attacks, night sweats, and in short all the symptoms increasing progressively, he arrived at the last period of Phthisis in the month of August, 1806. He was admitted at the Charité the 21st. He could not leave his bed any more after 13 days: he was very thin; a fatiguing cough made him expectorate in moderate quantity a mucous matter, of an opake white. He was tormented at the same time with night sweats and a colliquative diarrhœa.

Whilst he was at the Charité nothing produced relief. His lower extremeties swelled, and he died the 24th September, at 10 in the

morning, about one month after his admission, and more than a year from the first symptoms of Phthisis.

Opening of the Body.

External state.—Marasmus carried to the last degree.

Head.—All was sound in the skull.

Thorax.—The lungs, of ordinary size and colour, adhered to the contiguous parts by means of much cellular tissue. Their interior inclosed, particularly in the posterior and superior parts, a great number of miliary white, shining, semi-transparent granulations, crowded in masses more or less considerable. None of these granulations were in a state of suppuration. There was no ulceration in the lungs. Many parts might be seen which did not contain any of these small cartilaginous grains; but in their place the pulmonary tissue had lost almost all its elasticity; and on compressing it, it became flat like wet linen, and did not regain a larger size than that to which it was pressed. The mucous membrane of the

air vessels was pale, and covered with a whitish mucous matter.

Abdomen.—The liver, the spleen, the pancreas, the kidneys and bladder, were in the natural state. The intestines appeared also not injured when examined externally; but after being slit open, there were at the internal surface of the cœcum a great number of fungous and granular ulcers, which affected the mucous membrane only.

The flesh of the whole body tore with the greatest ease; that of the lower extremities was pale and much distended with serum.

Reflections.—The death of this hatter could not be attributed to ulcerations of the lung, since there were none. The same thing is frequently observed in many of those who die of simple granular Phthisis; they only die from the exhaustion which the diarrhœa, the hectic fever, and the expectoration produce. It is the absence of ulceration of the lungs, which is the cause of the long duration of granular Phthisis in certain persons, who live in this state for many years without

the least trace of pus in the expectoration, and without one being able to pronounce with certainty on the true character of the disease.

15th Observation.

Fourth period.—Granular Phthisis at the third degree, pulmonary and laryngeal—Granulations miliary.

A man employed in a hair manufactory, 40 years of age, of a sanguine temperament, was seized towards the end of April, 1805, with an obstinate rheum. At the end of some months, his cough still continuing, he perceived darting pains in different parts of the breast, and his sputum was tinged with a little blood. The pains, as well as the spitting of blood, disappeared in a little time, but the cough continued. The glairy expectoration became every day more abundant. In October the pains of the breast returned, and the patient could not sleep but on the right side, or on the belly. When he lay on his left side, or on his back, he experienced painful drawing

sensations, which increased the cough in a fatiguing manner. Soon afterwards he had night sweats and emaciation. Insensibly his strength diminished; and ten months after the attack of the disease, not being able to continue his work, he was obliged to enter the Charité, where he was received the 20th February, 1806. The state he was then in was the following:—

Slight emaciation; pulse small and slow; skin of the natural heat. Always obliged to lie on the right side; thorax sounding well in its whole extent; pains of the breast in all parts; frequent cough, followed by a mucous, limpid, and ropy expectoration, in which opake parts (some tinged with blood) were seen swimming. Partial sweats in the night at the breast and palm of the hands; stools and urine in the natural state; tongue very clean.

To these symptoms were joined want of appetite; bitter taste in the mouth; epigastric pains, and a pain above the orbits.

These last symptoms disappeared easily

enough; but the principal disease increased from day to day. During two months and a half that this patient was treated at the Charité, he was observed always to lie on the right side. He grew thin very slowly. His skin assumed a pale colour; the voice became at first obscure, and then sunk altogether. Toward the middle of April there came on a diarrhœa that nothing could stop. The right side sounded always well on percussion: the voice could not be heard, but the words were whispered distinctly. At length death terminated his sufferings the 7th May, 1806, at one in the afternoon.

Opening of the Body.

Thorax.—There were in the larynx, at the base of the aretænoid cartilages, two greyish pretty deep ulcerations, larger than large lentils. The inferior part of these cartilages was carious.

The middle of the cricoid cartilage was red, thick, and very soft; the inferior part of the larynx was very red, a little thickened and

slightly ulcerated. This lesion increased in proportion as one advanced in the trachea and in the bronchiæ, where the swelling, the redness, and excoriation of the mucous membrane were much more intense.

The lungs were free; but in touching them one perceived an infinite number of small hard parts. When cut into they were found full of transparent miliary granulations, almost cartilaginous: there were at their base excavations, some capable of lodging a nut, and others large enough to contain a pullet's egg. These cavities communicated together. There were blood vessels and bronchial ramifications in the ulcers, and a thin membrane secreted the pus. There were no large tubercles in the lungs.

The heart was sound.

Abdomen.—There was about a pint of serum, of a citron colour, in the cavity of the peritonæum. The liver was sound, as well as the spleen, the pancreas, the stomach, the small intestine, and the mesenteric glands. There were to be seen on the outside of the large in-

testines a great number of red spots, of the size of a finger nail, which corresponded to large ulcerations of the internal surface of the cœcum, and of the whole colon. These ulcerations, which had completely destroyed the mucous membrane, had edges larger than the thumb nail, elevated, and cut perpendicularly.

The urinary and genital organs were sound.

16th Observation.

Fourth period.—Tubercular Phthisis—Miliary Tubercles.

A hair dresser, 29 years of age, of a phlegmatic temperament, experienced for more than six months a very troublesome internal heat, and night sweats, and was seized, in the month of June, 1805, with a violent and obstinate cold, for which he was treated in the military hospitals—he was then in Hanover. Two months after the attack of the cold he began to spit blood: and from that time he became very sensible to the changes of atmosphere; his rheum increased each time that he

felt the cold. In spite of the treatment adopted he got no better ; he perceived almost constant sharp pains in the breast. At the sixth month of his disorder, the cough became still more frequent, and it was almost constant. At the end of nine months he came to Paris. The pains of the breast diminished much: but the cough, the fever, and the inability to follow his business, forced him to enter the Charité, where he was received the 4th of June 1806, a year after the attack of the cough. He was then 30 years of age. He had not fallen away much; was subject to frequent stupor, but had no head ache. For more than a month he had made use of no medicine, and had a great appetite.

When the chest was struck it sounded well in all the interior part; but it scarcely gave any sound towards the lower part of the right side. The cough was strong and frequent, the expectoration mucous, and in part purulent. He experienced sometimes slight shivering, and he had night sweats, which for some time were become very copious. The body was costive, the skin hot and dry in the middle of the day, and principally in the evening. The pulse

was small and frequent, but very regular. He had a pectoral diet drink, sweetened whey, and an emulsion.

In the month of June he still appeared in the same state. At the beginning of July he had a complete fainting whilst he was up. At night he sweated. He grew gradually thinner, and the consumption still made progress, insomuch that at the end of July he was as thin as a skeleton, and had a diarrhœa. The expectoration was purulent and rather abundant. In short, arrived at the last degree of emaciation and weakness, he died the 16th August, 1806, having preserved the use of his senses to the last moment.

Opening of the Body.

External state.—He was of a moderate stature, and extremely emaciated.

Thorax.—The left lung adhered strongly to all the contiguous parts, except the diaphragm; for the inferior lobe, which answers to this muscle, was almost quite sound, though the pleura which covers it was about a line

thick, yellow and opake. All the rest of the lung was completely degenerated into a substance, fleshy, redish, crowded with tubercles of different size, from that of a grain of millet to a hemp-seed. These tubercles were white, opake, and strewed with small black spots; they were very numerous, and only left very little space to the intermediate fleshy substance. The right lung was in the same state as the left; but it only adhered to the neighbouring parts by means of cellular flakes.

The heart was very small, and of a tissue rather more dense than usual; but it presented no other alteration.

Abdomen.—The liver was sound, and remarkable only for the bluish colour of its whole concave surface. The gall bladder was full of bile, which, by the effect of transudation, had coloured the extremity of the stomach and duodenum.

The spleen and pancreas were in the natural state. The intestines appeared sound externally; but the mucous membrane of the cœcum and colon were very red, and presented ulcera-

tions, which varied in form and size, but which were all red and superficial.

The rest of the intestinal canal exhibited nothing remarkable, excepting that the mucous membrane was every where covered with a yellow liquid matter.

N. B. We must not confound the miliary *tubercles* which are observed here with the miliary *granulations*, of which we spoke in the preceding observation.

17th Observation.

Fourth period.—Phthisis at the third degree, complicated with an Atrophy.

P. J. G. eight years of age, had been more than eight months ill when he was admitted at the dispensary: his disorder commenced by a slight dry cough. He had had a pale complexion for some time; was very backward both in his first and second dentition; and from the year 1802 to the end of 1803 the 3d dens molaris of the left side of the lower jaw

had not penetrated; he had not even had any inflammatory movement at this part of the gums. After the dry cough had commenced it never subsided, particularly in the night; there was neither diarrhœa nor constipation; nevertheless the child grew thinner from day to day, and said he felt a pain in his breast; he had a little fever, particularly in the evening; and the 8th month (May 1803) he spat a little transparent mucous, mingled with small threads of blood.

The 14th June, 1803, the day when one of the physicians of the dispensary first saw him, he was in a state of decided marasmus: he had a very dry skin and sometimes night sweats; his pulse was small and frequent, and his tongue very clean: he had always had a good appetite. He felt a pain in his breast; in the day time he coughed, but particularly in the evening on going to bed, and the morning on waking. His belly was small, flat, and one did not perceive any tumors. He referred the pain he felt sometimes to the epigastrium, and at other times towards the shoulders. The physician conceived it a Phthisis arrived at the third degree. Nevertheless there had been no

diarrhœa, and the expectoration had not appeared clearly purulent. He continued to treat it for fifteen days, but declared to the parents he could not cure this disorder: they then applied to another physician, who, having examined the state of the child, decided without hesitation, that the disorder depended on the efforts of growth, and on the 3d dens molaris of the left side of the lower jaw not having made its appearance. He prescribed mutton gravy; baths; six leeches behind the ears; and the physician of the dispensary continued to collect the history of the disease, for his private information. The cough notwithstanding, as well as the hectic fever and the emaciation, continued to make progress. After the application of the leeches, it was difficult to stop the blood; the feebleness increased considerably, and the use of the baths seemed to accelerate its progress. He had aromatic frictions to the abdomen; and also compresses impregnated with spirits of wine and theriaca applied to the epigastrium.

In July the strength diminished every day: he began to have, from time to time, a little diarrhœa. The feet became œdematous:

another leech was applied behind the left ear. The 26th July blue spots shewed themselves first upon the legs, and then upon the thighs: the belly swelled; the diarrhœa established itself.

The 4th August the pulse was very frequent, the tongue clean. The blue spots had reached to the right arm; the left was quite free from them. The marasmus had reached to an astonishing degree. The physician who directed the treatment declared he had scarcely any hope left, except nature made a great effort. From that moment the child never left his bed.

The 5th and 6th August he appeared ready to expire every minute. He was quite collected, and regarded death without fear, and even with pleasure, as the termination of his sufferings, and the commencement of eternal happiness. The 7th August, about 9 A. M. he expired with violent convulsions, having preserved his senses to the last. A few days preceding his death he had great pains in the belly, which was much distended, and sounded on percussion.

Opening of the Body.

The skull was not opened. There was no alteration in the gum, nor in the tooth which was regarded as the cause of the disease. The heart was sound and almost void of blood.

The left lung was free and pretty sound.

The right lung adhered intimately by a firm cellular tissue to the ribs, the vertibræ, the mediastinum, and the pericardium. The whole of this lung was a little more dense than the other, and there was every where to be seen in it a great number of small hard tubercles and pea-like bodies; also a great number of purulent foci, capable of containing some a nut and others a small pea. The pus was very white. The lymphatic glands at the root of the lungs were numerous, and larger than a large hasel nut, and disorganized internally; some were already soft, others were becoming so.

The liver, the spleen, and the pancreas were sound.

The mesenteric glands were in a similar state to those at the root of the lungs. They were voluminous, collected into large parcels, and many were in a state of suppuration in their centre; almost all were half disorganized, and like the matter of very white tubercles. The intestines were distended with gas. The urinary organs were sound.

18th Observation.

(By M. Moutard Martin, D. M. P.)

Fourth period.—Granular Phthisis and Tubercular Phthisis—Pleurisy in the last days of life.

Jean André B——, a founder, having a bilious temperament, the chest well formed; had in his infancy many bad humours, and some glandular swellings which did not suppurate. During his youth he was subject to bleedings at the nose; and from the age of 13 to 14 years he had many colds, in which he expectorated threads of blood with the sputa. At a more mature age he was subject to the piles, which did not bleed, and which became habitual.

At the age of 33 years, he was admitted at the Charité, and was under treatment there for a diarrhœa, which lasted six weeks. He was reduced to the last degree of marasmus, and for more than 15 days appeared ready to die, when this diarrhœa stopped. He then recruited a little, and quitted the hospital, but was re-admitted 15 days after. He was extremely thin, and coughed from time to time. His expectoration, small in quantity, was mucous, whitish, and semi-transparent. The pulse was tense, feeble, and infrequent. The skin was hot and dry. The efforts to cough had never produced vomiting, nor had he lost his appetite. He did not experience any pain at the breast, even when too quick walking occasioned him to be out of breath, which easily happened. He had neither shivering nor night sweats, nor partial heats; and the diarrhœa had not re-appeared since the time of its disappearing, which has been mentioned. Though he remained out of bed for a considerable time, there was not any swelling of the legs. Even at the end of November there was no remarkable change in his situation.

During the first 15 days of December, the

sputa exhibited always small clots like baked rice swimming in the phlegm. The difficulty of breathing increased: the patient had one day even an attack of suffocation on waking. He had at times shivering and night sweats.

From the 16th to the 20th the expectoration was still in the same state, only some of the small clots were redish. At the same time there appeared a pain at the epigastrium, and in the space comprehended between the posterior edge of the shoulder blade and the back bone. The cheeks became red. He was delirious during the day on the 24th, and spit up some blood.

The 25th, oppression, pains towards the false ribs of the right side when he lay upon that side: his face was animated; his eye brighter than common; febrile state well marked.

From the 26th to the 28th slight diarrhœa; still a little blood in the sputum; continuance of fever. The 29th, traits of the countenance more sunk; diminution of the quantity of the sputum: towards the evening excessive

pain, which continued till the next morning. He died in a state of excessive marasmus, and without having had any œdema.

Opening of the Body.

The right cavity of the chest contained about three half-pints of transparent serum. The pleura, in the superior two-thirds of the costal portion was red, and covered with a very thin albuminous exudation, easily separated, and forming a very soft false membrane. A similar exudation covered the pulmonary portion of the pleura, which was neither red nor altered in any manner. The right lung was gorged with blood at its posterior part. The inferior three-fourths were sound, crepitating, and of a beautiful rose colour. The superior fourth was changed into a mass of granulations, whose size varied from that of a grain of millet to that of a grain of hemp seed. They had a shining aspect, and were semi-transparent. There were also many encysted tubercles of the size of a pea, containing tubercular matter, yellow and consistent, not yet degenerated. These miliary granulations left in their intervals but very little sound pul-

monary substance: this portion of the lung had also considerable hardness. In compressing it there escaped from the divided bronchial ramifications a yellow matter, puriform and rather ropy.

The left lung exhibited, in its superior third portion, an alteration altogether similar to that we have described; but it was not gorged with blood, as was the right lung at its posterior part. In its two inferior thirds it was quite sound, and of a handsome pale rose colour. The pleura of this side was quite sound.

The pericardium, the heart, and the large vessels were in a sound state.

The stomach and the intestines were not voluminous, but were without ulceration. The liver was sound and of a natural colour. The bladder contained a great quantity of highly coloured bile, in which there did not appear any calculous concretion. The spleen, larger by one third at least than in its ordinary state, was of the colour of chocolate, to which a little milk has been added. Its tissue was reduced

to a soft and homogeneous pulp, of a consistence similar to that of the cerebral substance. The glands of the mesentery and the pancreas were in a natural state.

Second Section.

OBSERVATIONS ON PHTHISIS WITH MELANOSIS.

Six particular observations will shew in an exact manner Phthisis with melanosis. This species is simple in *Obs.* 19 & 20; it is complicated with another species of Phthisis in *Obs.* 21, 22, 23 & 24. We may see examples of slight melanosis in other parts besides the lung in reading *Obs.* 21, 38, 43, & 44.

19th Observation.

Phthisis with Melanosis.

A surgeon, 52 years of age, of a bilious temperament, coughed, and spat much habitually for many years; and for nearly three had short and oppressive breathing: he was ad-

mitted at the Charité, the 12th of May, 1805. For a year back he had grown somewhat thinner; his cough had increased; he had a slight diarrhœa, and sweated in the night contrary to his usual habit. In short, for three weeks, his different complaints made him keep his bed. It is from this time only that he regarded himself as ill. Besides he said his chest was good, and he did not think he could become consumptive. Nevertheless his respiration exhaled a smell of very fœted pus, and his sputum was ropy, purulent, and slightly tinged with red; but all these symptoms, which continued to the time of his death, did not make him comprehend his disorder, nor troubled the perfect security he was in as to Phthisis. During the 10 days he was at the hospital, he had constantly the same fœted purulent expectoration, and his night sweats never left him. From the 15th to the 21st of May he had a slight diarrhœa. At length arrived at a state of extreme feebleness, though only moderately emaciated, he died the 22d of May, 1805.

Opening of the Body.

Head.—Every thing appeared sound.

Thorax.—The right lung adhered to the costal pleura by cellular flakes. The superior and middle lobes were sound; whilst the inferior had a brown colour, were more consistent than natural, and when pressed exuded a small quantity of clotted pus.

The left lung adhered strongly and intimately to all the contiguous parts: the costal pleura had acquired a thickness of nearly two lines, and a fibrous appearance. The lung had more consistence than that of a sound liver. In cutting into it, one saw that it was throughout of a shining black colour, and that it had the aspect of a metalic substance. All the bronchial ramifications contained a white or greyish pus, more or less grumous; and in some places there were empty cavities large enough to contain peas, or even large hasel nuts. All these cavities were lined with an albuminous membraniform layer. There were neither tubercles nor miliary granulations in the lungs. The heart was sound.

Abdomen.—The liver, spleen, pancreas, intestines, stomach, mesentery, kidneys, and bladder were in the natural state: there was

no ulceration in the intestines. There were some trichurid worms in the cœcum; but we may observe, that these are to be found in the cœcum of almost every subject.

20th Observation.

Phthisis with Melanosis.

A wig maker, 69 years of age, of a sanguine temperament, said he had been ill twelve months, when he was admitted at the Charité, the 28th December, 1805. For many years he had coughed and spat much, without experiencing any other complaint. He often expectorated white and opake sputum; nevertheless he thought himself in good health. He grew thin progressively, and had become so feeble that he could not support himself. He had a great appetite. During his stay at the hospital he exhibited always the same symptoms. His relations did not consider him sick, but only infirm, and proposed to place him in an old man's hospital; and he thought himself sufficiently well in spite of his cough and spitting when, on the 26th of January, he

lost his appetite all at once. The 27th he had fever and was very feeble; the 28th the fever took a very putrid character: his features sunk; the tongue became brown; the skin hot; and the 29th January, 1806, he died at 9 A.M.

Opening of the Body.

Head.—All was sound.

Thorax.—The heart was large, but very sound. The lungs were free at the lower part, and adhered by their superior lobes, particularly the right, where the adhesion was very firm.

The superior lobe of the right lung was covered by a fibrous membrane more than a line thick, very firm, and throughout adhering to the ribs. This lobe, as well as the middle lobe, was very hard; it sounded under the scalpel when it was cut into: its colour was as black as ebony. There were some empty cavities towards the base of these two lobes, lined by a membrane covered with pus. The sides of these cavities were all pierced with

round openings, and this portion of the lung had the appearance of a sponge, coarse and black. There was no tubercle. There was a white puriform matter in the bronchial ramifications. The inferior lobe exhibited also some small cavities surrounded with black substance.

The left lung exhibited the same changes as the right, but to a much less degree; and the superior lobe was not altered to any great depth, except at the posterior part.

Abdomen.—The liver, the spleen, the pancreas, the mesentery, the omentum, and the stomach were sound. The small intestines shewed some redness, but there was no ulceration: they were much contracted within themselves, and their sides were pretty hard. The large intestines, the kidneys, and the bladder, were in a natural state.

21st Observation.

Phthisis with Melanosis united to Tubercular Phthisis, in a man affected with a scirrhus of the stomach, accompanied with peritonitis and anasarca.

A wig maker, 62 years of age, of a bilious temperament, subject for a long time tô cough and spit, complained of being sick for seven months, when he was received at the Charité, the 12th July, 1804. The disease for which he came to the hospital had commenced in December 1803, by a considerable swelling of the belly, and by loss of appetite. At the end of some months the legs began to swell in the evenings; afterwards the thighs, and even the belly, which moreover was at last affected with tympanitis. He had had abdominal pains, but no vomiting. The cough and expectoration had increased, and he grew much thinner: he was besides very feeble; and the day of his entrance at the Charité he had lived six months entirely on soups, broth, and wine. He had long had two inguinal hernias, which gave him no trouble.

The 13th July the preceding symptoms continued; the thinness was very remarkable; the belly sounded like a drum when struck, but there was no fluctuation. The pains which he experienced had their seat near the spine. Though he had not vomited any, there was a remarkable sinking under the cheek bones.

The skin was yellow, dirty, and earthy. The pulse was neither frequent nor tense, but appeared in its natural state. The legs and thighs were œdematous.

The cough continued, and produced the expectoration of white thick matter formed by distinct threads, some opake white, others without colour and transparent, well connected, and forming parallel striæ.

He remained 14 days at the hospital, growing weaker by degrees: he was prescribed pectoral medicines combined with diuretics. The swelling increased, instead of decreasing: the belly was still inflated, and became very painful. The pain increased much on pressure; the cough continued; the spitting was purulent or puriform. He died the 25th July, 1804, at 4 A. M.

Opening of the Body.

Head.—All was sound within the skull.

Thorax.—There was about a pint of serum in the left cavity of the thorax. The left lung

was free: it inclosed in its interior, particularly at its root, many tubercles of a plaister coloured grey, lenticular and pea-form, some still solid, others that had suppurated; and all surrounded with a small portion of pulmonary tissue, black and hard. The right lung was voluminous; it adhered a little to the costal pleura, was compact, hardened, and as black as ebony in its whole extent, and penetrated by a great number of small excavations which would have lodged a lentil, pea, bean, filbert, and even larger bodies. Each of these excavations was lined by a membrane covered with white pus. Amongst these cavities some were almost insulated; others communicated with one another by irregular openings, and with the bronchiæ by round openings. The heart was sound: it contained yellow clots distended with serum, as is observed in almost all subjects who die dropsical.

Abdomen.—In the abdomen there were about three pints of a milky or flaky serum. The intestines were a little inflated with gas. The peritonæum exhibited over its whole surface, as well upon the sides of the abdomen as upon the different viscera, a little redness and

a slight thickening: every where it was covered by a layer more or less thick of soft albumen, which was puriform in some places, membraniform in others, or deposited in cellular layers, which served as the means of adherence. It was principally at the convex surface of the liver, and at the edges of the intestinal circumvolutions, that the albuminous layer exhibited this last disposition.

There were in this subject two inguinal hernias, one on each side. The herniary sack of the right side was empty and very spacious, the peritonæum which formed it being from one to two lines thick, of the consistence of the skin of bacon, and of a manifestly fibrous structure. The same disposition existed, but in a much less degree, in the left herniary sack. This last inclosed a portion of omentum, which adhered to it intimately at a little distance from the testicle.

The liver was of a very pale yellow, and was not fat. The spleen, of which the parenchyme appeared sound, was surrounded like the liver by an albuminous layer. The pancreas was very hard, but otherwise in the natural state.

The stomach had the ordinary volume: the pylorus was very thin, as well as the cardia. Towards the bottom of the œsophagus, the mucous membrane was a little red. At a finger's breadth from the cardia, there was a tumour which had its seat upon the small curvature of the stomach. It was a fungous ulcerated and cancerous excrescence, almost as large as the palm of the hand, with elevated and reverted edges, an unequal and irregular surface. In this place the sides of the stomach were more than an inch thick; and this thickness was owing to the degeneracy of the muscular and mucous membranes, which might still be seen. In the degenerated portions one observed a tissue composed of fibrous bundles framed in different ways of small, solid, and continuous miliary and lenticular sized, but irregular formed bodies, some of a dull, others opake white, others altogether transparent and of a blackish blue. The rest of the stomach was very sound. The intestinal passage was much distended: the peritonæal coat was covered with a little albumen, and exhibited in different places spots of the colour of ebony. There were seen in other places small tubercular miliary points: and in opening the intestines

at these places, there were found small round incipient ulcerations, or small miliary tubercles placed under the mucous membrane of the small intestines. The kidneys were discoloured, and the bladder sound.

Reflections.—The two patients *(Obs.* 19 *&* 20*)* furnish examples of Phthisis with melanosis in its simple state. Obs. 20 exhibits at the same time melanosis of the lung, and that of some small portions of the peritonæum; and besides tubercles in the lung and in the intestines, in the stomach is a cancerous ulceration, and in the peritonæal coats an acute inflammation. There were also united in the same individual many serious diseases independent of one another. The peritonitis itself did not appear to depend on the disease of the stomach; for the injury to this viscus was not upon the external surface, but only on the internal: hence with this patient there was the tubercular degeneracy, melanosis, and inflammation. This example alone proves to us the futility of the theories by which it was pretended that a great part of these diseases, being of a different nature, could not be found united in the same person. We meet again here with an example

of ulcer of the stomach which had not given rise to any vomiting. I have observed a great number of analogous facts, which I shall publish in the sequel, in treating of cancerous degeneracy of different parts of the body.

22d Observation.

(By M. Moutard Martin, D. M. P.)

Granular Phthisis with Melanosis complicated with some Tubercles, in a woman afflicted with asthenic gout.

Marie-Anne C——, of a sanguine bilious temperament, had not in her infancy either humours or glandular obstruction; nor in her youth was she subject to nasal hæmorrhages. At 15 years of age, she had for more than a month vomitings of blood after each meal, not accompanied or preceded by cough. After an interval of three years from this time, the catamenia began to appear, and then her health was pretty good.

The 2d of May, 1807, this woman, 72

years of age, was admitted at the Charité. She had for eighteen months back been attacked with gout. The articulations of the fingers and wrists, as well as the left knee, were the seat of a swelling without redness. The pain was moderate, but there was much difficulty in motion: she had grown very thin for three months, and only dated her disorder from this time. For a month past she coughed and spat profusely. The skin was harsh and dry to the touch, but of a pretty gentle heat: she had a complexion of an earthy yellow, as in intermittent fevers. The cough was only moderately frequent—it had been much more so. The sputum was abundant, of a greenish yellow colour, and formed strongly marked streaks upon the sides of the spitting can. The pulse was frequent and moderately strong. The cheeks were very red: no appetite. The thinness was such, that one perceived in the most distinct manner not only the beating of the aorta, but even its diameter through the sides of the abdomen. There was neither shivering nor night sweats, these having ceased for eight days; nor were there any partial heats, efforts to vomit, or diarrhœa. During the two months that she had passed at the hos-

pital she spat always very abundantly: the hectic fever did not quit her; and she suffered very little from the gout. She died in the first days of July, being reduced to a skeleton.

Opening of the Body.

The head was not opened.

The right lung, in its upper fourth part, was hard, black, and cracked under the scalpel; when cut into, its tissue looked somewhat like that of a particular species of granite. It was composed of an infinity of round granulations of a slate coloured black, and of the size of a pea, united by a substance more soft, but of the same colour. In compressing this tissue, there flowed from the orifices of the bronchiæ a matter which appeared purulent, and perfectly like that which was expectorated during life. In the inferior three quarters this lung was sound. The left lung exhibited in its whole extent the same alteration as the superior quarter of the right lung. There were besides some tubercles suppurated in different places.

The heart and the large vessels did not present any thing remarkable. The belly contained a little turbid serum of a green colour, in which albuminous flakes floated. Many false membranes, very feeble and recent, united the anterior sides of the abdomen with the intestines, which were distended with gas. The whole surface of the peritonæum was rather red: the viscera contained in its cavity did not appear altered.

The articulation of the right knee contained flakes of a greenish yellow colour, like jelly or very soft half-melted fat, included in cellular tissue extremely thin and without resistance. The articular surfaces were a little more red than in the natural state. On the outside of the thigh, above the fibrous tissue which covers it near the external condyle, there was, for the extent of about two inches, a red surface covered with pus, in colour like the matter contained in the tibio-femoral articulation, but much more consistent, and rather resembling the mucous of the nose, fluid and yellow. The radio-carpal articulation and that of the carpal bones with one another, also

contained pus; but it was very liquid, contained small flakes, and had a green colour. The articular surfaces were rather red.

23d Observation.

(By M. Moutard Martin, D. M. P.)

Tubercular Phthisis complicated with Melanosis.

Peter B——, tobacco dealer, 62 years of age, of a lymphatic sanguine temperament, did not know the diseases his parents were subject to. His infancy was exempt from the ordinary diseases of that age. He had never had glandular obstruction, and believed he never had measles or small pox. He experienced in his youth many diseases ascribable to excess in wine, and he had often contracted the venereal disease. At 38 years of age he had a serious disorder, which only yielded to the use of baths; and since, he had experienced no other complaint but frequent acts of intemperance. At the age of 61 he had a cold, which continued about three months, and which was accompanied with a loss of appetite, and an abundant expectoration of

thick and yellow sputa. Few days occurred in which Peter B—— did not cough, when he was again seized with a very violent coughing which continued sometimes more than an hour before bringing on any expectoration. The sputa differed much from those which had been expectorated in the first cold. They were more white and less thick. In spite of the violence of the cough they were never attended with streaks of blood; he had never either shivering, or partial heats, or diarrhœa; but he grew thin perceptibly, and had great difficulty in breathing.

The 6th of June, 1806, the period of his admission at the Charité, the cough had ceased six weeks, but the difficulty of breathing continued. He was much oppressed when erect, though the respiration was quite free when he was in bed, in whatsoever position he lay. The pulse was regular and without frequency. The pulsation of the heart was not more extensively perceptible than what is usual. The tongue was clean, though the appetite was very moderate. There was neither constipation nor diarrhœa. The emaciation was considerable.

From the 6th of June to the 16th the patient grew weaker every day, though he did not cough; the pulse was regular and not frequent; there was neither diarrhœa nor night sweats; the appetite improved, though the emaciation continued to make progress. On the 17th, fever supervened; 18th, the tongue was covered with a brown coat at the centre only, and remained moist. The respiration was free, but rather frequent; the pulse small and very frequent. The epigastrium became painful when it was pressed.

The 19th, towards eight in the morning, the tongue was still moist; the brown covering which occupied the centre was not more extended. The pulse was extremely small and feeble: the respiration appeared much oppressed; it was short, frequent, accompanied with a rising and sinking of the larynx: nevertheless the cough did not return; he said he breathed with ease, and found himself well. For some moments his ideas were not connected; and he died the same day at 11 A. M. at a moment when he was not suffering, and did not seem even to suspect the danger of his situation. He took a pinch of snuff when

dying, to the great astonishment of another patient whom he was talking to. He was reduced to a state of excessive marasmus, and had never been dropsical.

Opening of the Body.

The external parts were not remarkable, except from the extreme emaciation, and a particular conformation of the chest. This cavity was large enough in its transverse diameter; but it was contracted from before backwards, by the arrangement of the bony sides. The sternum projected before, as well as the cartilages with which it was connected; whilst the anterior extremities of the ribs were bent backwards, so as to give place to a longitudinal hollow upon the sides of the sternum, in the place which corresponds to the union of the cartilages with the ribs.

On opening the chest, there ran out from the left cavity about three pints of transparent serum. The pleura was red, and evidently thick in the whole extent of the portion corresponding to the sides of the chest. This membrane presented less alteration, in proportion

as it approached nearer to where it reflects itself upon the lung: all the portion which covers this viscus was sound; it was only thick for a small extent on the external surface of the lung. The pulmonary tissue presented great alterations; it appeared sound enough in its middle part, immediately under the pleura, to the extent of the palm of the hand. But at less than half an inch deep the tubercles were united in such a manner, that the pulmonary substance itself had disappeared. These tubercles were of a greyish yellow towards the centre. The grey became deeper and deeper towards the edges, even till the colour was black. In the inferior two-thirds of the lung there were some portions of it capable of admitting air, and which served to separate masses of tubercles; but it was impossible for the air to penetrate the upper third portion of the lung; besides, this portion put into water, sunk quickly to the bottom. Its tissue of a blackish grey, like the colour of slate, was mixed with yellow spots of various size, from that of a grain of millet to a lentil. These spots were not rounded, as it might seem from these comparisons. The intimate mixture of the black and yellow colour seemed incomplete. There

could not be any cyst discovered in which the tubercular matter was amassed; it had still much consistence.

On the right side, the costal was intimately united to the pulmonary pleura in its whole extent. In a large surface it was about three lines thick. Its density was considerable, and its colour came very near to that of a cartilage. The lung in its inferior third exhibited only some tubercles; but in its superior two-thirds the nature of its tissue was so changed, and its density was so great, that it appeared altogether impenetrable to the air. It was almost entirely converted into a mass of tubercles, which varied as to size from a grain of millet to a filbert. Their consistence was not less various, and many had entirely suppurated. Besides, at the superior part of the lung were cavities, whose sides, spread with thick pus of a deep yellow colour, were evidently not covered by any membrane. The substance of the lung could not be distinguished; one observed a mixture of small points of a deep black colour, surrounded by matter of a slate colour, mixed with a substance that was grey, approaching to yellow. This last was tubercular matter.

The heart presented on its anterior surface a white spot as large as a half-crown piece. It was formed by an accidental membrane easily detached. The cavities of the heart contained, as well as the aorta, a large quantity of very black blood, not coagulated.

The stomach and the intestines were perfectly sound; there was no alteration within them. The liver, spleen, and other abdominal viscera were natural.

24th Observation.

(By M. Moutard Martin, D. M. P.)

Tubercular Phthisis at the last degree—Tubercles in the dorsal vertebræ—Shades of Melanosis.

John Peter Hector, a servant, 25 years of age, an African negro, said he had been ill one month when he was admitted at the Charité, the 10th February, 1807. He complained of a pain which affected him between the shoulders, and was perceived also at the stomach.

This pain was constant, and subject to exacerbations for many hours, during which he suffered excessively. A dry cough, which arose from time to time, increased his sufferings much; nevertheless he was not grown thin. During his stay in the hospital the cough became insensibly more frequent, and it occasioned, after some time, an expectoration of opake mucous, not in great quantity, surrounded with transparent glairy and slightly tenacious matter. The wasting began to shew itself, and increased every day. The pulse was often quick; and at times there were besides other symptoms which did not admit a doubt of a febrile state. The appetite was still bad, and even sometimes failed. Towards the last he often felt pain of the breast, and particularly in his right side; and a little before his death he was seized with a diarrhœa. He continued also to cough, but always spat little. He preserved his senses to the last moment, and died the 24th April, at 9 A. M. not much emaciated.

Opening of the Body.

The skull was not opened.

The heart was sound, but larger than suited the stature of the subject. Its right cavities contained much black blood, somewhat coagulated. The left auricle and ventricle contained but little. The cellular tissue which occupies the base of the heart, and that which unites it to the serous fold of the pericardium, were the seat of a very considerable serous effusion.

The right lung, free throughout, except behind for a small extent, was crepitating and sound: there was not any tubercle to be perceived.

The left lung, hard in almost its whole extent, and adherent to the costal pleura in many places, but above all at the posterior part, was filled with tubercles of various form, of which the middle size was that of a cherry stone. These tubercles were of the yellow of a canary bird, and of a consistence similar to that of a thick paste made with very fine powder: they were found also in many of the bronchial glands of this lung. Those which were in the proper tissue of the viscus, formed three masses of the size nearly of the

fist ; so that one might have regarded each as one entire tubercle, if their interior had not been divided by a great number of small black points, which were perhaps small portions of pulmonary substance, compressed and transformed into melanosis. These three masses of tubercles disposed vertically, were separated by considerable portions of pulmonary tissue perfectly sound, so that one might remove them.

In elevating the lungs, one saw that they adhered each to a tumour situated along the spine. That on the left side, of the size of a pullet's egg, extended from the third to the fifth dorsal vertebra, upon the lateral part of which it was situated. It was continuous with one of the tubercular masses which were found in the lung. The pleura appeared to have been destroyed in this place. This tumour was entirely formed of tubercular matter softened, and of the consistence of thick cream. It touched the naked body of the two vertebræ mentioned above, which it had in fact destroyed laterally, as an aneurysm would have done. It also penetrated the articulations of the corresponding ribs, after having de-

stroyed their means of union either altogether or in part. In the neighbourhood of the tumour the ribs themselves were penetrated with tubercular matter, and broke with great ease in those places where they exhibited a canary bird yellow colour, instead of the natural white and red. Posteriorly the tubercular matter penetrated into the substance of the muscles of the vertebral canal, formed there foci of the size of a small walnut, and also others still smaller. From space to space this tumour was inclosed in a thin cyst, demi-cartilaginous and of a silver grey. Elsewhere it had no other covering than the muscular tissue, which began to take in these places a membranous aspect. Upon the principal tumour, and of which those that I have been describing were only subdivisions, the cellular tissue above the pleura was injected with small vessels gorged with blood.

The tumour of the right side extended from the second to the fourth dorsal vertebra. It resembled perfectly that we have been describing, except that it penetrated less deeply into the muscles of the vertebral canal. It adhered to the posterior and superior part of the right

lung, which presented adhesions in this place alone; which, conjointly with the redness of the vessels found under the pleura, seem to prove a sort of inflammation occasioned by the developement of these tumours. In the place of this adhesion, the lung exhibited a depression in form of a small cup, sufficiently large to lodge the half of a nut, and there the anterior portion of the tumour was received, which adhered to it by the intervention of an accidental membrane pretty thick and dense. Under this false membrane the pulmonary pleura was sound. This tumour, like that of the left side, sunk into the lateral part of the body of the vertebræ, and penetrated, though a little less deeply, into the muscles of the back: the extremities of the corresponding ribs appeared also a little affected with tubercular matter. The spine, examined in the rest of its extent, did not shew any injury. The digestive organs were found sound, pale, and not voluminous. The spleen exhibited some cellular adhesions, and a cartilaginous layer pretty soft in its convex surface. The ascending and transverse portions of the colon were united to the liver by cellular adhesions. A small calculus, in form of a star, and as hard as a stone, occupied

the interior of a mesenteric gland, where it seemed inclosed in a cellular covering.

Reflections on the preceding Observations.

Amongst the six Observations on Phthisis with melanosis, which I have introduced into this section, there are only three in which the substance of the lung had acquired a very black colour. In the three last subjects, the alteration in this viscus exhibited only the first shade of melanosis: the portions already altered were also much less black than they would have been, if the melanosis had arrived at its last degree. Usually, when Phthisis with melanosis is complicated with another kind of Phthisis, this complication accelerates the death of the patient, and the altered portions of the lung are less black, and less hard than in the case of Phthisis with simple melanosis. Nevertheless, if this last is not complicated, but with a granular Phthisis, the death of the patient is but little accelerated by this complication, and the parts of the lung affected with melanosis become very hard and very black.

N. B. At the moment when this section was nearly printed, M. Moutard-Martin communicated an observation on Phthisis with melanosis, complicated with granular Phthisis, which I think I ought to insert here, because it appears to me very interesting in many respects, and very proper to confirm what I have been advancing respecting melanosis.

M. B——, a perfumer, 48 years of age, of middle stature, of a bilious sanguine temperament, and subject to hæmorrhoids, having grown very plump for ten years, of a morose character, and allowing himself to be easily put out of humour, was born of a father who had a dartre at the genital organs, and of a mother whose countenance was affected with pimples. Two of his sisters are equally troubled with pimples. The father died at 72 years of age, and the mother at 52.

M. B—— had no glandular obstruction in his infancy; but he was affected with other diseases, such as the measles and small pox. At 11 years he had a catarrh of the chest, which gave way to antiplogistics and bleeding. After some days' convalescence he had a re-

lapse, in which he grew so much worse as to be despaired of. His convalescence was very slow, many months having elapsed before the health was completely re-established. From the age of 12 to 14 the countenance began to break out with pimples. At 15 hæmorrhoids supervened, which, from their first appearance, flowed very often, but without any regularity. He was besides in very good health.

At the age of 33 years, stagnation in business, and consequent embarrassment in his circumstances, together with some domestic troubles, began to affect his health. He became very subject to violent pain of the head. At 38 years he had a continued fever, which lasted 12 days. After this disease he was pretty well for some months; but the pains of the head were not long before they returned with the same violence as before, and the pimples which covered the countenance made great progress: all the face, but particularly the cheeks and the nose, were pimpled, though he committed no excess. The piles continued to flow as before.

At 48 years of age, M. B. who had scarcely ever had a cold, was taken with a shortness of

breathing, without awaking with a start, or palpitation, or any other symptom which accompanies disease of the heart. Two months after, he began to cough as in an ordinary cold, and to expectorate mucous matter, which, after three or four months from the commencement of this complaint, which was thought a cold, was tinged with blood: sometimes he spat even pure blood from the violence of his cough. Six months after the attack of the cough, (20th August, 1809) when I began to see the patient, he had already lost much of his plumpness; his flesh was not firm, his face was rather less pimpled than it had been; the hæmorrhoids had ceased discharging for some months; the slightest contradiction flushed his countenance. The cough was moderately frequent during the day, but fatiguing for two or three hours in the morning: the spits were mucous, white, semi-transparent, slimy, and mixed with frothy saliva. He had frequent desire to vomit, particularly in a morning. The palm of the hands was almost always burning and dry; he had frequent night sweats; slight chills occurred at long intervals, sometimes after many days, particularly after changes in the weather. The pulse was frequent and sharp, even when

he was easy. The appetite was still moderate. The digestion was not difficult; there was no diarrhœa; the swelled gums bled easily; and often spontaneous lassitude affected him, when he had indulged in melancholy ideas for some time. Leeches to the arms, a succession of blisters to the breast, and the use of medicines to his cough, mild and slightly incisive, united to opiates, produced an amendment for near a month: the disease then resuming, or rather continuing to follow its primitive course, the employment of these means had not the same success, and the disorder increased more and more; the various remedies which were administered, such as sulphur waters, balsamics, resins, vulneraries, and others, not appearing to produce the least amendment. In the course of January 1810, M. B. whose cough began eleven months before, was seized with a constant pain in the larynx, and his voice also left him: it was with difficulty he made himself understood, even when listened to attentively. Very soon he was seized with diarrhœa, which only stopped for short intervals to give place to night sweats. He began to feel a dull pain in the right hypochondre, which he said was rather a constraint than a pain. This was

more marked by the shaking of the cough, and was then a real pain; the touch did not discover any obstruction. The abdomen being pretty soft, did not grow less in the same proportion with the other parts; it included always much gas, which shewed itself from slight percussion on different parts. He got scarcely any sleep: the appetite was entirely lost; food the most rare, as well as the most simple, disgusted him the moment he conveyed it to his mouth. In the course of February the belly began to present an obscure fluctuation: the patient took an aversion to all sorts of drink, except weak wine and water. In the months of March and April the fluctuation became more apparent, and the strength sunk much. The expectoration continued the same: it did not present the appearance of pus; it was always transparent, slimy; and I sometimes, but very seldom, saw streaks of blood. Nevertheless, the 15th April, M. B. was seized with an hæmoptysis, in which he expectorated about eight ounces of blood. From that time the weakness, which was already very great, was greatly increased; the patient did not leave his bed; the sputa looked purulent, and remained always dull. The 27th August there was a

second hæmoptysis, less abundant than the former. The 28th the expectoration was almost entirely suppressed; the face was lengthened; the eyes widely open, as if astonished; the alæ nasi seemed to beat. The 29th the tongue was dry, and covered, as well as the teeth and lips, with a brown covering. This distress continued till seven in the evening. The patient kept his senses to the last moment, though he was not able to articulate a single word for 24 hours.

(This man had always regarded his disease as mortal. He seemed not to yield but with regret to the hope that was afforded him, and he sunk into his gloomy reflections so soon as he was left to himself.)

Opening of the Body, the 1st of May, 1810, by M. M. Duplon & Moutard Martin, Doctors in Medicine.

External state.—The subject, though emaciated, from the state of *embonpoint* he had experienced, was not in a state of marasmus.

The chest sounded well on percussion through its whole extent. The belly exhibited,

as during life, an evident fluctuation, and a swelling produced by gas. The liver did not sink below the false ribs. The flesh was flabby.

The skull was not opened.

The larynx was not ulcerated: the ventricles and the ligaments which form the rima glottidis were in their ordinary state. The mucous membrane which covers the thyroid and ericoid cartilages, was a little thickened and red; but the inflammation did not extend itself beyond these cartilages, and one did not see any trace of it in the trachea.

Thorax.—The pleura did not contain any liquid.

The right lung, free from adhesion, appeared pretty sound to the eye; but the touch discovered a great number of tumours which varied as to size, from a pea to a walnut. These tumours were very hard, formed half of numerous miliary granulations, and half of a substance black as ink. This black substance (designated under the name of melanosis) was very hard, and penetrated in various ways

the tumours where one perceived the miliary granulations, which were of a yellowish grey colour, and semi-transparent. The upper third part of the lung was almost entirely filled with these tumours, which left between each other very little of the pulmonary substance, compressed and scarcely capable of admitting air. In the lower two-thirds of this lung, these tumours, though very numerous, were not so crowded: none of them contained pus, nor seemed disposed to become soft. The posterior part of the lung was obstructed with a great quantity of blood and serum.

The left lung, strongly united in the whole extent of its convex surface to the costal pleura by long standing cellular adhesions, very difficult to destroy, and almost always of a grey colour internally. There was in its upper part an open cavity, large enough to contain easily an Indian fowl's egg. This cavity was rugged; its sides were covered with a small quantity of greyish and thick pus, which had not a bad odour: there appeared no cyst or membrane, after having removed the pus with the back of the scalpel. One did not see then any thing but a polished surface, and some very

small holes, of which the edges were equally smooth. Stays, which appeared evidently composed of vessels, united the opposite sides of this cavity. These stays were much thinner in the middle of their length, than in the portions near the sides of the focus. The rest of the lung inclosed a great number of cavities, the major part of which contained grey pus, and had their sides covered by a species of very soft albuminous matter, under which was found a shining smooth surface, without any appearance of membrane. The cavities varied in extent; the largest would have contained a partridge's egg. We did not perceive, in any point of the left lung, either miliary granulation or tubercular matter: there were only some masses of insulated melanosis, even in the places where the ulcerations were not very extensive. Behind, this lung, as well as the right, was gorged with serum and blood. The pericardium did not contain serum.

The heart, of an ordinary size, was very pale, remarkably florid, and almost void of blood. It was as if flattened. Its orifices were quite free. The large vessels were in a natural state.

Abdomen.—The cavity of the peritonæum contained about three pints of transparent serum. The omentum was very small: the mesentery and omental appendices were charged with fat.

The liver had its usual size; it was as if veined with a deep and clear yellow. Its surface was rough and like granite, (which takes place usually when there is water in the belly.) The parts the most projecting under the peritoneal membrane were the most pale, and were converted into a fatty matter. In the interior of its tissue the fatty matter was equally seen mixed with the substance of the liver, of which the alteration was not yet so decided. The bladder contained a sufficient quantity of bile, with little colour, and not any concretions.

The spleen, rather larger than usual, was a little soft, but sound. The kidneys, surrounded by a sufficient quantity of fat, exhibited nothing remarkable, any more than the other viscera contained in the abdomen and pelvis.

Third Section.

OBSERVATIONS ON THE ULCEROUS PHTHISIS.

The simple ulcerous Phthisis is a disease rather rare; its complications with other species of Phthisis are not very common, and the state of the ulcer in the ulcerous Phthisis is altogether different from that one observes in ulcerations which are the result of other species of Phthisis. The proofs and the developement of these different propositions will be found in the particular histories which compose this section. Obs. 25 & 26 exhibit this disease in its simple state: the others explain its complications with other species of Phthisis.

25th Observation.

Ulcerous Phthisis.

An organ player, 17 years of age, of a sanguine temperament and middle stature, and of rather a delicate complexion, had the chest moderately spacious, blue eyes, eye-brows

and hair almost black, not apparently liable to Phthisis.

In the beginning of the month of September, 1806, he lost his appetite ; was distressed with thirst, general uneasiness, lassitude, and headache: he consulted an apothecary, who made him take a vomit: his complaint continued eight days. At the end of this time he had a sort of convalescence, during which he enjoyed but doubtful health, and began to cough. Some days after, (24th September) he felt for the first time a pain in the left side of the breast. The cough became rather strong: it was followed by a glairy mucous expectoration. The pain of the side was not constant, but it persisted still at the end of seven or eight days, and to get quit of it he consulted a surgeon, who made him apply a blister to the painful part. Three days after he spat blood twice, and the next day, 4th October, he was received at the Charité. The 5th October he was examined. He had lost much of his *embonpoint* ; had not any bad taste in his mouth, and but little appetite; he experienced urgent thirst; the tongue was red and dry; the pulse was frequent, pretty free and regular ; the skin hot

and dry: the belly distended, hard and costive; urine as in health. Though he had no pain of the breast, he experienced difficulty at times in lying on the left side. His breathing was deep, and he coughed much. The expectoration, which was glairy and mucous, contained flakes that were yellow, green, thick, opake, and of a fœtid odour. He did not consider himself ill till within about twelve days.

During near a month which this young man passed at the Charité, he grew very thin, but he did not arrive at the last degree of marasmus. The 3d of November, at ten in the evening, he took some broth, and half an hour after he was found dead, and bathed in his blood, which was observed still running from his nose and mouth. He was only heard to utter some stifled cries.

Opening of the Body.

External state.—The body was not much emaciated, and he was far from the state of marasmus which most phthisical persons arrive at. There was not the least œdema.

Thorax.—The lungs swam nearly in half a pint of serum. They appeared very sound; but the right was not so. There was at its posterior surface, an ulcer as large as the palm of the hand. The ulcer was superficial and covered with a black sanies, the excessive fœtidness of which had some analogy with the odour of gangrenous ulcers. This lung inclosed besides in its interior many other ulcers: but there were no tubercles. To be assured that in fact there were none, the most exact search was made, and the lung was cut in all ways; but this served only to convince us that the disorganization of the lung was primary, and that the disease was a simple ulcerous Phthisis, and not a complication of ulcerous Phthisis with tubercular Phthisis. The hæmorrhage which destroyed him, appeared to have its seat in the ulcer of the lungs.

26th Observation.

Ulcerous Phthisis.

A hackney coachman, 45 years of age, of a sanguine temperament, was admitted at the

Charité the 8th of May, 1805. Three years before he had swallowed a bone, and after this accident he began to cough and to spit. Nothing was able to calm these symptoms, which were even increased. Háving lost his health, this unfortunate man with difficulty gained a living, and did not always make use of wholesome food. His cough became very troublesome and very frequent; he expectorated much glairy matter, mixed with some puriform sputa: but he was not grown thin, and his face was very red. He had often spat blood, and had had the feet œdematous. From the time of his entrance into the hospital the cough continued; the sputum was abundant, glairy, and mixed with purulent or puriform streaks. The respiration was short; the pulse elevated, frequent, full and soft. There was no tumultuous movement at the region of the heart, and the appetite kept up pretty well. There was no swelling of the feet.

This patient remained 57 days at the Charité; he expectorated more than a pint in 24 hours, and towards the last his breath exhaled an odour insufferably offensive. Nevertheless he eat still a half portion of aliment,

and had no more diarrhœa. He grew thin by degrees. At length the appetite diminished, and then ceased altogether. The diarrhœa shewed itself, the thinness became excessive; sharp pains supervened in the right side of the breast, and the patient died the 14th July, 1805, at 9 A. M.

Opening of the Body.

External state.—Extreme emaciation.

Head was not opened.

Chest.—The lungs adhered to the contiguous parts: they were hard, and their interior contained deep excavations, rugged, and communicating with one another, of all sizes, from what would hold a pea, to what would be required to contain a chesnut, or one or even two pullet's eggs. No distinct membrane appeared to cover the surface of these ulcerations, which exhaled a very fœtid odour. There was no foreign body in the lungs to which one could attribute the origin of this disease. The right lung was more deeply affected than the left; it had more extensive adhesions; its surface

was more red, and the cavities which it inclosed internally were more numerous and larger.

The heart was sound, but voluminous.

Abdomen.—The liver, the spleen, and the pancreas appeared natural; the mesenteric glands were a little enlarged, but without tubercular degeneracy. The stomach was sound externally. Internally its mucous membrane was a little injected, and marked besides in different places with spots deeply stained with brown red. The intestines appeared sound externally, and had some small ulcerations at their internal surface. The urinary and genital organs were natural.

Note.—Though I only give two examples of simple ulcerous Phthisis, I have many times observed this species without any complication. In the two observations I have reported there were many ulcers in the lung: but in almost all the other cases of simple ulcerous Phthisis, of which I have collected the history, there was only one ulcer placed in the centre of one lobe. This ulcer formed a cavity which would sometimes contain the fist. Bronchial ramifica-

tions, and large blood vessels, which were still entire, and seemed as if they had been dissected, generally traversed the excavation in different ways. The cavity was at other times quite empty, or without trace of any blood vessel or bronchial ramification. In all these cases there was not any membrane lining the ulcer, and the lung on the opposite side was quite sound. All the subjects had attained the last degree of marasmus. I have not opened any in which the simple ulcerous Phthisis was still at its first degree.

27th Observation.

(By M. Moutard Martin, D. M. P.)

Ulcerous Consumption of the Lungs, united with Laryngeal Phthisis.

Marie-Anne P——, wife of a hair dresser, 42 years of age, of a bilious sanguine temperament, had had in her infancy much breaking out, and also glandular obstruction which did uot suppurate. She menstructed at 15 years of age. In the years which followed this period, she had many intermittent fevers, all

more or less obstinate: she had one which lasted two years without interruption. At 27 years of age she quitted her own country, and was not afterwards attacked with intermittent fever. At 38 she married: had no child.

At 41 she never had had a cold, but a long time back she had often experienced complaints of the throat, which were always preceded for some days by a slight dry cough, which ceased also with the pain in the throat. Six months before coming into the hospital she had began to experience variations in the menstrual discharge, and from that time she began to cough. For five months the cough was followed with expectoration of an aqueous matter. In the month of February the sputa became yellow, with small whitish points. The 18th of March, 1807, they were still of the same nature: at this time the patient was abmitted at the hospital. She had never spat blood. For 20 days back she had often palpitations of the heart, and started on awaking; but the breathing continued free. The voice was altered, and as if it was lost. The cough returned by violent fits, and was not very frequent. A slight

pain was felt under the left breast: the patient often complained of a burning heat at the palm of the hands and the sole of the feet. She had frequent desire to vomit, shiverings from time to time, and sometimes, though seldom, night sweats; she observed, that even in health, she sometimes experienced shiverings. The pulse was rather frequent, the skin dry and hot; the constipation was habitual for the last six months, and she had grown much thinner for some time, but particularly within the 20 days previous to her admission. She still preserved a tolerably marked plumpness both muscular and from fat. Her face was little coloured; her eyes were hollow and discoloured; her tongue was yellowish in the middle, and of a lively red at the edges. She had a bad taste in the mouth, and there was a constant itching at the end of the nose.

During the month of April the symptoms continued, and for the first days she complained of a constant pain in the throat, which did not seem much inflamed. The sharpest pain was at the upper part of the larynx, particularly on the left side, and extended to the ear. She experienced at the same time rending

pains in the chest and in the breasts. During the month of May she had very frequently a stoppage of breath, during which she appeared on the point of being suffocated. She was in the most violent agitation; and for a long time, knowing all the danger of her situation, she prayed for death as the termination of her sufferings. The severity of her pain of the chest seemed, at last, to have made her forget her complaint of the throat. She became much emaciated, and after being in agony many days, she expired the 6th of June.

Opening of the Body.

The head was not opened.

The larynx exhibited two ulcerations: one very superficial and of the size of a small lentil, occupied the superior edge of the right ventricle; the other deeper, and half as broad again, was situated upon the superior edge of the left ventricle. The trachea was in the natural state.

The two lungs adhered to the costal pleura by some cellular layers. The right soft, cre-

pitating, and sound. The left presented in its superior part a large cavity which would contain an India fowl's egg, and of which the sides were covered with grey pus.

There was found in the rest of its extent a great number of ulcerations which were smaller, but of the same nature. One could not discover in any part of the lungs either tubercular matter or cyst. Besides the whole of this lung appeared to be the seat of a chronic inflammation. It was reduced to a small volume: its tissue was hard and compact: it had a shining aspect on being cut into, which gave it some resemblance to the matter of schirri.

The heart and its large vessels were sound.

The stomach and intestines were in the natural state. The liver, a little larger than in the natural state, was fat. The spleen, the kidneys, and the other viscera were sound.

28th Observation.

Ulcerous Phthisis complicated with Tubercular Phthisis, in an individual who had a well marked tubercular Diathesis.

Louis D——, of no particular calling, 22 years of age, having black hair, and all the appearances of a sanguine temperament, had been sick for 14 months, when he was admitted at the Charité the 24th August, 1803. His disease had began by a cough and expectoration. This cough had long appeared slight; but for more than six months it had increased, and had obliged him for some time to keep quiet. The hectic fever was combined with it. There had been night sweats and diarrhœa at intervals. The emaciation made daily progress; in fact, for 15 days back, the appetite had disappeared; the tongue was covered with a yellow surface, disposed in two lateral bands, and for ten days the voice was extinguished; the debility was extreme, and the patient could not quit his bed. August 25th, he could not rest when he lay otherwise than on the right side: he was much emaciated; he coughed much, he spat but little, and his breath was very fœtid. He had no diarrhœa; he was even constipated for some days; he experienced considerable thirst, and had no appetite. The tongue was red and dry in the middle, yellow and rather moist at the edges. His words were whispered rather than articulated distinctly. The skin was hot,

dry and earthy. The night sweats continued, and the pulse remained still frequent. From the 25th to the 26th he lay constantly on the right side. On the 27th of August, in the morning, he was still in the same situation, and almost dying. He expired the same day at six in the evening.

Opening of the Body.

Head.—All was sound in the head. There were not two scruples of serum in each lateral ventricle ; but there was a little between the arachnoid and the pia mater, and at the base of the skull. The larynx was a little red, but one did not perceive any ulcer.

Thorax.—In raising the sternum, one saw in the superior part of the mediastinum a great quantity of purulent matter, white and granular, contained in cysts almost oval, of which the volume varied from that of a hasel nut to a chesnut. Many round bodies filled with matter, white, soft and cheese like, were developed in the tissue even of the pericardium at its anterior and superior part,

which gave it, in this place, about eight lines, or even near an inch of thickness.

The heart was sound; it contained little blood, and exhibited some membranous spots upon the anterior surface of the two ventricles. The right lung was free, crepitating, altogether sound and without tubercles. The left lung appeared sound in its inferior lobe; but its superior lobe adhered to all the contiguous parts, and in particular to the first ribs, which appeared a little more convex outwardly than those of the side opposite. There was in this lobe a cavity large enough to contain two pullet's eggs; this excavation had ulcerated sides, and was not lined by any distinct membrane; the ulcer occupied the proper tissue of the lung, which was a brown grey at the depth of at least an inch in the whole circumference of the ulceration. A very fœtid smell, like that of wounds of the legs, affected with gangrene, proceeded from this ulceration. The parts become brown were soft at the depth of an inch, and might be detached in putrid shreds. Beyond the part grey and thus degenerated, the pulmonary substance was rather dense, and exhibited a degeneracy analogous

to the interior of tubercles still firm. This last alteration resembled pea-form and lenticular tubercles, and appeared of a tubercular nature.

Abdomen.—In opening the abdomen, matter appeared analogous to the grumous pus of the tubercles found in the pericardium. This matter formed an albuminous and white layer, by means of which the liver was united with half the superior surface of the stomach, and with its small curvature. The peritonæum was rather red, a little thick at the gastro-hepatic omentum, and it exhibited a very great number of small granulations. There was an analogous alteration over the whole surface of the mesentery, and over the whole cœcum the same as in many pretty large portions of the folds of the peritonæum which line the sides of the abdomen.

The liver was sound. The spleen was very voluminous and sound, as well as the pancreas; but to this last viscus strongly adhered a firm white fibrous membrane, from half a line to a line and a half thick, and which formed the lower side of a tumour

almost as thick as the fist of an adult, and extending from the middle part of the pancreas to near the right kidney. The matter which formed this tumour resembled soft cheese; it was yellow on the outside near the gall bladder, though the bile had not transuded through the sides of the bladder. More deep, and in different places this matter was white, grumous and purulent; it was manifestly tubercular. A great number of the mesenteric glands were of the size of a large pea, and even of a nut; and all were transformed in toto, or in part, into a white and firm matter already softened in the centre of some of them. The stomach was sound, as well as all the intestines, the peritoneal membrane of which was redish and granular in places; but the muscular tunic, and particularly the mucous membrane, was very sound, and absolutely without ulceration. The urinary and genital organs appeared sound.

29th Observation.

(By M. Cayol.)

Ulcerous Phthisis and Tubercular Phthisis, complicated with slight Peritonitis.

A shoemaker, 62 years of age, of middle stature, having the chest well formed, coughed habitually from the age of 25 years, and could not apply himself to any laborious exercise without being out of breath, and sometimes even having palpitations of the heart. During his youth he had been very subject to pains in his limbs: he lived then on a first floor, cold and damp. At the age of 45, obliged to change his habits, and to quit his easy occupation to follow the business of a shoemaker, he was much chagrined, and lost in a little time his plumpness, which he never entirely recovered. In the course of his 60th year, he perceived in the posterior, superior, and left part of the breast, a pain which continued nearly three weeks. Eighteen months after, in October 1808, he was seized with a slight diarrhœa, with colics from time to time, and strongly marked emaciation. In the middle of the month of December following, this diarrhœa diminished, but the habitual cough became much more considerable than it had been, and the breathing was sensibly shorter. At the same time, the pain of the breast returned to the same part that it had occupied two years before. Some days after it took place under the

left breast. The patient continuing to grow worse from day to day, came to the Charité the 2d January, 1809.

Already, at this period, his complexion was of a straw coloured yellow; his limbs very slender, soft, and without any muscular elasticity. There was, generally in the evening, a little swelling of the right foot. The cough was frequent, accompanied with an abundant expectoration, and a slight pain under the left breast perceived also besides, independently of the cough, whenever he lay on his side. The respiration became much oppressed by the least exercise: when he was absolutely at rest, it appeared natural. The fore part of the chest sounded well on percussion. The pulse was elevated, a little hard, without too much frequency, at least in a morning; and the patient said he had never had fever. The heat of the skin was nearly natural: he got very little sleep on account of the cough, but as to the rest the night was pretty quiet: the diarrhœa continued, and was sometimes accompanied with slight colics. During the little time that this man was at the hospital, he did

not alter, except that his diarrhœa increased; nevertheless it was not excessive.

He generally kept the recumbent posture: his skin, dry and earthy, had not that great heat which is so usual with phthisical persons. When he spoke or made any movement, his respiration was like that of a man out of breath: it became stertorous some hours before death, which took place the 18th January, at eight in the morning. Even up to this day the patient had his appetite, and did not shew any uneasiness about his situation. I regret not to have taken any note of his expectoration: all that I can say for certain is, that there was no blood.

Opening of the Body, 30 hours after death.

External state.—There was decided emaciation, particularly at the face and superior extremities; nevertheless the sub-cutaneous cellular tissue was not altogether deprived of fat.

Breast.—The lungs were voluminous, and scattered over externally with black spots crowded together. Their tissue was the colour

of chocolate, very soft, and without elasticity. It was easily torn and reduced to a pulp between the fingers. The left lung adhered to the costal pleura and to the diaphragm; its inferior surface was covered with a slight albuminous layer, thin as a leaf of paper, which separated easily. In the inferior lobe of this lung was a cavity sufficiently large to contain two pullet's eggs, and of a very irregular form: it inclosed a small quantity of matter of a pulpy consistence, and of the colour of chocolate, altogether like the tissue of the lung much softened. This cavity, hollowed out of the pulmonary tissue without any intermediate membrane, was traversed in different ways by thin filaments, of little solidity and ramified, which appeared to be vessels insulated by the softening, and as one might say, the melting of the surrounding pulmonary tissue.

At the posterior part of the lungs, and particularly towards the insertion of the bronchiæ, were observed many hard bronchial glands, as large as a small nutmeg, which inclosed in their centre real tubercles, of which some were entirely soft, and others only a little hollowed in the centre.

There were some bronchial glands in the same state near the root of the right lung, which did not present in any other part either cavities or ulcerations in its tissue. There was extensive cellular adhesion with the costal and diaphragmatic pleura.

The heart was larger than in proportion to the size of the subject; it was surrounded with much fat, but it was quite sound. The aorta was at least one-fifth larger than it is usually, from its exit at the heart to the place where it is inclosed between the two folds of the pleura. Its sides, examined with care, did not appear altered.

Abdomen.—The liver was rather voluminous and somewhat fat. The great omentum, large and charged with fat, was attached to the great anterior slope of the pelvis. The peritonæum was covered, as well over the circumvolutions of the small intestines as upon the mesentery, with a slight coat, under the form of very small soft, grey granulations, that were easily removed in scraping it with the edge of the scalpel. Under this covering the serous membrane was of a natural appearance.

The whole of the small intestines was distended with gas; but one perceived here and there, particularly towards the end of the ileum, contracted portions of a blue colour, which corresponded to large and deep ulcers of the internal surface of the intestine. These ulcers, to the number of twelve or fifteen, almost as large as a half crown piece, had completely destroyed in these places the mucous membrane, and had even altered the muscular: their base was whitish, their edges hard and elevated.

Many ulcers of the same nature, and more extended in size, had their seat in the colon. The cœcum was sound, as well as the rectum, and all the other abdominal viscera.

30th Observation.

(By M. Cayol.)

Ulcerous Phthisis and Tubercular Phthisis—Frequent Hæmoptysis—Miliary Tubercles.

Thomas U——, ancient trooper of the maréchaussée, 54 years of age, fair, of middle

stature, and of a violent character, had much muscular energy, though his limbs were not brawny, and his chest was narrow. Much addicted to women, he did not begin to restrain himself till his 53d year, having perceived that his chest grew weak. In fact, from this time he became more and more subject to colds, and sometimes observed small threads of blood in his sputa. For many years back he had been employed at the Octrois of Paris, and was obliged regularly to sit up every other night, which fatigued him much, though he slept a little in the day time.

The 28th December, 1808, having gone to bed in good health, he was awaked in the middle of the night by a general uneasiness, accompanied by a sort of bubbling in the chest; very soon after he had a severe fit of coughing, and expectorated many clots of blood, of a bright red colour and frothy. He kept quiet next day, and drank diet drink; nevertheless the hæmoptysis renewed itself with more abundance. The 30th December he consulted a physician, who the same day made him apply leeches to the anus.

I began to attend him the 1st January, 1809. He had then a slight dry cough; and from time to time a more violent fit, which brought clots of pure blood, red and frothy. The breathing was nearly in the natural state; but the skin was hot and dry; the pulse full, frequent, and hard; the cheeks of a lively red; the mouth and throat of an extraordinary dryness. He had for medicines whey sweetened, an astringent potion, and half a drachm of diascordium in the evening: the following days, instead of whey, the decoction of catechu, and rice water acidulated with eau de rabel.

The fourth of January all the symptoms already mentioned remaining with the same intensity, the skin still burning, the pulse full and frequent, he was twice bled copiously at the arm, once in the morning, and again in the evening; and the next day a third time, continuing besides the other means. Even till the 20th of January he was still nearly in the same state. He scarcely passed a day without spitting from two to five ounces of pure blood, in two or three fits of coughing. These fits of hæmoptysis were announced by a feeling of fulness,

and of heat behind the sternum. At the same time a troublesome tickling was perceived in the throat; and at the instant even when the blood was expectorated, it seemed to him as if something detached itself all at once from the bottom of the chest, or that some vessel was broke. He was so much prepossessed about his situation, that he imagined he saw what was passing in his body, and he never ceased giving foolish and chimerical descriptions of it. He grew very thin, and was tormented with an ardent thirst.

From the 20th to the 30th of January he had no hæmoptoe. The cough was loose, and followed by large sputa, yellowish and opake, which spread and congealed like melted butter. From time to time there were observed threads of blood in the expectoration, and though very seldom, some bloody sputa. The redness of the cheeks had disappeared, and was replaced by an extreme paleness; emaciation made rapid progress. The sides of the thorax seemed to grow dry, whilst the œdema attacked the lower extremities and the left arm. The pulse was frequent and pretty free; the respiration short and rapid, like that of a man out of breath. The patient experienced always a feel of rend-

ing in the chest, but to a less degree than during the spitting of blood.

The first days of February the hæmoptoe was renewed with more abundance than formerly, but however with the same symptoms. It was usually towards the evening, or during night that they took place. He had for drink rice water acidulated with eau de rabel. The 5th and 6th of February he spat up at twice more than ten ounces of blood. The œdema continued to make progress, and extended to the arms and eyelids; his feebleness was extreme; the respiration, short and oppressed, rattled occasionally. The pulse was full and frequent, the skin moderately hot. The stools were not materially affected. The 7th, at eight in the morning, he had again a spitting of blood of more than two ounces; but far from being alarmed at it as at first, he appeared on the contrary to have much hope. He died talking, this same day at four o'clock in the afternoon.

Opening of the Body, 64 hours after death.

External state.—Oedema not considerable in the trunk, and scarcely at all in the face; but

it gave the limbs twice the size they would have had without it.

Chest.—The mucous membrane of the air passages was reder than in the natural state, through its whole extent. This redness, which seemed owing to the injection of the capillary system, was more and more evident on proceeding in the bronchiæ. These passages, examined even in their third and fourth subdivisions, did not present internally the slightest erosion. They contained a thick mucous of a brown red, which flowed pretty abundantly when one pressed the lung.

The right lung was very voluminous, hard and heavy; it adhered, in its whole surface, to the costal pleura by means of cellular membrane, which separated easily from it. Its whole tissue was covered with tubercles of the size of a grain of millet, and of a consistence still solid. These tubercles were more and more numerous and thick set in proceeding from below upwards. In its superior third part, the pulmonary tissue was no longer visible, but under the form of small black points be-

tween the tubercles. Even in this portion there were here and there five or six cavities of very irregular figure ; the largest would have contained a nut ; all contained a thick pus, redish, and very different from that which results usually from the melting down of tubercles, but very similar to the sanious matter found in the bronchiæ. These cavities did not appear lined with any membrane ; one did not even perceive in them the flock like coating which covers the cavities of tubercles not encysted, when they have been melted down by suppuration.

The left lung was free, elastic and crepitating. It contained notwithstanding, in all its parts, a great number of tubercles, the greatest part large as lentils ; not any of them softened.

The heart was flabby, almost void of blood, and still well supplied with fat. The thoracic aorta was remarkable for its size, being at least one quarter larger than usual ; its sides were besides quite sound. In the abdomen, all was natural.

31st Observation.

(By M. Cayol.)

Ulcerous Phthisis and Granular Phthisis.

Michael D——, 26 years of age, born of healthy and well formed parents, was of ordinary stature, and exhibited all the characters of a sound and vigorous constitution ; had the chest large in all respects, his limbs strong and well grown, skin soft though firm, and hair of a clear chesnut. Having been successively hatter, packer, and soldier, he supported with equal ease the fatigues of these different stations, though he frequently committed excesses in his diet.

At the battle of Austerlitz, the 18th of September, 1805, he was thrown down in the fight, and received many blows from horses' feet upon his breast. After the accident, he had a profuse spitting of blood, with fever, cough, and pains in the breast, for nearly three months. He was put under a mild treatment, and bled many times. When he left the mi-

litary hospital he scarcely coughed any; but had lost much of his *embonpoint*, and of his strength, which he never completely recovered. It appears that the cough never ceased entirely; that it was exasperated by the slightest causes, and was often accompanied with pain in the chest, principally in the right side and behind the sternum. In the summer of 1808 this young man, in bathing in the Seine, caught a cold, which was violent and obstinate, and accompanied by some difficulty in breathing,

Some months after he contracted two buboes, for which he was treated at the venereal hospital at Paris. His health however diminished from day to day; he coughed and spat more and more, had often slight oppression, and could not pursue any laborious exercise.

The 20th of March, 1809, admitted at the Hospital la Charité; he gave us the above account. He added, that since the commencement of this disorder, he had diminished at least a third in bulk, and that he had entirely lost his colour. He was in effect very pale; but his muscles were still sufficiently large, and

his flesh was far from that state of flaccidity which accompanies organic diseases, arrived at a certain degree. He had fits of coughing strong and frequent, and expectorated in large quantity thready mucous, among which one distinguished a yellow opake matter, spread either in streaks or in larger masses, which, suspended in the mucous liquid, extended and divided itself without ever mixing with it, when one agitated the spitting can. The respiration was somewhat oppressed, and sensibly accelerated; the skin had nearly its natural heat; the pulse was elevated, hard, and sometimes rather frequent. He felt constantly an uneasiness at the pit of the stomach, and behind the sternum: he did not sleep at nights, but sweated much, particularly in the face and upon the breast.

After having employed, without any appearance of success, the pectoral drinks, the minor aperients and theriaca, I tried for eight days the liquor of Van-Swieten, which did not seem to produce any effect. He grew tired of staying in the hospital, and quitted it the 7th of April, 1809: he returned the 2d of June following. His disease was sensibly

increased, and for some days there was a slight diarrhœa, which was owing apparently to some purgative medicines he had taken. I remarked then that his visage, by the effect of the emaciation, appeared somewhat scrofulous. The pale colour of the skin, a slight swelling of the lips, the enlargement of the eyes, and a considerable dilatation of the pupils, concurred singularly to give him these appearances; so much so, that those who then saw him for the first time, could not form a just idea of his original constitution. The difficulty of respiration made constant progress, but this progress was very slow; the yellow matter was more and more abundant in the sputa, and in the end composed the greater part of it. The pulse was rather hard and frequent; the night sweats were always very abundant.

A few days after, the diarrhœa having ceased, he was bled at the arm to the amount of two or three cups, which appeared momentarily to diminish the cough, but which did not impede the rapid progress of the disease.

Towards the end of July, he had every

evening a febrile paroxysm well marked : the flesh was very soft, and the elevation of the muscles had quite disappeared ; the slightest exercise increased the suffocation, and produced extremely fatiguing fits of coughing. The sputa were raised with pain from the bottom of the chest ; the digestive functions were weakened without being disturbed. There was still a sense of uneasiness at the epigastrium.

During the first 15 days in August the diarrhœa re-appeared, and was sometimes bloody. There were from time to time threads of blood in the sputa, which were almost entirely puriform, but without fœtor. He had for drink whey, vulnerary infusion, and white decoction.

The 19th of August, after a violent fit of coughing, he spat up more than two ounces of pure blood ; the same day he complained of a severe pain under the right breast, which ceased the next day. The fever was strongly marked ; the anxiety and the uneasiness were augmented by the fright that the accident of the evening had produced. The 22d, fresh hæmoptoe of near a porringer full, (the blood red and frothy

as on the preceding day) and the breathing so oppressed, that the speech was interrupted and the voice obscured ; the pulse was elevated and frequent.

The 25th to the 26th the diarrhœa increased much ; three attacks of hæmoptoe succeeded one another in a short time, and occasioned him to lose more than a pint of blood. (This blood remaining in the spitting can, did not separate the serum : a very small part only coagulated ; all the rest remained fluid, and of a bright red, like blood recently drawn from an artery.) The respiration was accelerated ; oppressed, sonorous, and slight œdema began to shew itself in the legs. The 27th and 28th the œdema reached the hands. The patient, obliged to have the chest raised in order to respire, could scarcely expectorate. His sputa were entirely puriform, and mixed with blood in streaks and clots. The 29th his strength was quite gone ; he respired with great difficulty. The eyes alone preserved all their mobility and expression. These remains of life became extinct at ten in the morning.

Opening of the Body, 20 hours after death.

The right lung, very voluminous, adhered intimately to all the contiguous parts by means of a thick whitish membrane, which, united in a solid manner to the pleura, gave to this membrane a cartilaginous appearance. The pulmonary tissue, gorged with serum and blood, was beset with small white points, all exactly alike, smaller than grains of millet, hard and shining like cartilaginous tissue. These granulations were in quantity almost innumerable; but their smallness was such, that they did not sensibly increase the density of the pulmonary tissue. There was also, towards the middle and the top of this lung, at least five or six cavities of a spheroidal form, and very variable size; some covered over, and others filled with sanious pus, altogether different from that which arises from the melting down of tubercles. The largest of these cavities, situated in the middle of the inferior lobe, enclosed a clot of hard blood, mixed with concrete fibrin, which equalled the size of an ordinary nut.

Many clots of the same nature, but much

smaller, were contained in some other cavities: all were alike in structure; their sides were not covered with any membrane, but only with a slight pappy covering, rather red, which gave them the appearance of old ulcers. In scraping this slight covering, one discovered the tissue of the lungs, which was scarcely more dense or more red than its natural state, but gorged with serum and with blood, and very easy to reduce into pulp.

The left side of the chest contained some ounces of insipid yellow serum. The left lung had only some slight adhesion at its superior part, and on its diaphragmic surface. The same alteration was perceptible there as in the right lung, but not so much advanced. One might count at least five or six cavities, which were distributed nearly equally in all the lobes: none of these cavities would have been able to contain more than two ordinary peas. Some were full of greyish pus, very fluid; others contained a sanous pus, or small clots of blood. The mucous membrane of the air passages, as far as one could observe, did not exhibit the slightest trace of ulceration: it was only a

little red, and exhibited in some places a very fine capillary net work.

The heart and large vessels were in a natural state: they contained many black clots, very soft, almost without any concreted fibrine.

The mucous membrane of the intestines was without ulceration; there were only some red spots here and there, particularly in the cœcum, and towards the extremity of the small intestines. All the other parts contained in the abdomen were in a natural state.

32d Observation.

(By M. Cayol.)

Ulcerous Phthisis with shades of Calcular Phthisis, in a subject affected with Chronic Hepatitis.

A man, born of healthy parents, and who attained without infirmity a great age, was himself of good health and uncommon muscular strength. He was tall and thin, though very

muscular; had brown eyes and light chesnut hair. He drank habitually much wine, but very little spirit, or spirituous liquors.

At the age of 36, being a soldier in Holland, he experienced for the first time rheumatic pains, which became chronic. He obtained his discharge, and followed the business of a lead founder. To these pains were joined some time after a violent head-ache, which lasted many months in spite of very active treatment, and three or four bleedings pretty soon after each other. When this head-ache ceased, the rheumatic pains disappeared also; but the legs became œdematous, and were in this state for six months. After the disappearance of the œdema, being then 42 years of age, he began to cough, and to expectorate sputa tinged with blood, and sometimes blood alone; the stools were also sometimes mixed with much blood, though he had no colic.

He did not regard these different occurrences, because he was not in pain, and he continued his work. Nevertheless, from this time he began to grow thin. Towards the month of January, 1808, he became very subject to

vomit alimentary matter that was very sour, a few hours after meals, or even in a morning fasting. These vomitings were accompanied with a sense of heat and a sharp pain at the epigastrium. The emaciation continued to make progress, and he perceived his strength diminish daily: he was out of breath after the least exercise; and his arms, which were before so strong, refused to work, as he expressed himself. In the month of August following he was obliged to abandon his occupation; he soon afterwards took his bed, and the 16th January, 1809, he entered the Charité—he was then 50 years of age.

He appeared to have wasted considerably; his skin was hot and dry as if earthy, and of a dull yellow colour; the cheeks were rather red and projecting; he only lay on the right side, and the hypocondre of the same side was elevated, tense, very painful on the least pressure, and during the shakings of the cough. On placing the hand on this region, one perceived considerable hardness, and some elevations which seemed seated on the convex surface of the liver; the epigastrium was equally painful; all the rest of the abdomen

was soft and without pain. The respiration appeared rather oppressed and frequent; the cough recurred with strong fits, followed by an expectoration of yellow sputa, clustered and often streaked with blood: the chest, on percussion, sounded well throughout, except in the inferior third part on the right side, which was owing no doubt to the size of the liver.

The vomitings took place nearly every other day, and sometimes more frequently. They were announced many hours before by a general uneasiness, yawnings, and then a sense of burning heat in the epigastric region. They took place always with a violent fit of coughing. The matters rejected were aliments alone, or mixed with clots of blood one while very red, at another blackish. After these vomitings he found himself relieved.

His tongue seemed in a natural state; he had nevertheless anorexia, and particularly a decided disgust for wine. When he attempted to drink any, though ever so little, he was soon after tormented with pyrosis, which almost always ended in vomiting. The only food he

eat still with pleasure was bread and potatoes; these were what he digested too with the most ease.

From the commencement of his disease he had almost always constipation or diarrhœa; and had observed that when he was costive, he experienced very difficult digestion, oppression, and a peculiar sensation that he expressed by saying that he had the stomach barred. When, on the contrary, he had diarrhœa, he found himself much better, was less oppressed, and vomited less frequently.

During his stay at the hospital he had no vomitings; but after meals, though they were ever so slight, he experienced excessive uneasiness, nausea, a burning heat, and heats in the region of the stomach. On the first days he had a pretty copious diarrhœa. Afterwards the alvine discharges were entirely suppressed. At the same time the belly swelled uniformly to such a degree, that on the 19th January it was no longer possible to feel the projection of the liver; nevertheless the right hypochondre and the epigastrium were still harder and more painful than the rest of the abdomen.

He always lay upon the right side; his breathing was more and more frequent and oppressed. The sputa, which were on the first days mixed with blood, became puriform only, and less copious. The cough was frequent, and caused a sharp pain at the epigastrium, which extended between the shoulders; and though he still eat a little, his strength diminished rapidly.—During the last days, he had a little incoherence in his ideas, and almost constant dreamings; his memory was singularly weak. He never manifested the least uneasiness about his situation.

The 24th January his countenance expressed indifference and a sort of apathy; he said he did not suffer, and that he was quite well. Nevertheless his features were sunk, his eyes almost extinguished, and his breathing oppressed; had besides great motion of the larynx, and his pulse extremely small. He died at nine in the evening.

Opening of the Body.

External state.—The subject was very thin, but had not reached the last degree of maras-

mus. His flesh was firm, and without any trace of œdema: the right hypochondre was sensibly more developed than the left: all the right half of the abdomen presented to the touch more hardness than the rest.

Thoracic cavity.—The upper part of the right lung adhered in a very solid manner to the costal pleura by means of an accidental membrane, cartilaginous, and more than a line thick; it was hollowed out by a cavity of an irregular form, large enough to hold nearly three pullets' eggs. This cavity was coated with a puriform mucous mixed with blood, and perfectly like the sputa expectorated during the disease. Its sides were not covered by any membrane internally; but they were formed immediately by the pulmonary tissue, reduced to the thickness of half a finger's breadth, hard, condensed, and strengthened externally by the cartilaginous envelope already mentioned. I could not discover any passage communicating between this focus and the bronchiæ; neither did I perceive any trace of tubercles, but only two or three cretaceous concretions of the size of a grain of millet; they were situated in the substance of the sides of the

cavity. The inferior lobe of this lung had only some slight cellular adhesions with the costal pleura; it was otherwise perfectly sound.

The left lung had also some old adhesions, and its texture was very clear from blood and serum, so much so, that in some portions one did not perceive the cellular texture; but these portions even swam in water. The heart and the large vessels were in the natural state.

Abdominal cavity.—The liver exceeded its ordinary size at least one-third: it raised very high the diaphragm, and extended on the right to a little distance from the crest of the ileum: its left lobe depressed the stomach, and almost entirely filled the epigastrium. Its convex surface presented some elevations not very prominent. Its tissue was blood red, and it was particularly remarkable for its specific weight and its density. The rents that one made in it exhibited large granulations, red and shining; the cuts, on the contrary, were very smooth, and of an aspect similar to that of a homogeneous body, such as wax. The biliary pores were not perceptible, at least with the naked eye: the blood vessels were much gorged with blood.

A pretty large quantity of thick bile, and of a deep green colour, filled the gall bladder.

The stomach was sound, as well as the intestinal canal and all the other abdominal viscera, which were carefully examined.

Fourth Section.

OBSERVATIONS ON CALCULAR PHTHISIS.

The simple calcular Phthisis is rather a rare disease; but shades of calcular Phthisis are often to be found in the lungs of certain persons who have died of some other species of Phthisis. There are examples of it in Obs. 32 and 39. Two other Observations (33 and 34) exhibit this disease simple, and without any complication.

33d Observation.

Simple Calcular Phthisis.

A commissioner, 59 years of age, of a sanguine bilious temperament, and a pretty good constitution, was sick for more than nine

months, when he was admitted at the Charité the 26th of November, 1802. His disease began the month of February of the same year by a very violent dry cough, which at the end of about six weeks was accompanied with some slimy sputa, mixed at times with streaks of blood: at the same time the patient felt a slight pain behind the inferior part of the sternum. During the months of April and May the expectoration became more abundant, and was mixed with much blood at different times. There had been also at a distant time some feverish movements and night sweats. Towards the middle of June, after violent efforts to cough, some calcular concretions very hard, whitish, and as the patient said, very like plaster, were expectorated. In the following month the same symptoms continued: there were no more pains at the chest, but a great oppression at the epigastrium, and an habitual state of constipation. The appetite began to fail in the last days of October, and the sputa became more abundant and less transparent, but no longer streaked with blood. The 27th of November, second day of his admission, the appetite was moderate, the tongue clean, the cough violent; the expectoration

glairy, mucous, and pretty abundant; a sense of stricture was felt at the epigastrium; there was slight emaciation; the skin was dry and rough; the pulse small, sharp and frequent. In the first weeks of December, no calcular concretions were seen in the sputa; but the hectic fever was well characterized, and the emaciation made rapid progress. The 25th of December, there were in the spit can three calcular concretions very hard, of a whitish grey, and like hard plaster; their volume scarcely equalled the half of a grain of hemp seed; there was no blood in the sputa. The expectoration became gradually more abundant and puriform, though always mixed with glairy matter, and from time to time with small calculi. The voice sunk: he had occasional diarrhœa; the skin was dry, rough, and earthy; the emaciation increased. The 16th of January he was much tormented, and appeared ready to expire. During some days he continued in the same state; but the 19th he said he was well and did not feel any pain, not even at the epigastrium. The 21st he did not yet despair of his cure, and had passed a pretty good night: he died the same day at five in the

evening. He was reduced for some time to the greatest degree of marasmus.

Opening of the Body.

Head.—All appeared sound in the cranium.

Thorax.—The lungs adhered to the contiguous parts by means of an abundant cellular tissue: they were one and the other hardened in some places. In cutting them, one found a great number of small irregular and unequal calculi; some placed in the bronchial glands which were a little swelled, but otherwise sound, and some enclosed in small round cysts, of which the size varied from that of a pea to a lentil. A matter like chalk, dry and hard, was found in all these cysts, of which the sides were thick; and in the middle of the cretaceous matter a little moist, diluted and very rough to the touch, one found calcular concretions, of which some were larger than grains of wheat. There were in the superior lobe of the left lung three small ulcerations, which would hold a large pea or a nut; they were covered

with pus and lined with a thick membrane, similar to the cysts which contained the cretaceous matter. The tissue of the lung was every where a little hardened round the cysts. The mucous membrane of the air passages appeared sound, but it contained much mucous, which was almost like a purulent liquid.

The heart was sound: there were two small white membranous spots at its surface.

Abdomen.—The liver was of a pale yellow, but otherwise sound. The spleen, the pancreas, the mesentery and the stomach were in a natural state. The intestines appeared quite sound; they had no spot on the exterior, and they were not ulcerated within. The kidneys and the bladder had not experienced any change.

34th Observation.

Simple Calcular Phthisis at the first degree—Death occasioned by a Pleura-Peripneumony.

A cartwright, 43 years of age, of a bilious temperament, was taken the 3d of August,

1804, with a remarkable oppression at his breathing, and a strong dry cough after fatigue carried even to sweating, and succeeded by a sudden cooling. From this time he experienced constantly a frequent cough, with mucous sputa; besides he had still the oppression at his breast on respiring. He had grown but little thinner after six months of this kind of obstinate rheum, but was so weak that he could hardly work, which induced him to surrender himself at the Charité, where he was admitted the 31st of January, 1805.

The 1st of February he said, that for some time back, he suffered more than usual, and had great uneasiness in the whole chest. He preserved his appetite, but coughed much, and spat glairy matter. For eight days he appeared to experience relief; and was pretty well recruited, when on the 9th of February he was seized all at once with a constant fever. The oppression of the breathing increased; the sputa became more abundant, but did not change its nature. The following days the fever continued; there did not appear any painful point in the chest, but there was a marked oppression. The tongue became very red and

shining. This disease did not seem to increase in an alarming manner; nor did it seem to be as yet dangerous, when the patient died the 18th of February, tenth day of the fever.

Opening of the Body.

Head.—All was sound in the cranium.

Thorax.—The right lung was filled with greyish white concretions, very hard, as if of plaster or bone, placed some in the parenchyme of the lung, others in the bronchial glands; these concretions, like cretaceous, varied in size from a grain of millet to that of a lentil; they did not appear encysted. The pulmonary tissue was pretty sound throughout, but was a little hardened near each of the calcular concretions.

In the left side of the chest, there was between the lung and the costal portion of the pleura an accidental membrane, more than two lines thick, soft and easily torn. The pleura was scarcely red; the lung was rather hard, a little carnified, and manifestly reder than in its natural state: there were found besides, as

well as in the right lung, many small calculi, as if formed of plaster, spread through all the parenchyme, and into the bronchial glands. The heart was sound.

Abdomen.—All the abdominal viscera appeared natural; but in the interior of the small intestines there were some places already reddened and thickened, which probably, if the fever had continued a little longer, would have become the seat of real ulceration, as I have often observed in continued fevers of a bad kind.

Reflections.—The patient who is the subject of the 33d Observation, sunk under pulmonary Phthisis; but that whose case is mentioned in the 34th, died long before the Phthisis could have sent him to the grave. The true cause of his death was the peripneumony, which became the more dangerous from being increased by the presence in the lung of a great number of irritating bodies. If the peripneumony had passed to the chronic state and the patient had died at the end of two or three months, would we not have erred in believing the inflammation had effected the formation of calcular concretions? Do not we commit the

same error in believing, that the tubercles which are found in the same circumstances, owe their origin to a chronic inflammation of the lungs?

Fifth Section.

OBSERVATIONS ON CANCEROUS PHTHISIS.

I shall mention here three cases which appear to me sufficient to shew this species of Phthisis. In Obs. 35, the cancerous affection is confined to the lung; in Obs. 36, it occupies this viscus and other parts very distant; in Obs. 37, we see an example of the union of cancerous Phthisis with tubercular Phthisis, in a subject eminently cancerous.

Sometimes, in phthisical persons a cancerous disease affects the stomach or the liver, *(Obs. 21)* but when in this complication the disease of the chest is a tubercular Phthisis, the injury of the lung has absolutely no affinity with the alteration that is observed in this organ from cancerous Phthisis.

I have not found in authors any example

of cancerous consumption. Ledran indeed speaks of this species of Phthisis, (*Memoirs of the Royal Academy of Surgery, vol. III. p. 28, Obs. 22*) but the fact he mentions may not belong to this disease. This is the abridgment of the history :—

" A girl, 22 years of age, had a schirrus at the left mamma, which was extirpated. Two years after there came under the left armpit, a gland as large as an olive. There appeared a slight dry cough, accompanied with slight difficulty in breathing. After a little time the other mamma became schirrus; and at the end of six months there was a burning heat at the mamma, and the dyspnœa became excessive. Purgatives were administered to her every four days, and soon afterwards she was supposed to be cured. Her health seemed established for six months, and at the end of this time a slow fever followed. Her appetite disappeared; the difficulty of breathing returned very frequently, and she died six months after this relapse.

" On opening the body, the right mamma was found of a cartilaginous consistence. The right lobe of the lung was quite hard.

The inferior half of the left lobe was quite as hard as the whole of the right; and the superior half was disposed to indurate, for it was strewed with small glands very hard."

Though this observation includes many particulars, one cannot, from the dissection, pronounce with certainty upon the nature of the disease. The description which Ledran gives of the injury of the lungs cannot correspond with the cancerous degeneracy of that organ; but it gives a good representation of the state of this viscus after chronic peripneumony, complicated with tubercles.

To take away all doubt about cancerous Phthisis, it was necessary to describe with the most scrupulous accuracy the degeneracy of lungs become cancerous: this was the more necessary, as patients affected with cancer in some other organ than the lung, may have at the same time a pulmonary Phthisis that is not cancerous, (*Obs.* 21)—and again, a great number of authors have called by the name of schirri crude tubercles and tubercular glands. Besides, these last alterations characterise tubercular Phthisis, but have no analogy with

the lesion observed in lungs affected with cancerous Phthisis.

The histories I have united in this section, include a description sufficiently precise for one to know henceforth what to depend upon relative to cancerous Phthisis of the lungs.

35th Observation.

Simple Cancerous Phthisis.

A collier, 57 years of age, of a bilious temperament, was received at the Charité the 7th July, 1803. His disease had began by an oppression of breathing, accompanied at intervals by a dry cough, which returned in violent fits, and by pains in the breast. Insensibly the skin became of a yellowish dull colour, though the white of the eyes remained quite natural. The strength was not diminished, and the appetite was pretty good. Towards the tenth month of his disorder, the skin was rough, dry and earthy; the cough, which was frequent, produced a glairy expectoration, not in any quantity. After some time (March, 1803) a slight hæmoptysis supervened, which induced

the patient to the Hotel-Dieu: the hæmoptysis stopped the 17th day, and he soon after quitted the hospital.

Towards the 15th month of his disorder, his strength had not diminished in a remarkable manner; there had been no diarrhœa; but the expectoration appeared to be purulent, and he had sometimes sharp pains of the breast. The patient compared them to those produced by pressing the testicles.

The 4th of July there came on a general uneasiness, fever, and a dull pain which was perceived throughout almost the whole chest; and from that time the patient took his bed. The following days he had constantly fever, cough, and different other symptoms, which obliged him to keep his bed. He was conducted to the Charité, where he was placed the 7th day of this acute disease.

The 8th July, prostration, impossibility of lying on his sides; sharp pains in all the chest, but particularly on the right side, near the lower third part of the sternum. Frequent cough, purulent expectoration mixed with

small flakes or lumps of a milky white; face as yellow as gingerbread; eyes watery, conjunctiva white; pulse full, free, and frequent.

From the 9th to the 28th of July putrid fever was well marked: the features were depressed, the tongue black, the pulse gave but little resistance, the skin was dry and earthy; there was little cough, and scarcely any expectoration. The pain of the breast was scarcely perceived; there was no nervous symptom. At the beginning of August the fever ceased, the convalescence seemed at first to announce itself freely; the appetite returned, he eat his half portion with pleasure; the skin seemed to have been washed, though it retained a yellowish tinge; but the cough and expectoration had appeared again, and very soon increased. Towards the end of the month of August the sputa became from day to day more abundant, and manifestly purulent. Towards the middle of September the strength diminished much; and very soon the emaciation, which had made very sensible progress, reached even a marasmus. There appeared above the humeral extremity of the right clavicle, behind the neck, a soft and fluctuating

tumour, without pain or change of colour of the skin.

The 24th September the appetite had completely disappeared: the patient rose no more. He expired the next day, at five in the morning, 26th September, 1803, at the end of 18 months' illness.

Opening of the Body.

Head.—All was sound in the skull.

The tumour situated at the inferior and posterior part of the right side of the neck extended behind the back, and contained more than ten ounces of greyish pus, badly united and very fœtid.

Thorax.—The lungs adhered pretty firmly to the pleura in many places, particularly about the upper part. There was in the left side of the chest a soft albuminous layer like the inside of the stomach of an ox, from the great number of cells; this membraniform bed covered the costal and pulmonary portions of the pleura.

The left lung seemed quite sound; it was soft and crepitating. In cutting it, I found six tumours of irregular form, nearly of the size of an acorn, continuous with the tissue of the lung, hard and of a shining white, and pretty much like fresh bacon. These tumours did not in any wise resemble unencysted tubercles. The tissue of the lung was scarcely hardened near these cancerous degeneracies.

The right lung was much more affected; there were in it a great number of round tumours, of various size, from that of a nut to a chesnut; all appeared continuous with the tissue of the lung; their colour was white, they seemed rather shining, and their appearance was rather like fresh bacon. There were some capillary blood vessels visible, in the way one sees them in the brain. Of these tumours, some were still firm, and those were the most shining; others had less consistence, and they were of almost a milky white. In compressing these last, one forced out from many points a white pus similar to cream a little thickened. This pus, at its exit, formed like very small nipples: other tumours were already almost destroyed, and transformed into as many small

whitish ulcers, unequal at the surface, and covered with pus: the tissue of the lung was slightly hardened round these ulcerations. The heart was sound, though pretty large.

Abdomen.—The liver, spleen, pancreas, stomach, intestines, mesenteric glands, kidneys, and bladder, were quite sound.

36th Observation.

(By M. R. Th. H. Laennec, D. M. P.)

Cancerous Phthisis.

A mason, about 35 years of age, brown skin, black eyes, and pretty decided muscular *embonpoint*, entered the Charité the month of December, 1805. He bore upon the fore-arm a tumour, which shewed itself all at once after an exertion 10 years before. This tumour, which was scarcely as large as a filbert at the time it appeared, had since increased very slowly; but six months ago it had grown rapidly. Its weight was become so inconvenient, that though it oc-

casioned no pain, he urgently desired to be relieved of it. The extirpation having been judged impracticable, it was decided to amputate the arm. This operation was retarded nearly a month, in consequence of considerable oppression of breathing the patient complained of, and which appeared to indicate a slight peripneumony. On his getting a little better, M. Boyer amputated his arm. The effects of the operation were at first pretty fortunate; it cicatrised quickly. Nevertheless the respiration was still oppressed; the oppression soon increased, and he died of a sort of suffocation, twenty days after the operation.

Opening of the Body.

External state.—The cicatrice of the stump was almost linear, and covered with a slight dry albuminous crust. The skin was puckered up all around.

Organ of the internal senses.—There was scarcely half a drachm of serum in the ventricles of the brain. The left mamillary process included a small serous cyst, of the size of

a grain of hemp seed, the sides of which appeared traversed externally with small blood vessels. All the rest of the brain was sound.

Organs of respiration.—The lungs adhered in some points to the adjacent parts by means of small portions of cellular membrane. They contained a great many insulated masses encysted, and of various size, from that of a large apple to a filbert. Their form was nearly spherical, or a little flattened. Some of the smallest were situated between the external surface of the lung and the pleura. They were formed by a tissue of various consistence, from that of a very soft brain, to that of the hardest portions of this viscus, such as the tuber annulare and the medulla oblongata. In the softest this tissue was homogeneous, smooth, moist, yellowish-white, rose-coloured, or bluish. There were a great number of small vessels, and some larger. In these same tumours one saw here and there excavations, some of which inclosed a yellowish serum, pure, or mixed with clots of blood; and others larger, and more numerous, contained blood, black and clotted. Some of these excavations were lined, at least in part, by a very thin membrane, and traversed by a great num-

ber of blood vessels; others, on the contrary, were formed by a real destruction of brain-like matter.

The firmest of the tumours had nearly the same aspect as the preceding. At their exterior they exhibited elevations and unevenness somewhat like the circumvolutions of the brain; their tissue differed from that of soft tumours, independent of its consistence, insomuch as it was less homogeneous, more opake, of a more yellow or slightly grey colour, and in fact because it was beset with fewer blood vessels.

The cysts which inclosed these tumours were all alike; they were formed of two very distinct membranes easily separated by dissection. The external, thin, composed of cellular tissue and of blood vessels, adhered to the tissue of the lung; the internal, about half a line thick, but the thickness unequal in its different parts, was semi-transparent, and formed by an homogeneous tissue of a pearly grey, at first sight rather like a very thin cartilaginous plate. This membrane was traversed on its external surface by some small blood vessels, none of which were to be seen in its tissue. In

the interstices of the brain-like masses we have been describing, the pulmonary tissue was quite sound. The lungs in this subject being much developed, the sound parts formed still a very considerable volume.

The circulating system.—The heart was rather large. The right cavities contained nearly two spoonfuls of blood almost quite fluid, and of a blackish red. The left cavities contained nearly as much; but it was rather more firmly coagulated. The large vessels were in the natural state.

Digestive organs.—The gall bladder, small, long, as if contracted within itself, contained very little bile.

All the other parts of the body were sound.

Reflections on the preceding Observation.

The disease I have been considering in the foregoing Observation was a constitutional cancerous affection, of which one may be easily convinced in observing that the complaint in the arm, and that of the lung, were absolutely

of the same nature. This fact, and many others that I have collected on the same affection, will not allow me to admit the common opinion, that cancer is a consecutive disease, i. e. an effect of inflammation terminating in induration. When I publish the result of my researches into cancerous complaints, I hope to shew that cancer is a primary disease of a peculiar nature; and that though it is often met with united to other organic degeneracy, this coincidence proves nothing more than that these different degeneracies may occur in the same subject, and sometimes reciprocally influence one another, though one be not a transformation of the other.

I think I ought to support what I now advance, by relating a second example of the developement of cancerous affection in different organs; and as I am treating here particularly on pulmonary Phthisis, the fact I shall adduce shall be selected from those which bear a feature of cancerous Phthisis. We shall here see the coincidence of the developement of a cancerous tumour in the lungs, and of a tumour of the same nature in the brain, in a subject affected first with paraplegia, and then with apoplexy.

I prefer this Observation to others that I might mention, because it not only perfectly squares with those I should have been able to make use of, but again it furnishes a new proof of what I have advanced relative to the progress of Phthisis in its first period. The fact I allude to I witnessed as well as M. Cayol, who took down the Observation, and has described the dissection of the body :—

A printer, 58 years of age, was received at the Charité as an infirm person, to wait till he could be placed in an alms house. He had the inferior extremities completely paralized, and his intellectual faculties were in a state bordering upon idiotism. When questions the most simple were put to him, such as, for example—Are you hungry? Are you in pain? &c.—he answered well enough; but only by yes or no. He did not appear to comprehend questions a little more complicated, and those particularly which related to the past: his memory appeared quite obliterated. He was in no pain: his countenance was still placid, and neither expressed sorrow nor joy. He could not quit his bed, nor even place himself upon his seat, and he passed all his evacuations under him.

He had a great appetite, but it was necessary to make him eat like a child: he was very awkward in the use of his arms, which seemed to be beginning with the palsy. If he took any thing in his hand, he let it fall again as soon, and usually upon himself, on account of the limited extent of his movements. Though the emaciation was not considerable, the flesh was soft, particularly of the inferior extremities. The skin was pale, approaching to yellow; nevertheless the face had preserved enough of *embonpoint* and of freshness.

This man had no defect in his frame, and appeared on the contrary well grown: he was a little above the middle stature; his hair had been black, and was nearly grey, as well as his beard.

Towards the 11th or 12th of April, a month and a half after his entry at the Charité, he lost all at once the use of his speech, and fell into a state of prostration. The following days he was in a stupor almost continually, and always without intelligence: at length, the 16th April, his respiration, which had been free till then, began to be embarrassed. The

rattle shewed itself soon after, and the patient expired at ten in the evening.

Opening of the Body.

There was found in the anterior part of the right hemisphere of the brain, a tubercular and cancerous mass the size of an Indian fowl's egg, of nearly a spherical form, and of considerable consistence and specific gravity. Its surface was unequally elevated, and of a redish grey; it appeared to have a number of blood vessels running through it. There was a very perceptible fluctuation in a small circumscribed spot at the upper part; and in fact, on making a very slight incision, there issued about two spoonfuls of limpid yellowish serum. The containing cavity, rugged and unequal, was evidently not lined with any membrane, and did not contain any cyst. It was dug in a matter of the colour of a canary bird, and of the consistence of a paste pretty thick and granulated. There was neither blood vessel, nor any trace of organization in this matter: it had all the appearance of scrofulous tubercles which are becoming soft, with only this dif-

ference, that in some places, and particularly in those which form the sides of the cavity, it was very soft, and seemed swelled with serum.

This tubercular matter formed particularly the centre, and the three upper parts of the tumour; the rest was of a cancerous nature: it was a firm tissue, of a greyish white, a little shining, which was traversed in all directions by blood vessels which were very visible. There was perceptible in one point even a small effusion of blood, of the size of a grain of hemp seed. This tissue, quite distinct from the tubercular matter, seemed nevertheless to be mixed with it in some places.

The cancerous and tubercular tumour I have been describing, was not evidently encysted; its exterior surface, nevertheless, appeared covered with a very thin cellular and vascular tissue, which sent off many internal but irregular prolongations, too thin to be traced; situated above, and a little to the right of the anterior extremity of the lateral ventricle, upon which it pressed a little without penetrating the cavity, being separated by cerebral substance one or two lines thick.

It was about an inch distant from the orbital process of the corona, and about the same from the surface of the brain, of which the circumvolutions were neither sensibly flattened nor altered in form.

It was immediately surrounded by a bed from two to three lines of cerebral substance, softened and reduced nearly to the consistence of thick cream, yet without any change in its colour.

All the rest of the brain was natural, as well as the cerebellum, the medulla oblongata, the membranes, &c. The ventricles contained very little serum.

Chest.—The lungs were blackish, as usual in old men.

That of the left side was free and soft, appeared quite healthy; but in pressing it between the fingers, one distinguished near the middle of its internal border, in the part which rests upon the pericardium, a considerable circumscribed hardness: it was a cancerous mass, nearly of the size and form of a small nut. It

might be compared, for consistence, to pulmonary tubercles which are just beginning to grow soft; but it differed from them totally by its internal structure. In fact, it was formed by a milky white substance, a little shining, penetrated in all directions by blood vessels, in some points very visible.

After having cut this substance, if it was scraped with the edge of the scalpel, it formed a pulp like soft cerebral substance; and this brain-like pulp appeared to issue from the meshes of an extremely fine cellular or vascular net-work, which seemed to form the parenchyme of the tumour. All these characters made it impossible to mistake the nature of this alteration of the lung, which besides had an appearance entirely analogous to that of the degeneracy which constitutes most cancerous diseases, as well external as internal.

In an irregularly circumscribed portion, nearly the size of a pea, the same tumour exhibited a yellow colour, which nevertheless was not so strong as to trench upon the surrounding substance. M. M. Bayle and Moutard Martin, who were present, attributed this shade

of yellow to the mixture of a little tubercular matter.

The external surface of this tumour was unequally elevated, and covered with a slight cellular and vascular layer which united it to the lung.

The surrounding pulmonary tissue was much softer and blacker than any where else; and this alteration extended to a thickness of two or three lines. All the rest of the left lung was quite sound; but it was soft, and almost without elasticity.

The right lung had old adhesions to the costal pleura; was very soft and gorged with blood, but otherwise appeared sound.

The other viscera examined with care, exhibited nothing remarkable.

37th Observation.

Union of the Cancerous and Tubercular Phthisis, in a person remarkably affected with cancerous diathesis.

A labourer, 62 years of age, of a sanguine temperament, was admitted at the Charité the 30th of June, 1805. He had considered himself ill only during the last six weeks. His disorder began with general pains, which obliged him to quit his work. His chest and epigastrium in particular, were in a state of extreme sufferance, and he had a slight cough accompanied with a white and opake expectoration. For ten days he had eat nothing, and twice he had vomited spontaneously. From that moment the constipation became habitual, and there were sharp transient pains at the fundament; the fœcal matter resembled goats' dung. Eight days before the attack of the pains, this man appeared to enjoy very good health, and performed with ease the same work as the years before.

The first of July, pulse full and hard, not frequent; face red; slight rattle; cough, and expectoration of a mucous matter slightly puriform; tongue pretty clean; no vomiting. The liver formed an unequal and large tumour which occupied the epigastrium, and extended even to the naval. He said he had felt pains at the pit of the stomach, but had not yet perceived any

swelling of the right hypochondre and of the epigastrium. There were three hard, indolent, moveable oblong bodies, smaller than nuts, placed one towards the upper part of the epigastrium, another at three fingers' breadth under the right mamma, and the third near the cartilage of the first false rib of the right side.

Though there were for moments sharp pains at the inferior part of the rectum, the anus was no wise contracted; but there was an accumulation of fœcal matter in the rectum: this was removed. He remained nearly three weeks at the hospital, and had always a frequent pulse, red face, and pretty sharp pains in the abdomen, which did not increase on pressure. There was very often vomiting of liquid matter, yellowish and bilious. The tongue became dry, then brown, and lastly black; but for the last days it was almost clean: the cough was become frequent, the expectoration purulent and pretty copious: the strength diminished daily. In spite of the emaciation and extreme feebleness, the face remained tolerably red till he expired, the 18th of July, at two in the morning. After death the visage became pale, and

he presented the same aspect as most of the subjects who have died of cancerous diseases.

Opening of the Body.

Head was not opened.

Thorax.—The lungs scarcely adhered to the contiguous parts, appeared pretty sound, but were a little obstructed. In cutting them, one found at the root of the lung, in an extent of nearly four inches long by two broad, a shining white substance, in the interior of which were some capillary blood vessels. In compressing this substance, which resembled a little the appearance of brain, thick white matter issued from it, a good deal like cream. There were some portions of tubercular matter placed here and there in this white substance, and the surrounding pulmonary tissue. The tubercular degeneracy, which was of a whitish and opake yellow, contrasted in a remarkable manner with the cancerous matter, which was of a shining white. There were small tubercles and very small purulent foci in all the lobes, so that on pressing the lungs, but particularly the left, a little purulent matter was forced out.

The heart was sound.

Abdomen.—The liver was very large ; it extended very far beyond the false ribs ; it was very unequal, and quite filled with white bodies sunk into its substance, as large as nuts, walnuts, or even Indian chesnuts, all shining, and of a milk-white colour. The cancerous bodies, when compressed after an incision, gave issue to a very white pus, which started at an infinite number of points. In these cancerous bodies a great number of very fine small red vessels were visible, which produced a slight appearance of cerebral substance. The tumours of the liver resembled perfectly the cancerous degeneracy of the lungs.

The gall bladder was sound, and contained pale yellow bile. There was found a white schirrus body as large as a nut, fixed upon the pancreas, without touching the liver. This body, similar to those that were found in the liver, was quite filled with a white pus, included in an infinity of small cells, from which it might be easily pressed. The pancreas, carefully examined, appeared quite sound.

The stomach, very sound externally, did not present any thing absolutely otherwise internally.

The alimentary canal was sound, as well as the mesentery, the urinary and sexual organs: there was no schirrus of the rectum.

The mobile and ovoid bodies placed upon the sides of the chest, were small brain-like cancerous affections, which, examined with very great care, appeared evidently of the same nature as the schirrus bodies found in the abdomen, and the degeneracy observed in the lungs.

Remarks.—In this man there was a general cancerous affection, and a tubercular degeneracy united to cancer in the organ of respiration. The cancerous disease is that which appears to have contributed most to produce death: but from the state of the lungs, one cannot here mistake the complication of cancerous pulmonary Phthisis with tubercular Phthisis: portions of tubercular matter were found situated in the cancerous degeneracy of

the lungs. Often the same mixture of cancerous and tubercular matter is found in cancers of the liver, and in ulcerated schirri of the the stomach. These facts appear to destroy the opinion of those who have supposed, that tubercles were the effect of a predominant acid, and cancers the result of a predominant alkali; and that, in consequence, these two affections could not occur in the same person; for we see, on the contrary, that they sometimes coexist in the same part.

Sixth Section.

OBSERVATIONS RELATIVE TO PULMONARY PHTHISIS ARRIVED AT ITS UTMOST DEGREE, WITHOUT BEING ACCOMPANIED WITH THE CHARACTERISTIC SYMPTOMS COMMONLY ASSIGNED TO IT.

I shall mention but few Observations on the varieties of Phthisis which follow an equivocal course throughout, because these cases are not rare, and authors have cited many examples. I have mentioned two in my Memoir upon Tubercular Degeneracy; (*Jour. de Med. Chir. & Pharm. an. XI. tom. vi. p.* 47 *&* 54,

Obs. 3, 4)—but in the two individuals treated of in this memoir, the disease had not yet attained its last degree, like those we shall mention in this section.

This deceitful course of Phthisis is not peculiar to one or more of the species: it appears that almost all may sometimes deceive the most attentive observer, and become fatal without evincing evident signs of the alteration of the lungs. This ought to render us very circumspect in our diagnostic in chronic diseases not perfectly characterized.

38th Observation.

Tubercular Phthisis arrived at the third degree, without the pathognomonic signs of this disease.

A commissioner, 61 years of age, of a bilious temperament, had a cough for a month, but only considered himself ill eight days, when he was admitted at the Charité 22d April, 1804. More than a month he had experienced much pain behind the upper third part of the

sternum, and had a dry cough ; nevertheless the appetite did not diminish : some emaciation supervened. The 14th of April the appetite vanished, and the tongue has since become red and dry. The thirst was urgent, the pulse not frequent; the respiration was very free, in spite of the pain he complained of behind the sternum. In fact, for a week the cough had not continued to be so dry, and had yielded, at distant intervals, an expectoration of transparent glairy sputa. He had hydromel, and a simple emulsion prescribed.

During all the month of April, and the first days of May, he remained nearly in the same state; recovered but little appetite; coughed frequently, but scarcely ever expectorated; the little that he did spit up was glairy and transparent.

In the month of May he grew weaker by degrees, did not quit his bed, coughed much, and never spat any, which his neighbours affirmed as well as himself. He had from time to time diarrhœa during some days only; but about the middle of June he was seized with a constant diarrhœa; he coughed exces-

cessively without any expectoration, and eat nothing; he was completely pale and discoloured. The upper extremities were remarkably œdematous. He was ordered the white decoction of Sydenham, rice water sweetened with syrup of great comfrey, and diascordium.

At the end of June the swelling totally disappeared, and he attained an extreme state of marasmus. At the beginning of July he exhaled an odour extremely feculent. For more than a month he took nothing but broth, and had still the diarrhœa. He remained constantly sunk in his bed, and scarcely ever spoke. The 7th July, at eleven in the morning, he expired quietly, and without convulsion, about five months from the commencement of his disorder.

Opening of the Body.

External state.—The whole body was wasted to a skeleton.

The mucous membrane of the bronchiæ was sound. The right lung adhered slightly

to the contiguous parts by means of some cellular flakes; the left lung was almost entirely free. Both one and the other appeared sound; but in touching them, one found in them a great number of pea-formed or lenticular hardnesses. When cut into, they were found to be crowded with miliary, lenticular, and pea-form tubercles, of a whitish grey colour. Some of these tubercles were encysted; a great part adhered to the proper tissue of the lungs, which nevertheless was sound all around the tubercles. The right lung contained a great many more than the left, and they were almost all still hard; some of them, towards the root of the lung alone, were observed to have passed to the state of suppuration.

The heart was very sound, and almost void of blood.

Abdomen.—The liver, spleen, pancreas, omentum, and mesentery, were in a natural state. The stomach was not large. The small intestines exhibited externally a considerable number of black spots of a deep slate colour, and in these places their internal surface exhibited ulcerations of the size of a lentil, a pea,

or even a finger nail. In various other places the mucous membrane was thickened, filled with small miliary and pea-formed eminences, which were hard tubercles.

In the cœcum and transverse colon there were a great number of ulcerations, nine lines broad and an inch long, with elevated and fringed borders, and an uneven brown surface.

The kidneys were sound, as well as the bladder.

The flesh was reduced to almost nothing, and discoloured: the ribs broke with extreme facility.

Reflections.—The symptoms this patient experienced might make one suspect a pulmonary Phthisis, but were insufficient to recognise it by with certainty during life. One cannot however, after the result of this dissection, refer this disease to any other kind of organic lesion. M. Moutard Martin communicated to me another Observation of Phthisis, where it was the more difficult to pronounce upon the nature of the disease, as the subject had expe-

rienced various affections of diverse kinds, having no affinity with pulmonary Phthisis, and was oppressed with deep chagrin, to which the hectic fever and many of the other symptoms might be ascribed. This will be still better judged of in reading attentively this Observation, which I think I ought to introduce here :—

M. L. B. D——, an ancient commissary of marine, 39 years of age, apparently of a nervous temperament, was of middle stature; his skin was white, and his hair black, and he had scarcely any beard.

He was born of a father who lived to 89 years, without ever having had a complaint; and of a mother who was of very feeble health, and who died about the age of 45 years, of the effects of a suppression of the menses.

From his earliest infancy, to the age of 17 or 18 years, M. D—— had many glands at the neck, and eruptions upon the head. He was not subject to hæmorrhagy of the nose, nor to taking cold more than at other times. He lived in America from 15 to 27 years of

age. He married there very young, and was always very well till the time the negroes revolted. At this epoch he was oppressed with chagrin. Fallen from a fine situation, and deprived of all his property, he lost almost at the same time his wife and his only son. He was then 22 or 23 years of age: soon afterwards his digestion became troublesome; he was tormented with tenesmus, and had successively many disorders; amongst others a quartan fever, which lasted a year. The critical situation he was in, and the continual fear of the negroes, forced him, though still sick, to spend a very active life for many years, to be almost always on horseback, and without relaxing from military duty. He passed at length to the United States of America, where he lived eighteen months, during which his health was very good. At the age of 27 he returned to France. The year following he had a jaundice; and six months after the cure of this disorder, he was seized with a fever for five or six days. From this time he was very subject to returns of fever, which were equally of five or six days' duration. At the age of 38, these little complaints which succeeded each other, leaving only short intervals of

health, had already produced a state of languor and decay which was protracted nearly a year without any remarkable change. At the end of this time the appetite, which was entirely lost, began to return. Nevertheless cold tremors came on, followed by a great oppression, with cough, but no expectoration. At length his strength still decreasing, he came three weeks after the first attacks of rigor, to seek relief at the Charite. His physiognomy bore the expression of deep grief, joined to a sort of astonishment: the tremors which continued at short intervals, were accompanied and followed in some instances by intense thirst. The cough was very rare, and without expectoration. He declared that he scarcely, during the day, was sensible of more than two or three returns of sputum in his throat, which he always swallowed, from not being able to bring it to his mouth to spit out. The pulse was small and frequent; the skin dry and hot; the breath feverish. The tongue was moist, of a lively red, and smooth: it exhibited some whitish spots. The mouth was clammy and insipid; nevertheless the appetite was sharp, and the digestion very free. There was slight constipation. The urine was deep coloured, and the

emission of it very difficult in consequence of an old gonorrhœa, which had occasioned a stricture of the urethra. From the commencement of the disorder he was never inclined to vomit; he had never felt a pain at the breast, nor in any other part of the body; and he never had night sweats.

At the end of October, viz. nearly six months after the commencement of his disorder, a slight diarrhœa occurred; the appetite diminished in a remarkable manner; the tremors continued.

From the 1st to the 14th of November continual diarrhœa, excessive emaciation, gloomy silence, deep and habitual sadness; all indicated the physical and moral depression to be at its height.

Though his intellectual faculties did not seem weakened, it was difficult to make him speak; and his replies disclosed the deep impression he had received from the events to which he had been a victim. The 15th of November, not appearing worse than the preceding days, he expired all at once, without

experiencing any pain. He had not had, during the course of this disorder, either pain or expectoration, nor night sweats.

Opening of the Body.

He was reduced to the last degree of marasmus. The skull was not opened. The chest contained in the left side about eight ounces of serum: there was not any in the right.

The lungs were deeply altered; the one and the other presented the same kind of alteration and to the same degree; they were almost entirely tubercular. The tubercles were all softened and suppurated: there was no distinct line of demarcation; the pulmonary substance itself appeared transformed into tubercular matter. Incisions made in the thick part of the lung occasioned a stream of pus, which transuded at all points. No cavities could be distinguished in which the suppuration was collected. One could only see, as it were, soft tubercular matter. There was scarcely a part of the substance of the lung to be distinguished which had not degenerated into tubercles.

The heart and large vessels were sound.

The liver, of ordinary size, was not fat, though it had the yellow colour which it usually takes on, when it undergoes this sort of alteration. There was no ulceration in the intestines.

39th Observation.

Tubercular Phthisis and Calcular Phthisis arrived at the last degree, without presenting the pathognomonic signs of pulmonary Phthisis.

A joiner's boy, 15 years of age, of a sanguine bilious temperament, expelled a worm the 16th of May, 1804. Three months after, i. e. the 20th of August, he was seized with shivering, head-ache, and diarrhœa. The pain of the head and diarrhœa were obstinate. Every evening there succeeded fresh shivering, followed by heat without sweating. By little and little, the belly became painful; there was colic; the stools were mixed with a little blood, and he complained of smarting at the fundament. He soon after lost his appetite:

he had even nausea, and an urgent and constant thirst; he grew considerably thinner; his skin became dry, rough and earthy.

The 20th of September he was admitted at the Charité: he had no appetite, and he had always head-ache in the frontal region. His tongue was not foul but white; he was thirsty; the colic had ceased five days; he had not any pain in going to stool; his stools were liquid, to the number of two or three only every 24 hours. He had no difficulty in making water. His pulse was frequent, rather feeble, but without intermission. The pupils were much dilated; the skin was sallow; the heat dry and rather pungent; the shakings continued to return every evening, but not so strong.

He was put on rice water with tincture of rheubarb; he was prescribed besides, at the end of some days, two drachms of extract of juniper and anniseeds. The diarrhœa diminished much; but in October the emaciation increased, the pulse remained frequent, and the skin was dry: nevertheless, the appetite being well restored,

he got up each day, and took a little exercise.

Towards the end of October bathing was had recourse to, with the hope of re-establishing the functions of the skin. He remained in the bath an hour and half, instead of a quarter of an hour as had been prescribed. He had scarcely been in three times when he perceived himself to have become very feeble, and he complained of pain in the chest. He was even seized with a dry cough, to which no attention was paid, though he demanded remedies for the cold he had caught. It is true he did not spit any: besides this cough was considered as resulting from the exhaustion, which was, in fact, carried to such a degree, that this young lad could no longer quit his bed. He expired at the end of a few days, the 14th of November, without pain, and without any alteration occurring in his countenance. His disease lasted only three months, and the cough had only appeared five days.

Opening of the Body.

External state.—The marasmus was at the last degree.

The head was not opened.

Thorax.—In the left side of the chest, there was an effusion of turbid serum with albuminous flakes swimming in it. The left lung, particularly in the lower part, adhered to the contiguous parts by means of a copious cellular texture: this lung inclosed a great number of cavities full of pus. Its tissue was firm, greyish, and hardened in the intervals between these cavities, which were of various sizes, from a pea to that of a walnut. Many whitish and soft tubercles were observed up and down in the parenchyme of the lungs; some had concretions in them like lime, and as hard as stone. The membrane was very visible in the cavities that were filled with pus. The bronchial glands were very black, and almost as large as nuts; some were not otherwise altered, but many of them contained stony concretions without any cyst.

The right lung adhered to the costal pleura, in all its extent, by means of cellular layers. Its interior contained the same lesions as the left lung, but its tissue was less changed: the purulent foci and the tubercles were there much less numerous. Nevertheless the bronchial glands which surrounded the root of this lung, contained actually the same volume and the same stony concretions as the pulmonary glands of the left side.

The heart and large vessels were sound.

Abdomen.—The liver was sound; the spleen was not large, and seemed deprived of blood; and in bruising it, its tissue appeared like a sort of boiled beef, very soft and black. The pancreas and stomach were sound, as well as the small intestines, and the exterior of the larger ones. In the interior of the iliac portion of the descending colon, and in the rectum, the mucous membrane exhibited a redness and puffiness which resembled the fungous elevations of a suppurating wound. This disposition, pretty remarkable in the caput coli, proceeded increasing in the direction of the anus.

REFLECTIONS.—This disease presents the combination of calcular with tubercularPhthisis. We see here besides an example of Phthisis arrived at the last degree, without having been accompanied with pathognomonic symptoms of Phthisis: yet the state of the lungs precludes all doubt about the disease. The abdominal affection seems to have contributed to mask as it were the pulmonary Phthisis. The cough, which arose in the last days, does not appear to have been dependent on the Phthisis, but much on the acute pleurisy, which was the result perhaps of the improper use of the bath.

Another thing very remarkable in this Observation, is the freedom from expectoration, in one whose lungs contained a great number of purulent foci. What becomes of the pus in such a case? how is it evacuated? I ám ignorant: but often enough, as I have already stated, (*page* 2 *&* 3) we see large ulcerations of the lung in subjects who do not exhibit the least appearance of either mucous or purulent expectoration. Amongst many examples that I could mention to support this proposition, I shall select only one, which is the more remarkable, as the history of the disorder, and the

description of the dissection of the body, were drawn up by an exact observer, who, before witnessing this fact, could not be persuaded that there ever were ulcerations, and even purulent foci, in the lungs of any subject who had neither cough nor expectoration. He had nevertheless observed the disorder which I am going to mention, and he had judged before the death of the patient that he was not affected with a schirrus of the stomach, though he had the symptoms of this disorder rather than those of pulmonary Phthisis, as any one will be able to convince himself who reads the Observation:—

A man of 50 years of age, admitted at the Charité the 2d of May, 1810, was reduced to a state of marasmus actually like a skeleton. The anterior part of the belly touched the spine; he had some slight œdema at the right leg; his skin was dry like earth, and of a pale yellow. Naturally thin, and much addicted to wine, he had nevertheless enjoyed a good state of health till his 49th year; only he was subject for a long time, a little after waking in the morning, to vomit some gulphs of phlegm. These statements of the patient were confirmed by one of the overseers of the infirmary, who

had formerly known him in the army. Since he had been discharged, he worked at Paris as a labouring man.

He ascribed his growing so extremely bad to a severe diarrhœa, which had never quitted him for three months. At the commencement and during five or six weeks, this diarrhœa wa attended with a cough and slight expectoration, in which there had been at different times some bloody sputa. The patient had not experienced besides either pain of the breast or fever, (from what one could judge by his own report) nor any thing to induce one to suspect an acute affection of the chest : but for about six months before the attack of the diarrhœa and of the cough, he had almost entirely lost his appetite, and he saw his *embonpoint* and his strength diminish from day to day, without knowing the cause. He only felt a general uneasiness, without any distinct pain. From the time the diarrhœa shewed itself, he was no longer in a state to work ; and in truth, for more than a month before his entry at the hospital, his cough had entirely ceased, and there did not remain the slightest expectoration.

He was only three days at the Charité, during which time he was not observed either to spit or cough. The diarrhœa continued; and the feebleness was such, that not only he did not rise to satisfy his wants, but he was even unable to move a limb out of bed: his muscles were reduced to almost nothing by the emaciation. Nevertheless his face was not so thin as other parts of the body, and retained some expression. His respiration was not sensibly oppressed, nor was his voice altered. He was in no pain, and did not appear to have much inquietude about the event of his disorder. Such was still the state of this patient the 5th of May, during the visit. He died some hours after, without suffering, and without pain.

Opening of the Body.

The lungs were very voluminous, and did not sink when the chest was opened. They adhered firmly to the costal pleura by means of an accidental membrane, which was very thick, hard, and of a fibrous appearance. These adhesions were very solid at the upper part of the lungs. The upper three parts of this

viscus were very hard, and quite impervious to the air. They were filled with miliary tubercles very thick set, and gathered into masses more or less considerable, that were separated by small hard black points. Great part of these tubercles were still firm: they presented themselves under the aspect of small bodies of a yellowish white, of the size of a grain of millet perfectly opake, and of the consistence of Dutch cheese; others were much more soft, and easy to reduce into pulp between the fingers. In the upper lobe of the lungs were many cavities filled with yellowish pus, whose sides were pretty smooth, and spread over with slight purulent membraniform covering. When this covering was removed, the sides of the cavities presented the same aspect as the pulmonary tissue in which they were inserted, i. e. that one saw innumerable miliary tubércles of a yellowish white, separated from the pulmonary tissue by small portions that were black or redish, hard, more or less extended, and of very irregular form. These cavities were nearly to the number of five or six in each lung: they were all rather round. The largest would admit the end of the finger; the others were much smaller. The two lungs

were exactly alike, and quite sound in their inferior fourth part. In both the one and the other, there were two or three encysted tubercles, nearly the size of a pea, between the first divisions of the bronchiæ. The heart and the large vessels were in a natural state.

Abdominal cavity.—On both surfaces of the mesentery there were a great many lumps, demi-spheroidal, smooth, and of different sizes: there were mesenteric glands which were harder and larger than natural. In cutting these, one saw that some of them were transformed entirely into a yellowish opake matter, perfectly resembling that of the tubercles we had found in the lungs: others were only partially degenerated; and one distinguished still, by the side of the tubercular matter, portions of the tissue of the gland quite sound. None of these glands were suppurating.

The last circumvolutions of the small intestine presented many ulcerations in the interior nearly the size of the finger nail, redish at the bottom, with borders elevated, and cut as it were perpendicularly. They seemed only to affect the mucous membrane; nevertheless

they were visible even on the outside of the intestine, where they formed spots of a brown red colour. There were not any in the cœcum. All the rest of the intestinal canal was in the natural state, as well as the stomach, the liver, and the spleen.

Head.—The cerebral substance was soft and very moist: there was nevertheless very little serum in the ventricles.

Seventh Section.

OBSERVATIONS ON CHRONIC PLEURISIES WHICH ONE MIGHT HAVE TAKEN FOR CONSUMPTIONS.

I have united under this title six particular cases of chronic pleurisy, which resembled Phthisis during the life-time of the patient, and which it might have been still easy to mistake at the time the body was opened. Some of these Observations will explain how, in a great number of cases reported by different authors, they have considered those as phthisical subjects who were not; and why, at the opening of bodies, it has been believed that a lung

was totally destroyed by suppuration, or was deeply ulcerated, when it was even without ulceration, and perfectly entire.

40th Observation.

Chronic Pleurisy which resembled Phthisis during the life of the patient; and which, at the time of the opening the body, had the appearance of a suppuration of the lung with complete destruction of this viscus.

Anthony C. coachman, 32 years of age, tall, and of a bilious temperament, became subject, about the end of his 28th year, (1799) to a dry and frequent cough, accompanied often with an uneasiness throughout the chest, and principally in the right side: he sometimes suffered much, and at others he did not appear sick. During his 29th and 30th year, (1800 and 1801) he did not get thin in any remarkable degree, but suffered almost constantly, in consequence of the cough and of the oppression in breathing. At length, in the spring of the year 1802, the cough became much more frequent than in the preceding years. He expectorated mucous matter sometimes glairy, at

others whitish, and mixed with small strings of blood. During all the summer to the beginning of autumn, the disease appeared always to increase; and towards the end of the month of November wandering pains were frequently felt all through the chest, and particularly in the right side and behind the sternum. Sometimes it was less real pain than a feel of uneasiness and oppression, difficult to define. In the month of January, 1803, the emaciation had already made great progress; the skin had become dry; there were night sweats; the pulse was always frequent; the fever had each day, towards evening, a very decided exacerbation; the sputum was of a whitish colour, and often tinged with a little blood. The appetite continued, though diminished, and he lay almost always on the right side. During the following months the same symptoms continued; they even increased by degrees, and the sputa became manifestly purulent, and very fœtid. At length, the 17th of May, 1803, this coachman was admitted at the Charité: he complained of having been ill for more than four years. A blister had been applied some time to the sternum, which did not appear to have produced any effect. His face

was pale and thin; the skin dry, foul and earthy: he had night sweats. The diarrhœa, which took place occasionally, had not appeared for many days. The pulse was small, feeble and frequent. The emaciation had proceeded to the marasmus of a skeleton. The right was the side on which he lay: nevertheless, it sounded well on percussion whilst he was upon his back. The cough was strong and frequent; the expectoration fœtid, and of an ash-coloured white, was manifestly purulent. The feet were slightly swelled.

The 19th of May, at six in the morning, his speech stopped; he had the rattle; his pulse was imperceptible, and death terminated his sufferings after being in agony half an hour.

Opening of the Body.

External state.—No swelling of the hands; slight swelling of the feet; the chest well formed; marasmus of a skeleton; stature tall.

Head.—All appeared quite sound within the skull.

Thorax.—The heart was large and filled with black blood, partly coagulated. There were many white pellicles on the surface of the heart, and some on the right auricle which were ramified, and which expressed very well the figure of a fern. There was much liquid black blood in the cavities of the arteries and large veins. The left lung was free, soft, and crepitating; but in its superior lobe were found transparent and very hard miliary granulations. The right cavity of the chest was very large; it was almost filled with gas, and contained besides more than a pint and a half of a matter fœtid, white and thick, purulent or puriform.

The costal pleura was white, and more than a line thick; but it was not ulcerated. The mediastinum was in the same state.

The right lung seemed quite destroyed by suppuration: there did not appear to be a trace of it remaining. Nevertheless it was not destroyed: it was found compressed above, and applied upon the pericardium; it was covered by a white accidental membrane which totally concealed it. In detaching this membrane, one might separate the lung from the

mediastinum, which was itself thickened. The lung flattened, and reduced to a very small volume, was besides evidently in the most entire state. Its parenchyme was brown, firm, compact, and totally deprived of air; but it was not hard—it contained a great number of transparent miliary granulations. There was, quite at its upper part, a passage hardly large enough to admit a small catheter, which established a communication between the right cavity of the thorax and a ramification of the bronchiæ. This passage was membranous; it seemed continued from the mucous membrane of the bronchiæ, where it communicated. The pulmonary tissue, traversed by this accidental canal, appeared uninjured. Near the sides of the canal, which had an unequal and very small opening towards the cavity where the empyema was, the mucous membrane of the trachea and of the bronchiæ appeared sound: it was of a whitish colour.

Abdomen.—The liver, pushed towards the abdominal cavity, was larger than it is usually. The spleen was large and rather hard. The pancreas was sound. The stomach and intestines appeared in the natural state. There was

much hard fecal matter in the transverse colon, and many trichuride worms in the cœcum.

The kidneys were very hard, very red, and of a natural size.

The left testicle was rather larger than the right. There was on the epididymis a pea-form hydatid, or rather a cyst penetrated with blood vessels. The left spermatic cord was varicose.

The flesh was of a brown red; all the bones were very brittle.

Remarks.—The miliary granulations were perhaps the cause of the chronic pleurisy, which destroyed him; but they had not yet produced Phthisis. It would have taken place in time, if no inflammation had happened to the pleura. The right side of the chest sounded well on percussion whilst the patient lay upon his back, because the gas it contained occupied the anterior part. The symptoms of this disease pretty much resembled those of Phthisis; and if one had made only a superficial examination of the chest on opening the

body, one would have thought the disease was really a Phthisis which had completely destroyed one of the lungs.

41st Observation.

(By M. Cayol.)

Chronic Pleurisy—Appearance of complete destruction of the right lung.

A terrace-maker, employed at the canal de l'Ourcq, 28 years of age, and of a bilious temperament, said he had been ill six days when he was admitted at the Charité, the 14th of September, 1806. He had a very severe continued fever, with a pain at the right side of the chest, attended with cough and very difficult respiration. The sputa, which had been bloody the first days, were become white, and of the consistence of a thick mucous: the pulse was feeble, deep, and rather unequal; the tongue was clean; the belly was distended and rather tense.

The fever and the pain of the breast dimi-

nished the following days, and in the end ceased almost entirely; but the cough continued, and the right side of the chest did not admit any sound on percussion. During the month of October the spitting became manifestly purulent, and more and more abundant.

In November he was up a part of the day: but when he was in bed, he could not lie, except on his right side: this side of the chest became the seat of a very remarkable clammy œdema; soon after which, the legs and the thighs also swelled; the appetite disappeared entirely; the strength continued to diminish from day to day, though the emaciation was not extreme, and the patient died the 28th November, at eleven in the evening.

Opening of the Body.

The right side of the chest inclosed about seven or eight pints of yellow very fluid pus. When this fluid had run out, the cavity remained empty, and one did not any where perceive the lung, which seemed to have been completely destroyed by the suppuration; but afterwards it was evident that this viscus was

quite entire. Compressed, and flattened against the mediastinum, it was reduced to a longitudinal band of the thickness of a finger's breadth, covered, as well as all the rest of the thoracic cavity, with a yellowish membrane, pretty solid, and coated with pus. It was not till after having detached this false membrane with much care, that one could perceive the lung, the tissue of which was quite solid, and completely deprived of air, as the lung of a fœtus which has never respired. It was not otherwise altered.

The left lung was of an ordinary size, and adhered to the pleura by means of a false membrane of long standing, and evidently organized. Its tissue presented throughout a little more density than in the sound state, which seemed owing to the quantity of liquid with which it was obstructed: nevertheless it did not exhibit any very evident trace of recent inflammation.

There was nothing remarkable either in the abdomen or the skull.

Reflections on the preceding Observation.

This man's disease lasted about three months. There was not any tubercle in the lungs, which

is no way astonishing; for there were not any found in the servant belonging to the Bureau, *(Obs. 42)* whose disease lasted six months; nor in those of the herb-seller, *(Obs. 44)* whose disorder continued at least two years. It is not the inflammation, whether acute or chronic, of the pleura which occasions tubercles, but a peculiar disposition to tubercular diathesis, general or local. The most protracted inflammation is not sufficient without this disposition to make the lung tubercular; and almost always when there is a coincidence of tubercles and chronic pleurisy, the tubercular affection has preceded the inflammatory disease, and often prevents the cure of it.

42d Observation.

(By M. Cayol.)

Chronic Pleurisy of the right side taken for a Phthisis.

John Baptist L——, servant at a bureau, 67 years of age, having the appearance of a feeble constitution, asserted nevertheless that he was formerly lusty, and always enjoyed

good health, before the disorder which is the subject of this remark. It began about the middle of the month of August, 1808, by a cough, attended with sharp pains in the whole of the chest, and with a copious expectoration of viscid sputa, in which there was not any blood. At the same time he lost his appetite, and was seized with sharp pains of the belly, without any derangement in the evacuations. In November these pains of the belly disappeared, but those of the chest continued: the cough became so strong, that it often excited vomiting of the food. A fever followed, which, according to the report of the patient, was continued, and violent for many days. When it ceased, all the other symptoms appeared much diminished. In the middle of January, 1809, the pain of the chest had totally disappeared, and the cough was less strong and less frequent; nevertheless, he did not recover his appetite, slept little, and grew weaker from day to day.

On first observing him, the 13th of January, 1809, he presented the following symptoms: decided emaciation; slight œdema of the right hand; frequent cough, sometimes dry and

sometimes accompanied with mucous expectoration, less abundant and less thick than at first ; no pain at the breast. The chest sounded well every where on percussion, except at the inferior part of the right side ; the respiration appeared in the natural state, as well as the pulse and the beating of the heart. He lay indifferently on either side, or on his back. The mouth was clammy, and the tongue covered with a whitish coat. There was some tenderness at the left hypochondre ; but one did not perceive the slightest tumefaction. The rest of the abdomen was in the natural state. He said that he never had more fever than at the time when I observed him : he complained much of want of sleep, and had no appetite ; yet the food that he took in very small quantity was easily digested, and without causing any inconvenience.

A few days after the examination which I have mentioned, this man, who was till then regarded as phthisical, was taken off by a putrid fever, which did not present any thing remarkable. During its continuance, which was five or six days, the symptoms of the disorder of the chest did not appear to increase.

Opening of the Body.

The right side of the chest contained at least a pint of redish liquid, turbid and flaky. The lung, reduced to nearly one quarter of its volume, and compressed against the mediastinum, was concealed under a thick bed of white flakes, puriform and tinged with blood, in such a manner, that in confining oneself to a superficial examination, it would have been easily believed that these were no more than some remnants of this viscus, which had been almost entirely destroyed by suppuration; but by means of a little rubbing and washing with plenty of water, I succeeded in removing all the puriform flakes, and thus discovered the lung, which was entire: it was closely covered by a thin false membrane, demi-transparent, and almost identified with the pleura. Its tissue was besides quite sound.

The left side of the chest was in the natural state, as well as the heart and the large vessels. The other viscera had nothing remarkable.

430 Observation.

Chronic Pleurisy—Some Tubercles in the opposite side to the Pleurisy—one lobe of the lung seemed totally destroyed, though it was not even ulcerated.

A terrace maker, 30 years of age, of a sanguine bilious temperament, and of a pretty good constitution, had never had a serious complaint, except at 26 years of age a tertian fever, which continued two months; and at the age of 29 a fistula ani, which not being very painful, he had not even attempted to get cured. A year after, at his 30th year, he was seized with a violent fever, which shewed itself the 20th of February, 1803, by tremors followed by heat and sweating. He had at the same time head-ache and a sharp pain in the left side of the chest under the mamma. During 15 days the fever continued without abatement: shivering returned every day, followed by heat and moisture. The stitch of the side was violent, and accompanied with cough without expectoration. Towards the 16th day, there came on a swelling from the wrist up to

the fore-arm of the right side; the fever and pain of the side diminished. The following days the swelling reached first the face, then the two hands, and at length it shewed itself at the legs, the thighs, the scrotum, and even at the belly. It disappeared in 12 days, i. e. about the 28th day of the disease.

Whilst the swelling lasted, the disease appeared to cease; the appetite returned; the pain of the side ceased almost entirely; the cough was less violent, and was followed by an expectoration white, mucous and opake, of which the quantity increased in proportion as the swelling advanced. When the swelling subsided, the pain he had felt under the left breast disappeared entirely; but the cough continued. The appetite was not very sharp: there was a slight oppression, and a sort of dull pain behind the sternum. Towards the end of the month of March and the beginning of April, the sputa appeared purulent, and had, according to the report of the patient, a taste and odour like that of rotten eggs. Sometimes the cough and expectoration diminished; but then he had more uneasiness. An oppression came on, and the respiration was short and

distressing. Nevertheless, the sleep was still bad, and he grew gradually thinner. At the end of April, the expectoration was suppressed for eight days, and he had much less cough; but the respiration became very laborious: the appearance of suffocation frightful, and the faintness extreme. He could not lie on the right side; he was obliged to remain on the left side, or on the back.

In the beginning of May, the expectoration returned and continued, but it was at one time more, at another less abundant: there were no marked febrile exacerbations, though he had constant night sweats. The cough encreased daily: he grew very thin; he slept very little, and was constipated. The urine was in the natural state. From the 15th to 19th of May he had strongly marked febrile exacerbations, and could lie on both sides. The 20th of May he was admitted at the Charité; the 21st of May his situation was as follows:— face still full and red; appetite; tongue clean; light sleep; considerable general emaciation; skin earthy; pulse small and feeble, but not frequent; breathing rather short and quick; lying on the right side very easy, very painful

on the left, supportable on the back; cough, white sputa purulent and fœtid; the right side of the thorax sounding very well on percussion before, but behind very dull; the left side, on percussion, did not give any sound either behind or before, except in the space between the nipple and the clavicle. Under the nipple, the skin was slightly œdematous towards the middle of the ribs. The belly was swelled and soft; there was neither diarrhœa nor constipation; the urine passed freely. He was prescribed a pectoral infusion, a vulnerary tisan sweetened with syrup of tolu, a bitter pectoral potion, half a portion of aliment, and two glasses of wine.

The 26th, 27th, and 28th of May, the urine was scanty and turbid, passed with some pain; pulse rather frequent. The 30th, pulse very frequent. The 6th of June, the expectoration extremely abundant, followed by a little ease. The 12th of June, the tongue whitish; the left side of the chest was no longer œdematous; the region of the bladder was still a little painful, particularly when expelling the urine. The 15th of June, tongue clean, mouth foul. The 17th, pulse elevated, hard and fre-

quent. The 18th of June, redness at the fore part of the neck and the upper part of the breast. The 19th, the redness gone; the pulse less elevated and less frequent.

From the period when the patient was admitted at the hospital, to the 6th of June, the face was always a good colour and pretty full, though the hectic fever was well marked, and the emaciation made sensible progress every day. In the middle of the month of June, the face itself partook of the general emaciation: the thighs and legs grew thin; the ribs projected; the skin was dry, rough and earthy; the feet swelled in the evening, but subsided again in the night; the left side of the chest was the seat of a slight œdema; the strength was exhausted, nevertheless the chest sounded much better than before; there was now only the posterior part of the left side which did not sound on percussion, for the forepart was become sonorous again. The 20th of June the diarrhœa appeared; the 21st it continued: the expectoration was less copious; but the strength was exhausted, and the marasmus was at the utmost degree: the head was filled with lice and nits. The 22d the symptoms the same.

The 23d of June, 1803, he expired at five in the morning. During the course of the disease, no change occurred in the fistula ani.

Opening of the Body.

External state.—Excessive emaciation; feet slightly œdematous; cheeks slightly coloured.

Head.—All was sound in the skull. There were about three drachms of serum in each lateral ventricle of the brain.

Thorax.—The heart adhered intimately to the pericardium by means of a very firm cellular membrane, evidently traversed with blood vessels. The right lung adhered very intimately to all the contiguous parts, and in particular to the costal portion of the pleura, by the medium of an accidental membrane more than a line thick, and beset with very distinct blood vessels. The lobes adhered intimately to one another. The superior and the middle were soft, crepitating, and perfectly sound. The inferior was a little more firm than in the natural state: one saw there two or three tuber-

cles as large as nuts, and still very firm within; there was one larger than a chesnut, and filled with suppuration at its centre.

In the left cavity of the thorax, there was in front from the diaphragm to the mamma, and behind from the diaphragm to the upper third part of the chest, an effusion of about two pints and a half of pus, of a greenish white, thick, well connected, and slightly fœtid. The pleura was thickened throughout, and covered with a thick albuminous layer. A sort of albuminous membrane, very soft and very white, but very difficult to tear, lined in many places the costal and pulmonary pleura, which corresponded to the effusion; and this false membrane exhibited prolongations more than two inches long, which extended from one side to the other of this cavity. Near the diaphragm one of these prolongations was very thick, pretty long, evidently fibrous, white, very firm, and extremely difficult to tear.

The lung had its inferior lobe applied to the pericardium very much flattened, scarcely three lines thick, and so well concealed, that any one would have believed it wanting,

who examined inattentively the sides of the empyema.

In examining this lobe with scrupulous attention, there was no tubercle to be perceived; but two fistulous passages, which established a communication between the empyema and the bronchiæ. These passages, situated in the pulmonary parenchyme, were lined by a thick membrane, which had much analogy with the mucous membrane, and which adhered intimately to the tissue of the lung, so that in the track of these fistulæ the lung was not ulcerated. The superior lobe of this lung was perfectly sound. It was in vain that tubercles were sought after, or any ulceration.

Abdomen.—The portion of the peritonæum which lines the sides of the abdomen, the omentum, and a great portion of the other folds of the peritonæum, had acquired a black colour like slate, which is the first degree of melanosis. The liver was in the natural state. The spleen adhered intimately to the adjacent parts. The pancreas was sound, as well as the stomach and the small intestines. There was no ulceration found in these, nor any miliary

tubercle. The large intestines contained a great quantity of liquid and yellow fœcal matter. The cœcum was sound, as well as the ascending and transverse portions of the colon.

After having divided the inferior third part of the sigmoid flexure of the colon and the rectum, it appeared that the mucous membrane of this portion of the intestinal canal was thick, puffed, and covered by a thick and thready mucous. Here were to be seen all along small red excrescences of various size, from a grain of wheat, to that of a small mellon seed. A great number of these excrescences seemed ulcerated; and though they were crowded together, one saw small ulcerations between a great many of them. At some lines above the margin of the anus, the internal orifice of the fistula was observed; the outer orifice was situated at three lines from the margin of the anus on the left side. This fistula, being divided, proved to be lined by an accidental membrane, very analogous to that we had observed in the sides of the fistulous passages which traversed the lungs. The cellular tissue and the fleshy parts which surrounded the track of the fistula ani exhibited, in different places,

callosities formed generally by a redish substance, containing a very great number of blood vessels; and in one of these hardened places was found a hard tumour, of a grey and opake white, and the size of a large pea. This tumour adhered to the neighbouring parts by continuity of substance: it did not appear softened, but of the same nature as the tubercles which had their seat in the inferior lobe of the right lung.

The urinary and genital organs appeared in the natural state. The ribs were very hard, and very difficult to break.

Reflections.—In this subject, there were no tubercles but in the side of the lung opposite to the seat of the chronic pleurisy.

It is also important to remark, that the fistula at the anus appeared owing to the same cause as the tubercles, which, in time, would have produced symptoms of Phthisis.

The union of pulmonary Phthisis and of the fistula ani, is common enough; and often these two diseases depend on the same cause:

but whenever they have not the same origin, it is always imprudent to cure a fistula ani in a subject who shews symptoms of pulmonary Phthisis, for after the cure of the fistula the Phthisis makes more rapid progress. But every fistula which is not the consequence of a tubercular degeneracy, and which is not complicated with pulmonary Phthisis, is an inconvenient complaint, which may be cured without fearing any grievous consequence. The callosities in this sort of fistula should not impose upon us: they are not then the effect of a tubercular degeneracy, but of a simple inflammation succeeding to, and kept up by the fistula. Again, these callosities, which arise in the course of time in the soundest subjects, disappear spontaneously when the fistula is cured.

44th Observation.

(By M. Cayol.)

Circumscribed Chronic Pleurisy, which, by its symptoms, and even on opening the body, might have been taken for a Pulmonary Phthisis.

A herb-seller at the Halle, 44 years of age, tall and thin, with a pale complexion, very black hair, sharp and rather broken voice, was subject to spit much in the mornings since his 25th year; and also to have his breathing a little oppressed, and to be out of breath after any fatiguing exercise. In spite of these inconveniences, and a kind of life very laborious, he arrived at the age of 42 without any serious disorder.

In the month of February 1808, one morning at the market he was seized with cold, and not being able to warm himself, he drank a glass of wine. He had a tremor upon him the rest of the day; and from this time he dates the commencement of his last disorder. He lost his appetite; his habitual cough grew much worse, and his breathing was much oppressed. He could not follow his work, and entered the Charité the 16th of March following.

I did not begin to observe him till the first days of January, 1809; he was then in a thin state, very little short of marasmus. He expectorated every day from one to two pints of transparent ropy and frothy liquid, like the

white of egg whipped with a good deal of water. The breathing was laborious and loud; the slightest motion, even without getting out of bed, increased the oppression for some moments, and excited violent and very fatiguing fits of coughing. The beatings of the heart were neither strong nor irregular: the pulse was rather frequent, and the skin hot. The sleep was very bad, because of the extreme frequency of the cough: he had been long constipated: the appetite sustained itself pretty well.

For more than a year, counting from his entrance into the hospital, his state was uniformly the same; expectoration the same, and in the same quantity; breathing oppressed and sonorous, sometimes with a sort of whistling; cough very frequent, accompanied with a stuffing, and a sense of tearing in the chest; pulse constantly frequent and very regular. The cold weather appeared in general to augment his sufferings. The emaciation and feebleness made very slow but constant progress.

Till the month of April, 1809, he was still able to take the exercise of walking in the

wards; but from this last period he did not quit his bed any more. He was constantly found lying on his back, a little turned to the right side; his head upon his spit can. The appetite continued; the diarrhœa occurred from time to time, but it did not continue long. The ends of the fingers became the seat of a red shining and painful swelling, which appeared to affect exclusively the articulation of the last joint.

In the month of July following, sharp pains occurred in the right leg, and the tibia of this side appeared a little tumefied upon its inner surface. The two wrists swelled also, particularly the right, and this tumefaction arose evidently from the enlargement of the bone. Though he asserted that he had never had a syphilitic affection, he was made to take each day, in a pint of compound hydromel, a spoonful of the liquor of Vanswieten; and a Vigo plaster was applied to his leg. This treatment having been continued fifteen or twenty days, he did not complain any more of pains in the legs: the extremities of the fingers remained a little swelled and painful. At intervals the wrists returned to their natural state.

Nevertheless the expectoration was rather less abundant, and exhibited moreover a character not before noticed: it produced a great deal of verdigris upon the sides of a brass basin, which served him for a spit basin. One remarked also some yellow and globular sputa, which swam in the liquid. His face was thin, always very pale, even during the attacks of suffocation which accompanied the severe fits of coughing.

At the beginning of November there took place a very abundant diarrhœa, which was moderated after some days by the use of the white decoction and diascordium; but at the end of the month it returned with more severity, and was excessively fœtid. Being long in an advanced state of marasmus, he found his strength in a few days entirely annihilated, and foresaw that this diarrhœa would carry him to his grave. His limbs became œdematous for the first time. He expired the 7th of December, at six in the morning.

Even to the evening of his death, he did not lose his appetite; and retained to the last moment the use of his intellectual faculties.

Opening of the Body, 25 hours after death.

The larynx and the trachea were in the natural state. The mucous membrane of the bronchiæ was slightly redened.

The left lung adhered to the costal pleura by means of an accidental membrane, evidently organized, similar to the dura mater in thickness and solidity, and traversed by many conspicuous blood vessels. The pulmonary tissue was perfectly sound.

The right side of the chest appeared at first sight in the same state as the left. An accidental membrane of the same nature covered the anterior and superior part of the lung; but in separating this viscus from the ribs, one discovered at its external and inferior part a cavity containing at least eight or ten ounces of a greyish liquid, muddy and extremely fœtid. The sides of the cavity, smeared over with a greyish pappy covering, seemed formed all round by pulmonary tissue; but, after a pretty long examination, and a careful dissection, it was evident that this focus was situated

outside the lung. Its external part was formed by the pleura costalis, from three to five lines thick, almost cartilaginous, smeared with the greyish purulent covering already mentioned, and with some plates of a substance soft and black as coal. This apparent thickness of the pleura was owing to a false membrane which was closely united to it, and which, beyond the limits of the focus, was evidently continuous with the false fibrous membrane which served as a medium of union between the rest of the lung and the neighbouring parts. The sides of the focus were formed within by the lung itself hollowed out; not by erosion, as one would have believed on a superficial examination, but by the compression produced by the gradual accumulation of the liquid.

In effect, when one had scraped and removed by washing freely with water the greyish purulent covering, and the black matter or melanosis which covered the sides of the cavity, it was easy to see that the lung was entire throughout; and that if there were points in which it began to be affected, at least these ulcerations were of very small extent and very superficial, since their existence was disputed

by two persons well versed in pathological anatomy. There was no passage of communication between this focus and the bronchiæ: the pus also had no resemblance to the liquid expectorated during life.

The pulmonary tissue was sound in all parts. The heart and large vessels were also natural. The mucous membrane of the ileum and of the cœcum were strewed with red spots; but there was no ulceration.

The liver was sound; and the bladder contained much bile of a deep green colour.

The omentum, and all the other folds of the peritonæum, were entirely deprived of fat. There was nothing remarkable besides in the abdomen.

Note.—See the Reflections on the 41st Observation: they are equally applicable here.

45th Observation.

(By M. Moutard Martin, D. M. P.)

Chronic Pleurisy which might have been confounded with Phthisis before the death of the patient, and which, at the opening of the body, might have passed for a large and deep ulceration of the lung.

An old soldier, 62 years of age, entered the Charité the 2d February, 1807: had had different intermittent fevers; and two months before his admission at the hospital, he had lost his appetite, having been seized with a tertian fever, which was immediately suppressed by the cinchona. He soon after this got a cold, which made him spit abundantly. The 28th January the rheum still continuing, he was seized with a sharp pain at the right side and middle part of the chest; the respiration was become very laborious, and the expectoration less copious and very difficult; the pulse became frequent and free; the tongue was covered with a yellowish white coating; the belly continued free.

During the first days of February there was no change in the patient's state; but by little and little the fever diminished; the pulse became every day less elevated and less frequent; the belly remained very free; the want of appetite continued. Towards the middle of the month the sputa became very abundant; they were mucous, and at times mixed with a little blood. He was obliged to have the head and the chest somewhat elevated: very often he leaned upon the right side. The thorax did not sound on the right side on percussion, and very little on the left.

Towards the end of February the appetite returned a little; the tongue appeared to grow clean; the cough diminished. The left side of the chest did not any longer give a dull sound on percussion. The sputa were merely ropy, and not copious. There was scarcely any fever. He slept easily on either side, and appeared much better.

The first days of the month of March the sputa began again to be abundant, and evidently purulent; the appetite vanished; the diarrhœa took place; the flesh became flabby; the

strength diminished every day; the pulse was frequent and feeble. His right side did not sound by percussion: he remained generally on his left side; and died in this position the 7th of March, about seven in the morning, being very thin, though he was not in the last degree of marasmus. (For the last two days the right side began to sound a little, on percussion, towards the upper part.)

Opening of the Body.

The skull was not opened.

The right lung, adhering by its anterior edge to the pericardium and to the portion of the pleura nearest the sternum, by means of a compact cellular tissue, appeared at first view to fill the right cavity of the thorax; but it was separated from the middle portion of the ribs by a collection of yellow and thick pus, similar to that of a phlegmon. This liquid compressed the lung laterally, and formed on its outward surface a large and deep excavation, extending from its upper part to within two inches of the diaphragm. This muscle had contracted such firm adhesion with the inferior surface of the

lung, that it was not possible to separate them. The posterior face of the lung adhered, though less strongly, to the spine and ribs in a small part of their extent. The purulent collection was so abundant, that the lung was reduced to one third its size. The cavity which contained this pus was formed below by the pulmonary substance; anteriorly, it was formed in part by the lung, and in part by the sides of the chest; and posteriorly, the lung formed it only in a small extent. Its outside corresponded to the pleura covering the ribs; and its internal surface, which one might regard as its bottom, corresponded in its whole extent to the external surface of the lung, of which the parenchyme appeared to be the seat of a large ulcer. After the discharge of pus, all the surface of the cavity which contained it was covered with purulent flakes, which adhered feebly, and were removable by washing. Underneath, the pleura appeared very thick, unequal and yellowish; but this appearance was owing to an accidental membrane of the thickness of a line and half, of a texture apparently fibrous, and of a pretty solid consistence. This false membrane adhered inseparably to the pleura. By means of a section made in the thick part, the pleura ap-

peared evidently thicker and denser than natural: from thence it was very evident that the tissue of the lung was not ulcerated, though appearances led to the contrary opinion.

We searched a long time in vain for an opening of communication between the purulent collection and the air passages, and perceived at length at the lower part of the lung, among the inequalities of the false membrane, an opening that would admit a female catheter. This opening penetrated very obliquely into the pulmonary tissue, and after a tract of about three inches, it appeared continuous with a bronchial ramification of the same caliber. The sides of this species of fistula were smooth, as if the pleura had sunk down to cover them; and the portion of the pulmonary tissue, in which this accidental passage was formed, had a colour and a density almost like that of the lung in its natural state. We did not perceive the slightest trace of pus in this fistula, nor in the bronchiæ where it terminated. (It is proper to state, that the lung was plunged in water for a moment.) In slitting up the trachea and principal bronchial ramifications, the mucous

membrane appeared to be red: it was covered by a yellowish mucus. The portions of the lung which adhered, shewed so much the more redness and density the nearer they were to the diaphragm. On throwing a morsel into water after cutting off the portion lying immediately under the pleura, it sunk: nevertheless, in pressing it a little to give issue to the liquid with which it was choaked up, one perceived still the cellular appearance, except in the portion adhering to the diaphragm. In its anterior and superior two thirds this lung, though compressed, was sound and crepitating: its tissue exhibited, however, a clear red colour.

The left lung, every where adhering by means of a compact and ancient cellular tissue, was sound in its anterior and superior two thirds; but the inferior lobe, the adhesion of which to the diaphragm was very intimate, shewed more redness and density than the rest of the lung: on being well cleared from the part immediately under the pleura, it sunk in water.

The cellular tissue of the mediastinum

was rather more dense than in the natural state. The pericardium contained about an ounce of serum.

The heart was nearly a quarter larger than natural, which was owing principally to the enlargement of its right side, where the cavities were dilated and the sides thickened. They contained blackish clots, similar to currant jelly, and besides, a little fibrine distended with serum. The arch of the aorta was rather dilated.

The liver was large and of the natural colour; only there were on its under surface many small spots of a pale red.

The density of its tissue was increased, and the granulations very large. The gall bladder, of the size of a hen's egg, contained ropy bile of a deep green, which had transuded upon the duodenum.

The spleen was three times its ordinary size; it was heavy, and its tissue the colour of chocolate; its density almost equalled what is natural to the liver.

The stomach, contracted within itself, was no larger than the colon is usually, which was itself contracted, but perfectly sound, as well as the rest of the intestinal canal. The last circumvolutions of the small intestine were a little red by the injection of the capillary system. The mucous membrane was perfectly sound.

The pancreas and the mesentery were sound, as well as the urinary and genital organs.

Eighth Section.

OBSERVATIONS RELATIVE TO DIFFERENT DISEASES THAT ARE OFTEN CONFOUNDED WITH PHTHISIS.

This Section includes—1st, a case of chronic peripneumony, which resembled Phthisis;—2d, a history of slight peripneumony, designated under the name of obstruction of the lungs;—3d, two observations of patients who expectorated a matter quite like pus, and in whom the lungs were soft, crepitating and sound;—4th, some histories of pulmonary catarrhs which resemble Phthisis, and which terminated fortunately.

I have collected a great number of particular histories, which prove the cure of various diseases resembling pulmonary Phthisis: they were almost all catarrhal affections. There are few physicians who have not observed some varieties of these pulmonary catarrhs, both acute and chronic, which are so similar to Phthisis, that they may impose on very attentive observers. I thought I ought to mention some examples here; but as one could not know with certainty in what state the lungs were in those persons who have perfectly recovered their health, I will premise these Observations by two others in which the patients died, (*Obs.* 48 & 49). This fatal issue is extremely rare in pulmonary catarrh; but it becomes very instructive when the bodies are opened, because it shews in an evident manner, that in these diseases the nature of the lesion of the lungs is totally different from that which constitutes Phthisis. These diseases, of which I am speaking, impose daily on those who persuade themselves that they cure a certain number of phthisical patients, and who publish even examples of these cures which appear miraculous. When one is informed of the real state of things by dissection, it is not difficult to com-

prehend in these catarrhal diseases why the cure is sometimes so easy.

As to the rest I ought to observe, that the variety of chronic pulmonary catarrh, of which I adduce examples, (*Obs.* 48, 49, 50, 51, 52, 53, 54,) has been designated under the name of mucous Phthisis. But I do not think catarrhs ought to be ranked in the number of Phthisies: this would be to groupe together diseases, which are, in their nature, quite different, since they have only a resemblance to one another in symptoms, whilst the organic affections which constitute them have evidently no affinity.

If I had not been afraid of becoming excessively prolix, I would have added, in a ninth section, many observations relative—1st, to patients who have died after repeated hæmoptysis, and in whom the lungs were not tubercular;—2d, to individuals reputed phthisical, who have died of other affections quite different from pulmonary Phthisis and chronic pulmonary catarrh. But since these facts are not rare, those who devote themselves to the study of pathological anatomy will easily meet

with them, and the attentive reading of collections of Observations will present numerous examples.

46th Observation.

Chronic Peripneumony, which resembled Phthisis.

A labourer, 62 years of age, of a bilious temperament and a strong constitution, with a large chest, short neck, countenance full and coloured, subject to an habitual dyspnœa, enjoyed in other respects good health, when he was taken, at the end of the month of July, 1803, with a frequent cough, with oppression in his whole chest, and general uneasiness. He expectorated a tenacious and yellowish mucus; and almost totally lost his appetite. His habitual difficulty of breathing increased; and he had in the evening a little fever, which continued during the night. Nevertheless, he did not grow thinner; but he could not work. At the end of about three months and a half of habitual suffering, he determined to enter the hospital, where he was received the 8th of November, 1808. He had still much *embon-*

point; but the softness of his flesh, and a sort of flaccidity of the subcutaneous cellular tissue, proved the state of decay which began to shew itself. He experienced for more than two months a deep seated, but very obscure pain in the right side of the chest, and could not breathe, unless when he sat up in bed, or was standing. The chest, when struck, sounded moderately on the left side, and hardly any on the right side. The cough was strong and laborious; and from time to time the sputa presented a slight streak of blood, and were besides moderately abundant, thick, white and puriform. The pulse was constantly frequent, and the skin hot; but in the evening and night there was a marked exacerbation, and sometimes abundant night sweats.

The appetite had not completely disappeared. The stools and the urine were nearly natural.

The tenth of November fever strong; appetite gone; sputa rather bloody; an increase of all the other symptoms. The evening was very distressing: the rattle shewed itself in the middle of the night, and he ex-

pired at nine in the morning, on the 11th of November.

Opening of the Body.

Head.—All appeared sound in the cranium.

Thorax.—The mucous membrane of the trachea was sound, as well as that of the bronchiæ and of their ramifications. The lungs adhered strongly to the contiguous parts by means of an accidental membrane, fibrous, very solid, and of long standing, more than two lines thick on the sides of the ribs, near the mammary region, and more than a line in other places.

The left lung was soft and crepitating in its whole extent: it was of the black of ebony mixed with red, but otherwise very sound. The right lung was large, redish in almost its whole extent, fleshy, firm, and almost as dense as the tissue of the liver: the morsels which were thrown into water sunk rapidly.

The heart was large, but sound. There

was in all its cavities coagulated black blood; and in the left ventricle a yellowish clot, soft, albuminous and fibrinous, which extended into the aorta and into the large vessels.

Abdomen.—The liver was large, and rather more firm than in the natural state. One would have thought at first that there were large cicatrices on its surface: these were nothing but large portions of its peritoneal membrane become very thick and rather white. Besides, the liver was sound internally. The gall bladder was large, and its sides were very thick. The spleen, the pancreas, the mesentery, as well as the urinary and genital organs, were in the natural state.

The stomach and the intestines appeared sound. The mucous membrane of the stomach, and that of the small intestines, were covered with white, thick, and ropy mucus. After taking off this bed of mucus, one found the mucous membrane very red: this redness was owing to an infinite number of capillary blood vessels, very visible to the naked eye. The villi of this membrane appeared also very red in a great many points, and they contributed to

form spots of deeper red than one perceived in different parts of the stomach.

The flesh, though soft and easy to tear, was of a pretty deep red, as is usual after most inflammations.

Remarks.—I could add here many other Observations on the varieties of chronic peripneumony which resemble pulmonary Phthisis, particularly when it is accompanied with a puriform expectoration of an opake white. It would appear that chronic peripneumony lasts sometimes more than a year before producing death. Nevertheless we do not find usually, either suppuration or tubercles in the lungs; which shews clearly that simple inflammation is not sufficient to produce tubercles in this organ, when there is not previously a predisposition to tubercular degeneracy. But there are sometimes tubercles in the lungs of individuals who have died of chronic peripneumony. The disease is then a true combination of chronic peripneumony and pulmonary Phthisis. But in these complications, it will be always very difficult to distinguish whether it is the inflammation which has given rise to the tubercles,

or these last which have given rise to the chronic inflammation; or if the inflammation and the tubercular affection are independent of one another.

In the case that I have been mentioning the heart was large, though there was no aneurism; and the subject in question experienced for many years an habitual dyspnœa. Dyspnœa is almost always the consequence of the heart being too large, and particularly the left ventricle. Most of the individuals who have the breath short have the neck very short, the chest large and short, and the heart large. This structure, which one regards often as a predisposition to apoplexy, occasions much more frequently dropsies & diseases of the heart, and even sudden deaths without injury of the brain. We know that diseases of the heart also produce short breath, whatsoever may be the length of the neck, and the form of the chest; but it is rare that, without disease of the heart, or palpitation, subjects otherwise well formed experience short breathing, if the chest and the neck are not very large and too short.

Most individuals who die of diseases of the

heart experience a very considerable oppression in the whole of the chest, and particularly a sense of very distressing constriction at the epigastrium, and a sort of bar at the pit of the stomach. These symptoms appear owing to impeded blood, and catarrhal obstruction of the mucous membrane, as well of the air vessels as of the stomach, and even the intestines. During life, the catarrhal affection in question occasions sometimes an excretion of puriform sputa, which gives to the disease the appearance of a suppuration of the lungs.

The catarrhal obstruction we are speaking of exists in almost all subjects affected with disease of the heart; but it produces very rarely symptoms capable of making one take the disease for a Phthisis of the lungs: and although this is a mistake into which one might fall sometimes, one would discover the error nevertheless with the greatest ease after death; for in those patients who have appeared phthisical, without in fact being so, one finds only the lesions that are always seen at the termination of diseases of the heart. Such of these lesions as have reference to the mucous membranes reduce themselves, as we

have said, to catarrhal obstruction, and to the injection of the capillary blood vessels. One finds the mucous membrane of the air passages, and that of the digestive canal, thick, red, and exhibiting a great number of spots formed by the developement of an innumerable quantity of capillary blood vessels, and by an obstruction from blood in all the villi of the mucous membranes.

One observes also every where upon these membranes an astonishing quantity of thick, glairy, and ropy mucus, which is the product of symptomatic catarrh, occasioned by the injury of the principal organ of circulation. It is to this catarrh that the sense of constriction is owing which tortures those so cruelly with disease of the heart, when they experience the first symptoms of the consequent dropsy, which eventually is always fatal.

47th Observation.

Obstruction of the Lungs, or slight Peripneumony with Typhus Fever.

A taylor, 24 years of age, of a sanguine

temperament, red hair, and a pretty good constitution, had been ill eleven days, when he was admitted at the Charité, the 29th September, 1807.

From the commencement of his disorder, which began with cold shivering, he had a very severe continued fever, with dizziness of the head, violent head ache, dulness of hearing; hard and frequent cough, accompanied with ropy, slimy, and transparent expectoration. He felt an inexpressible general uneasiness in all parts of the chest, though without any local pain in it, and the cavity sounded well on percussion throughout. He had also pains in the loins, and at the epigastric region.

The 30th September, twelfth day of the disease, the same symptoms; slight redness of the face; bitterness of the mouth; no desire to vomit; tongue rather white; dry cough, hard and frequent; dulness of hearing more decided. No pain at the epigastrium; belly not distended, and soft; slight diarrhœa; urine in the natural state; pulse tense, frequent, and not strong; heat of the skin very moderate. He was ordered

whey sweetened and nitre, the infusion of borage with honey, a clyster, a simple julep, and five portions of broth.

The 1st of October, face more flushed; tongue of a bright red in the centre, very yellow and moist at the edges; pulse more tense and more frequent; cough, and expectoration of some ropy, transparent, thick, and tenacious sputa. The same prescription was repeated.

The 2d of October, he said he was better; had less agitation; the belly was very soft; the cough appeared easier; the sputa were rather more abundant and less ropy; but the tongue was dryer, and there was blood in one of the sputa. The third of October there was a dry line in the middle only of the tongue: the state of amendment continued.

The 4th of October the face was less red than the preceding days; the sputum was more abundant, thicker and less transparent, and there were more threads of blood in it: otherwise he continued to find himself better than the preceding days. He was ordered whey

with tamarinds, infusion of borage with simple oxymel, three doses of Stahl's powder, and five portions of broth.

The 5th of October the sputa were still of the same nature; but they were somewhat thicker, and began to assume a puriform aspect. The belly was soft: but the tongue was very dry in the middle, and yellowish its whole length.

The voice became hoarse; there was a sharp heat of the skin; the pulse was tense and rather frequent. The patient, who said he was pretty well, continued lying on his back: his features were depressed: he sunk always towards the feet of the bed, whatever efforts were made to raise him towards the bolster. He was prescribed whey with tamarinds and cinchona, vegetable lemonade, boluses with camphire and nitre.

The 6th October there had been slight delirium the whole of the night: the sputa resembled a greyish, liquid, purulent matter; some of them were besides tinged with blackish blood. The face was red and animated;

the tongue brown, dry, and rough to the touch. There was a very vivid and pungent heat of the skin. The pulse was tense and frequent. The belly was still soft, and he passed his stools in bed.

The 7th of October, active delirium all the night ; tongue black and rough ; teeth covered with a sooty incrustation ; belly pretty soft ; pulse of the same frequency as the evening ; expectoration more and more thick and opake. There were some bloody sputa ; all the others perfectly resembled the purulent matter seen upon pledgets which have covered a large wound that has furnished much good pus. The chest continued to sound well on percussion in its whole extent. The same medicines were continued. The 8th of October, the tongue was dry and black as a coal ; the pulse was tense and frequent. There was constant delirium ; the belly was swelled and distended with gas ; the expectoration was still of the same nature, but much less abundant than the evening. The 9th of October, the expectoration again more abundant. Some of the sputa were liquid, yellowish and rather bloody ; others were of an ash-coloured white, opake,

thick and puriform; besides he twice spat pure blood, black and clotted. Nevertheless, the pulse was become very frequent, very feeble, and almost thready; the hands and the nose were ice cold; he scarcely spoke from the evening before. Each inspiration was accompanied with beating of the alænasi: the face was long, cold and pale. During the day his strength was quite exhausted, and at three the state of agony was compleat. He expired without convulsion at nine in the evening, the 21st day of the attack of the disorder.

Opening of the Body.

External state.—The parts of the body he had laid upon were very much gorged with blood.

Head.—In the cranium, all was perfectly sound: the blood vessels contained liquid blood. The vessels of the substance of the brain yielded many small drops of blood: there were about three drachms of serum in each lateral ventricle, and one ounce at the base of the skull.

Thorax.—The mucous membrane of the air vessels was red, and covered with puriform and bloody mucus.

The lungs were almost entirely free; there were only two or three small cellular plates which attached them slightly to the ribs. Their superior lobes were soft, crepitating, and sound; the inferior lobes were large and much gorged with black blood, as well at their anterior as their posterior part. They exhibited in their whole extent a tissue similar to that of the spleen, soft, and of a very brown red, which exhaled a fœtid odour that penetrated the eyes and the throat. In cutting these lobes, a very large quantity of blood was made to issue from them, also bloody serum and frothy mucus. There was no albuminous exudation at their surface. Portions of the anterior part of these lobes sunk when thrown into water.

The heart was pale, very flabby, and empty. The blood was not coagulated in any of the large vessels.

Abdomen.—All the alimentary canal was distended with gas. On pricking it, the whole

canal sunk within itself, and became extremely flaccid.

The stomach appeared sound; the small intestines contained a little mucus and bile: the mucous membrane of the extremity of the ileum was of a slate black colour, a colour that was perceived also in the cœcum, and even in membranous folds of the peritonæum, which form the inferior part of the mesentery, the meso-cœcum, and the commencement of the meso-colon: there was no trace of gangrene, and the parts that were grown black had lost nothing of their solidity and of their consistence. —A lumbricoid-ascarid and many trichurid worms were found in the cœcum.

The large intestines contained a certain quantity of very yellow bilious matter. The mucous membrane of the small intestines was not ulcerated.

The liver, of a sulphur yellow, contained little blood; the gall bladder, which was sound, contained a liquid yellow bile. The spleen was large, soft, and very brown. The pancreas appeared sound, as well as the kidneys: the

bladder was large, flabby, and of a blackish red. The muscles were brown and clammy: the whole body exhaled a fœtid odour, and putrified very quickly.

Remarks.—I shall content myself with placing here this history of slight peripneumony, designated under the name of obstruction or inflammation of the lungs. This obstruction is one while acute, as in the history I have just given, and at other times chronic. In the latter case, the symptoms of the disease sometimes resemble very much those of Phthisis, particularly when the sputa, in place of being glairy and frothy, are of an opake colour, and a puriform appearance. But when the patient dies, the lungs are found in the same state as in this subject; with this difference, that in the case of mere obstruction, the odour of the serum which issues from the lungs after death does not irritate the eyes, as in the case just mentioned. In this, we may attribute this peculiarity to the nature of the fever attending the disease. It would be superfluous to relate observations on chronic obstruction. This disease is indeed very frequent; but it is rare that it occasions puriform sputa, and it is only in

this last case that it can be confounded with pulmonary Phthisis.

As for the rest, it seems that this inflammation, designated under the name of obstruction of the lungs, appears to be an intermediate state between peripneumony and pulmonary catarrh, and these three inflammations may equally present themselves under an acute or chronic form.

48th Observation.

Consecutive Pulmonary Catarrh which resembled Phthisis, and which ended in death.

A baker, 23 years of age, of a sanguine bilious temperament, having black hair, brown skin, long neck, narrow chest, and not enjoying a good state of health, was subject to frequent colds, which lasted sometimes many months together in the winter. He had one of these which lasted near a month; when on the 25th of November, 1806, he experienced during the whole day slight shivering fits, a general uneasiness, fever, and desire to vomit. The next day, he was obliged to keep his bed:

he could not eat. The 27th he had vomitings, and his cough was much stronger than ordinary. He experienced deep pains in the chest.

The 28th, eyes watery, head stuffed, cough strong and frequent; pain in the throat, which was very red. The whole thorax, as well as the face and the abdomen, exhibited an infinite number of small red and irregular spots; there were some of them upon the arms and the legs. The tongue was very white. The 29th, the eruption covered the whole body: it was of a bright red; and all the spots being united, it seemed that the whole skin was the seat of an erysipelas. Nevertheless, there was only very little swelling. The 30th, the same state; agitation, violent delirium during the whole night; thick sputa, and mixed with strings of blood. Delirium during the whole day.

The 1st of December, the redness of the skin was much diminished, but it had taken a vinous colour. The following days it diminished progressively, and it ceased altogether towards the 5th of December. But the cough continued; and the sputa were abundant, of a

greenish white, opake, and altogether similar to pus.

The continuance of these symptoms occasioned the patient to be taken to the hospital, where he was received the 10th of December, 1806. The physician who had attended him up to the time, gave the above information.

The 11th of December, the state of the patient was this:—The whole body was remarkably thin; the epidermis came off in branny scales upon the face, in large straps upon the thorax and abdomen, and in small flakes upon the limbs. The face was uniformly red and rather livid; the lips were swelled; the conjunctiva rather red and a little injected. The pulse was small, frequent, and rather irregular. At the same time, there was heat of the skin, night sweats, slight diarrhœa, frequent cough; very abundant expectoration of an opake, yellowish and greenish white, quite like purulent matter. Respiration short, frequent, laborious; slight ratling; tongue white in the middle, very red at the edges; thorax sounding well throughout. He was ordered whey sweetened, a pectoral tisane with honey,

some leeches to the anus, and a blister to the side. The following days, the state of the patient appeared a little improved; he respired more easily, and he had no more ratling; besides the cough and expectoration remained the same; there were night sweats and a profuse diarrhœa.

The 18th the appetite began to return. The 19th he got bread and wine brought to him from out of doors, and indulged in them to excess. In the evening, towards nine o'clock, he was seized with suffocation and ratling, and he expired at nine. He was extremely thin.

Opening made more than 30 hours after death.

The body was of a livid colour; the blood was liquid almost every where, though it was not in great quantity. The limbs had still the same flexibility as before death.

Head.—All was sound in the cranium.

Thorax.—The heart was very sound. The two lungs adhered to the surrounding parts by

means of some cellular layers; they were both one and the other soft and very crepitant, though their tissue appeared a little red when cut into. There was neither tubercle nor hardness in any place. The mucous membrane was rather red, and a little thickened in the trachea; it was still more so in the bronchiæ and the bronchial ramifications; and the redness was the more marked, the farther one pursued the subdivisions of these ramifications. One saw throughout in these bronchial pipes a matter similar to that the subject had expectorated during life; and it was only after having scraped this matter, that one saw the swelling and redness of the mucous membrane.

Abdomen.—The stomach was sound externally: it contained little food: its mucous membrane was uniformly a little redeñed. The intestines appeared sound externally; but internally one saw many red spots, large and not circumscribed, all along the small intestine, which contained much alimentary matter. The large intestine contained liquid fœces; its mucous membrane was unaltered.

The spleen, the pancreas, and the mesen-

tery, were in the natural state, as well as the urinary and genital organs.

Reflections.—The patient who is the subject of this Observation, had a chronic pulmonary catarrh which resembled Phthisis, and which owed its origin to scarlet fever. This fever, as well as the measles, is sometimes accompanied and followed by a sharp irritation of the mucous membrane of the air passages, which, when not subdued, induces sometimes the death of the patient; but, as I have said before, (Chap. vii. p. 75) when there were no tubercles in the lungs before the attack of the eruptive fever, there are not found after death either tubercles or ulceration of the lungs; and one is obliged to acknowledge, that the patient was not affected with Phthisis pulmonalis, though he had exhibited the symptoms of it. It is not the same, when already there were tubercles in the lungs at the time the scarlet fever or the measles occurred; for then the patient sunk under Phthisis pulmonalis: but it is important to distinguish well this Phthisis from the pulmonary catarrh which resembles it, in order not to attribute to eruptive fevers the origin of Phthisis, of which they only accelerate the progress and fatal termination.

Amongst the individuals who die of pulmonary catarrh after eruptive fevers, some die in the last degree of marasmus, after having exhibited all the symptoms of pulmonary Phthisis, though the parenchyme of the lungs remains untouched; others die a little time after the termination of the eruptive fever; and these last perish by consequence of the excessive irritation of the mucous membrane of the bronchial ramification, because this irritation makes the vital action of the lungs to cease, and occasions suffocation, though the mechanical movements of respiration have not been restrained. The countenance then acquires a vinous red colour in the last periods of life; the heat continues a long time after death; the blood does not coagulate; and the limbs preserve sometimes a remarkable flexibility.

49th Observation.

Chronic Pulmonary Catarrh which resembled Phthisis, and which ended in death.

Peter B——, 77 years of age, of a sanguine temperament, formerly a cook, and having no

longer any employment since the revolution, entered the Charité the 30th September, 1803. He had been complaining nearly four years of frequent cough, with mucous expectoration, at one time puriform, at another transparent and ropy. He had been obliged to keep his bed for three months back, because he felt sharp pains in the coxo-femoral articulations, and those of the knees and feet. There was no swelling at the painful parts, and he had not grown very thin: he had still an appetite; had difficulty and pain in making water. He passed near a month in the hospital, and grew better from day to day. The 23d January, 1804, he was removed to the convalescents. He very soon felt pains in his heels, his knees, and along the thighs. Sometimes the pains passed to the back of the head, where they became very severe; at other times they were perceived at the superior insertion of the recti muscles of the abdomen. The cough was increased; the sputa were opake, thick, round, of a yellowish white, and like pus. The pulse became small, feeble, unequal, and intermittent; but it was not too frequent: his thighs were grown thin. He was brought back to the medical ward. During the month of

February, and even to the 18th of March, he was still nearly in the same state.

The 19th March, a great number of dry spots broke out all over the body, pretty large, and of a blackish blue colour: they were particularly numerous upon the lower extremities. A few days after he lost his appetite; his tongue became dry: he expectorated mucous sputa quite puriform, and he had a continued fever. He was still in the same state the 22d of March.

The 24th, a ratling was perceived in the thorax when he breathed. Nevertheless the chest sounded well on percussion.

The 25th March, had the rattle two days; the voice did not appear altered; the pulse very frequent; the cough strong; the mucous sputa very abundant and like pus: nevertheless he had still some appetite.

The 26th to the 29th he had still the rattle, and the mouth half open; but his eyes were bright enough, and he spoke freely when he was asked a question, which appeared astonish-

ing; for during these five days, when he closed his eyes, he appeared to be at the last gasp.

30th March, in the morning he was in the same state; but the pulse was become extremely small and feeble: nevertheless he still answered very well the questions that were asked him. He died quietly the same day at two in the afternoon.

Opening of the Body.

The mucous membrane of the trachea and of the bronchiæ appeared in a sound state: it was white and scarcely thickened. A puriform mucus was every where to be seen in the bronchial tubes.

The lungs were soft, crepitating, and perfectly sound: that of the left side adhered to the pleura by some very thin cellular layers. The right presented also some adhesions of its inferior lobe with the mediastinum and the diaphragm; and the cellular layers which formed these adhesions were red, and exhibited traces of recent inflammation.

The liver, the spleen, the pancreas, the mesentery, the stomach, and the intestinal tube, appeared in the natural state.

The kidneys and the bladder did not shew any injury to which one could attribute the dysuria that had been observed occasionally during life.

The psoas muscles, particularly that on the right side, were very soft, and swelled with black blood.

The cellular membrane of the legs, particularly under the eruptions, was of a brown red, which was owing to the flux of blood, which however did not appear extravasated.

Remarks.—This patient had a chronic pulmonary catarrh. He experienced rheumatic pains, complicated with a scorbutic affection, produced probably by a want of exercise, the air of the hospital, and the cold and moist temperature of the season. He died, after having spat matter for a long time which resembled pus. Nevertheless he had neither tubercles nor ulceration of the lungs, nor any trace of peripneumony. The mucous mem-

brane of the bronchiæ was not even redened, which is not rare in the chronic pulmonary catarrh, in very feeble persons in whom the heart is not large.

This opening of the body, as well as the preceding, appears to me sufficient to shew the state of the lung in the pulmonary catarrh which resembles Phthisis, and also to distinguish this disease from pulmonary Phthisis.

It is shewn in Observation 46th, what are the characters of the affection of the lungs in chronic peripneumony. It is thus that by accurate examination one might avoid confounding diseases which differ in the nature of the morbid changes they induce, as well as in their mode of terminating, and which require a different kind of treatment, notwithstanding their resemblance in some of their symptoms.

50th Observation.

Chronic Pulmonary Catarrh resembling Phthisis, terminating in recovery.

Madame F——, 28 years of age, of a strong constitution, and of a lymphatic and

nervous temperament, plump & fresh coloured, experienced some difficulty of breathing in ascending a stair-case, and for the last two winters had a slight dry cough, which disappeared in the summer. She had lain in four months, when she consulted a physician in November, 1802: she did not suckle her child, and the catamenia returned regularly, but she had leucorrhœa habitually; and a slight dry cough, which took place during her pregnancy, still continued. She was somewhat reduced.

In December the cough became more frequent; there was a pain at the epigastrium extending towards the back. The strength and *embonpoint* diminished from day to day; and towards the end of the month there appeared, in consequence of the cough, sputa formed by a transparent mucous matter, mixed with opake white streaks and some strings of blood. The pulse was frequent, principally in the beginning of the night.

The 5th January, 1803, emaciation, circumscribed redness of the cheeks, heaviness of the head and eyes, vertigo, a dazzling of the sight; tongue clean; a little thirst; strong and frequent

cough; chest sounded well on percussion; no pain in the chest; easily out of breath; a slight pain at the epigastrium on pressure; abdomen soft; obstinate constipation; pulse soft, sufficiently developed, frequent, particularly in the evenings; night sweats; puriform sputa, almost entirely of an opake white, and containing from time to time strings of blood. She had a pectoral diet drink with honey, whey, pediluvium, and the application of leeches to the pudendum.

During the months of January and February no change of symptoms: emaciation progressive; constipation; sputa, more abundant from day to day, had still a purulent aspect. Many medicines were tried without any success. The catamenia did not return.

In the month of March the sputa were opake, of a greenish white, and always resembled purulent matter: there was slight diarrhœa. The emaciation was considerable; the skin was dry and earthy. She was now ordered acidulated astringent drinks, bitters, and resinous and opiate pills. The diarrhœa soon ceased; the cough became less; the expectora-

tion diminished much, and the other symptoms lessened by degrees. The same treatment was continued during the month of April. At the end of this month there was neither cough nor expectoration; the catamenia had re-appeared, and every thing announced a complete recovery.

Some time after, Madam F—— proved pregnant; she had an easy parturition, and from that time to this day (26th of May, 1810) experienced no threatening of Phthisis, nor any return of the chronic pulmonary catarrh, but a slight dyspnœa only, as before the attack of the pulmonary catarrh we have been treating of.

Reflections.—Madame F——'s disorder commenced by a dry cough, which preceded her pregnancy; it made rapid and alarming progress after her confinement. She expectorated puriform sputa, mixed with small strings of blood: she had hectic fever, night sweats, and a slight diarrhœa. She grew progressively thinner, and her catamenia disappeared. Every thing seemed to announce a Phthisis, at least at the 2d degree: it even appeared to have

reached the third, when the resins, the bitters and opium were made use of. The disease then altered its form, and the patient recovered as by enchantment. It would be absurd to regard this fortunate issue as an example of the cure of pulmonary Phthisis at the third degree: it is very clear that this disorder was no more than a chronic pulmonary catarrh, of which the severity was increased by the habitual dyspnœa, and by the state of debility which occurred after lying in. At the time I attended the patient, I acknowledge I thought her affected with Phthisis of the lungs. The cure undeceived me; but those who were witnesses could not be equally undeceived, though I acknowledged my mistake to them.

51st Observation.

Pulmonary Catarrh resembling Phthisis, ending in recovery.

M. B——, 56 years of age, tall, and of a strong constitution, with very brown hair, and a well-formed chest, though rather long, had spat blood several times in his youth, and usu-

ally after excessive fatigue in the counting-house: nevertheless, he had habitually enjoyed a pretty good state of health.

After having exposed himself to cold whilst perspiring, in the beginning of the month of August, 1807, he was seized with a cough attended with a sense of uneasiness in the back; and the day after he began to expectorate abundant white sputa.

The 16th of August, the same symptoms continued: there was some moisture in the night time. The pulse was large, full, hard, free, but without frequency; the appetite appeared pretty good; the stools and urine were as in health; the sputa were abundant, of an opake white, and altogether like pus. They had also a little resemblance to the appearance of Brie cheese, when in a very soft state. Some sunk in water, others swam. They were not mixed with any transparent striæ, nor any pituitous mucus.

He was put on the use of fowl broth and ass milk, and was forbid every thing exciting.

18th of August, the same state, only the sputa were again whiter and more abundant; they were perfectly opake and homogeneous. He had heat in the palms of his hands, and a little moisture. Medicines were prescribed similar to the preceding, which were continued.

From the 19th to the 24th, the quantity of the sputa diminished a little, and one began to perceive some streaks of transparent mucus; but there were some little threads also of blood, situated in the transparent striæ. From the 25th of August to the 4th of September, the quantity of sputa became less from day to day; the strings of blood were no longer to be seen; the matter of expectoration became transparent, and marked with a number of very small black points.

Towards the middle of September, there remained no longer any trace of this disorder. From this time to the month of June, 1810, M. B—— enjoyed very good health.

Reflections.—M. B.'s disorder was a real acute pulmonary catarrh; it was accompanied with some signs of plethora, and the patient

had not been debilitated; besides, the resins, bitters and opium, would have been injurious to him, whilst the use of diluents, of fowl broth and asses' milk, had procured him speedy relief, and was followed by a perfect cure. These last would have been injurious to the patient who is the subject of the 50th Observation. It is evident that these two diseases, though of the same kind, required a quite different treatment; that neither one nor the other could be referred to pulmonary Phthisis; and that their cure could not be adduced as a proof of the efficacy of either antiphlogistic or exciting treatment in pulmonary Phthisis.

52d Observation.

Chronic Pulmonary Catarrh.

Madame L——, 40 years of age, of a bilio-nervous temperament and elevated stature, with a long neck, narrow chest, and brown hair, irregular for five years back, had grown very thin for six months without having a cough, when she lost the sense of smell in the month of September, 1807. Very soon after,

she was seized with a dry and strong cough, which returned by violent fits. At the end of 15 days she began to expectorate opake sputa, of a yellowish white: she lost her appetite, sleep and strength; and some time after, towards the middle of the month of October, she determined to apply to a physician. Her state was as follows:—Face pale and dull, thinness remarkable; cough very frequent and very strong, returning in violent fits; pain of breast, perceived principally behind the inferior third part of the sternum, and at the dorsal region; respiration short and frequent; sputa very abundant, of a greenish white, opake and puriform; tongue clean; thirst urgent; little appetite; constipation; skin dry; heat and moisture at the palm of the hands, cold in the soles of the feet; abundant night sweats; urine almost as in health; pulse small, sharp, frequent. She was prescribed rest; a diluent diet drink; veal broth, whey, a pectoral potion and pottage for diet.

During the whole month of October this disease grew worse daily; and at the beginning of November she was obliged to keep her bed. She had from time to time an abundant diarr-

hœa, which lasted seven or eight days, and which was followed by a fresh constipation: the stools were at times very glairy; the appetite returned, and became even sharp enough, but it was of short duration; the sputa became still more abundant, and swam in a large quantity of diffluent phlegm. Different medicines were tried without success: stimulants exasperated all the symptoms; composing medicines moderated them, but they did not cure the disease.

Nevertheless, the thinness had proceeded even to marasmus; the limbs were thin, the ribs were projecting, the figure thin; the pulse constantly small, sharp and frequent. The rubefacients employed in November had appeared to augment the irritability, and exasperate all the symptoms; the resins produced the same effects.

Since there had not been more blood in the sputa than 18 ounces per day, and as the patient, naturally of great sensibility, appeared not to have severe symptoms but by reason of her great excitability, the physician who attended her did not consider her phthisical;

and the great quantity of mucous matter that there was in the stools, confirmed him in this opinion: there remained still some uncertainty about the character of this disease. In December, he directed a large blister to be applied to the whole left side of the chest, which was made to suppurate abundantly; and at the same time, he gave constantly small doses of opium, an astringent drink slightly acidulated, and rice-milk for diet. At the end of 15 days of this treatment, the quantity of sputa had much diminished, and there was no more diarrhœa; the pulse was not frequent, and the appetite had returned. She was able to take, without inconvenience, pills composed of turpentine, opium, and balsamum copaivæ; and syrup of tolu was put into her drink. At the end of December, the blister was healed; there was no more expectoration; the cough had almost entirely ceased; the appetite had returned. At the beginning of January, 1808, her strength was restored, and the convalescence compleat. The patient only expectorated some sputa, speckled with black points. She was directed a diet drink of ground ivy, with the syrup of erysimum; and every other night two pills, containing each four grains of cynoglossum. Jan. 15,

there was neither cough nor expectoration. From that period to this day, (28th Feb. 1810) the health has been good; strength and *embonpoint* are perfectly restored; and there has not been the least menace of a return of the disorder.

Remarks.—Amongst the subjects affected with pulmonary Phthisis, some expectorate a purulent matter, particularly at the latter end of their life; others, in much greater numbers, do not expectorate purulent or puriform sputa, but only a great quantity of thready and transparent mucous matter, in which float yellowish, greenish, or opake white sputa. Some do not experience any pain of the breast; others have only a pain behind the inferior third of the sternum, or at the back; and some others, in fine, perceive painful points in different parts of the chest. We see that persons who are not phthisical, may have all these symptoms united, and all the appearances of pulmonary Phthisis; insomuch, that it is sometimes extremely difficult to find out the disease that is before us. One cannot then practice too much circumspection in the diagnosis of diseases of the chest; and it is very imprudent to decide

from a superficial examination. The treatment requires no less prudence. We see, by the preceding Observation, that medicines which on the first attempt appear injurious, may be employed with the greatest success, when certain changes occurring in the state of the patient permit us to return afresh to their use. It is probable that if the patient, who is the subject of the preceding Observation, had not had remedies administered, she would have died of the catarrhal affection. Nevertheless we must not decide, even in this respect, but with the greatest reserve; for in the following Observation we shall see a disease of the chest which did not seem less severe, and yet terminated happily without the assistance of art.

53d Observation.

Chronic Pulmonary Catarrh, having all the appearances of Phthisis, cured spontaneously.

G. L. B——, Doctor in Medicine, 27 years of age, very subject to affections of the mucous membranes, but very seldom to pulmonary catarrh, was seized with a dry cough the 6th

July, 1802: since which time he took more exercise than usual, and very often drank beer when he was very warm, which increased the thirst instead of subduing it. Has a well formed chest, clear chesnut hair, and the skin very white. Is nervous, and born of very healthy parents.

The 11th of July, after a severe fit of coughing, he expectorated many ounces of a white opake matter, mixed with several transparent streaks. This matter came up under the form of round sputa, which did not mix with one another. From this day to the end of July the expectoration still continued, and exhibited almost constantly the same characters; it was in the quantity of eight or ten ounces in twenty-four hours.

He had little appetite on particular days; at other times the appetite was very sharp; the pulse was habitually frequent; and every day, after six in the evening, there was a circumscribed redness in the cheeks, with a burning heat at the palms of the hands and soles of the feet: sleep was disturbed by the cough,

and in the night he sweated profusely on the breast and neck.

During the month of August the same symptoms continued; almost all the sputa fell to the bottom in water, and some of them dissolved in it, making it a little ambiguous. At different times, sputa tinged with blood were intimately mixed with the matter expectorated. The emaciation besides made evident progress; and he had one while a diarrhœa which continued many days, at another obstinate constipation. He experienced at the bottom of the chest deep seated oppression and suffering, but no well-defined pain. He considered his disorder to be a pulmonary Phthisis, and the physicians he consulted were of the same opinion. In this conviction, he would not make use of any medicine; and arranged his affairs, so that he might have nothing to trouble him at his last hour.

During the month of September no change took place to raise a hope that the disorder would not be rapid, and he had deliberately fixed the period of his death in the month of

November. He lived with this persuasion, and the other physicians had the same opinion on the issue of this disorder.

On the 18th of September his situation was as follows: emaciation very considerable; skin dry and earthy; pulse sharp and frequent; countenance pale in the day, and with circumscribed redness of the cheeks in the evening; night sweats; cough frequent, especially in the evening; sputa opake, abundant, round, and homogeneous; tongue red and clean; eyes shining, and larger in appearance than before the disorder; sleep light; thirst urgent; little appetite; diarrhœa, (five or six stools in the twenty four hours.) No anxiety; no regret at terminating his career at so early a period of life.

The 19th September, at six in the evening, quick and violent shivering, which continued nearly three hours. At the end of the rigor, burning heat; pulse full, developed, frequent; profuse sweats during the night: the nurse who sat up with him had occasion to change his shirt twenty-two times; the sweat wetted the mattress and bed clothes. There was not even

a single fit of coughing, nor did he spit once: the diarrhœa subsided.

The fever continued to the 24th September. The skin then became quite clean; and the 25th September the appetite appeared again. From that moment his convalescence was very clear: a suitable regimen was followed with exactness. Towards the middle of October his health was perfectly re-established. No medicine was made use of during any part of this disorder.

From this time to the month of February, 1810, G. L. B—— has had different complaints; but he has had no rheum, nor any affection that had the least relation to pulmonary Phthisis; and he enjoys actually a good state of health.

Reflections.—This disorder, which exhibited most of the symptoms of pulmonary Phthisis, terminated all at once after three months' duration. The attack was sudden; the termination was a true crisis, and could not be attributed to any medicine: after the crisis, neither cough nor oppression of the breathing remained. The resolution of a tubercular affection, or the disappearance of transparent

miliary granulations, &c. would not have been in this manner, supposing these terminations could have taken place at all.

We shall see in the 54th Observation the cure of a catarrhal disorder also resembling Phthisis, and which, after having resisted the use of medicines which appeared the most proper, got spontaneously well by change of air and climate. I could mention many more examples of similar cures obtained by the same means : but one does not succeed in the same manner, in prescribing change of climate to persons affected with true pulmonary Phthisis ; physicians also agree, that it is particularly in the first degree of this disease that it is proper to make their patients travel. A journey is then very useful ; for catarrhal disorders are often cured by this means, and tubercular Phthisis singularly restrained in its course.

54th Observation.

Chronic Pulmonary Catarrh, resembling Pulmonary Phthisis.

M. D——, about 22 years of age, was seized, in the beginning of January, 1808, with

a dry cough, which he regarded as a mere cold, and did not apply any remedy.

Being of a middle size and a moderately strong constitution, he had naturally the voice rather shrill and obscure. He had devoted himself habitually for two years to laborious and uninterrupted study.

Soon after the attack of cough, he lost his appetite; his sleep became agitated and disturbed with profuse night sweats: he experienced at the same time, different troublesome nervous affections; and amongst others an involuntary sadness, and even an irresistable propensity to shed tears. Besides, he grew thin, and his strength diminished every day. Towards the middle of February, he consulted me. I put him on the use of emollient pectoral drinks. The 29th of the same month, the disorder took on a severe character: he spat up a great quantity of bright red and frothy blood, from six till nine in the evening. The following days the hæmoptysis returned, sometimes from three to four times a day: leeches to the anus, astringents under different forms, bathing the feet, &c. produced little effect; and it was not

till the 20th of March that the spitting of blood was stopped. During this time the emaciation made rapid progress ; the cough ceased to be dry, and was accompanied with a pretty copious and altogether puriform expectoration ; very sharp pains were felt in the chest ; the pulse was constantly feverish ; the night sweats were so abundant, that it was necessary to dry the mattress every day.

The discontinuance of the hæmoptysis produced no change in the course of the other symptoms. Nevertheless, this slight success having raised a little the spirits of the patient, I induced him to return to the bosom of his family, more on account of some private reasons, than from any hope that he was to recover his health. I recommended to him, nevertheless, the use of antiscorbutics, a residence near the sea-shore, and moderate and habitual exercise.

He quitted Paris the 3d of May : the motion of the carriage in a journey that was long and laborious, seemed to do him good. The pleasure he felt in seeing his relations and friends was still more sensibly serviceable, and

so much so, that the patient was deceived as well as his family. He eat and slept as if he had been in perfect health, and perceived even some strength and agility, from whence he thought himself almost well; but the day after his arrival, all was changed: this apparent convalescence disappeared all at once, and he was confined to bed for three days by very sharp pains in the breast. He sent for an experienced physician, who prescribed a mild and very exact regimen. At first he did not find much relief; however, in three months he recovered a little strength, and was able to remove to a small sea-port, a few leagues distant—the place where he was born. The sea air seemed at first to do him good: he drank cows' milk, and took some excursions on the water and in a carriage. He soon after perceived his strength return, and was in a state to exercise himself both on foot and on horseback. He accustomed his stomach, by little and little, (to make use of his own expression) to digest all sorts of aliment: he grew extremely fat. Towards the end of October, i. e. after three months' residence by the sea shore, his *embonpoint* was such, that it degenerated into obesity. He again experienced the sense

of great feebleness, though he was capable of making long and frequent excursions by the sea shore. This feebleness continued a long time, and only disappeared slowly: the *embonpoint* decreased in the same proportion; and being perfectly recovered, he was able to resume the course of his studies at the Faculté de Droit de Paris, in the month of April, 1809.

At this period, though he did not feel himself any longer feeble, he preserved still an *embonpoint* extraordinary for his age: he had the form of a man of 50 years, a little too fat. This *embonpoint* diminished by little and little during the course of the year following; and now (May, 1810) he retains only a little more than he had before his disorder.

During the course of the last winter he caught a cold, which followed the same course as those which prevailed at the time, and terminated quickly and easily.

RECAPITULATION

OF SOME POINTS OF DOCTRINE ESTABLISHED IN THIS TREATISE.

Among the diseases which resemble pulmonary Phthisis, it often happens that there are some which terminate in a favourable manner; insomuch, that we see a certain number of patients get well, who have experienced symptoms so much like those of pulmonary Phthisis, that one would believe them affected with this disorder. The affections of the chest which have the most frequently deceived physicians in this respect, are the chronic pulmonary catarrh, the chronic peripneumony, obstruction of the lungs, and symptomatic pulmonary catarrh.

When we have not had frequent opportunities of observing the state of the lungs in the first degrees of Phthisis, we are induced to believe, that in the last period only this viscus

contains tubercles which have suppurated, ulcerations, and the various lesions which render pulmonary Phthisis incurable; and that the first degree of this disease consists at one time in an obstruction of blood in the lungs, at another in a chronic inflammation of this viscus, at another in tubercles susceptible of resolution. From these different conjectures, then, it would seem that Phthisis, at its first degree, admits of a cure when it is properly treated: nor does it seem probable that tubercular degeneracies, miliary granulations, and the various lesions which constitute Phthisis, have already made dangerous progress when they do not yet produce any remarkable symptom, or only occasion slight inconvenience. Nevertheless, it is difficult to withstand the evidence and the multiplicity of facts, which appear to prove that these lesions are ordinarily already incurable even when their existence is first discovered. Let us remember these facts, and try to exhibit them in their full light.

1st. When an accidental disease destroys a person affected with pulmonary Phthisis in its commencement, or at its first degree, we always find the lesions of the lung I have mentioned, and no appearance of their tendency to get

well. It is not from two or three insulated observations that I discovered this truth : it is from very extensive inquiry, and after numerous dissections of subjects in whom Phthisis was at its first periods.

2d. Chronic peripneumony, obstruction of the lungs, chronic pulmonary catarrh, symptomatic catarrh which accompanies diseases of the heart and other affections of the chest, sometimes resemble Phthisis pulmonalis. But when individuals die of any of these disorders, or when any other accidental cause brings on their death, we do not find in the lungs any of the lesions which are remarked in the first degrees of pulmonary Phthisis.

3d. When phthisical persons have had partial inflammations of the parenchyme of the lungs surrounding the tubercles, or when they have experienced severe hæmoptysis which has endangered life, if they recover a better state of health, and after having been in marasmus appear convalescent, they still retain a dry cough or some other symptom, which discloses the existence of Phthisis, of which the progress is not interrupted, though the com-

plication which made it more alarming has been cured. Some individuals arrived at this state of apparent convalescence sink under some other accidental disease, and the state of the lungs demonstrates then most evidently that the Phthisis was not getting better. Tubercles in the lungs never terminate in resolution, any more than those which arise in other parts: they remain stationary, or have a tendency to grow soft and to suppurate, as I have always stated, as well before the publication of my remarks on tubercular degeneracies as since that time.

4th. Miliary granulations appear to be of a nature similar to that of cartilages; and when they have displayed themselves in the lungs, they produce there a state of irritation, permanent and impossible to be destroyed.

5th. Cancerous Phthisis, in its first degrees, is not less incurable than granular and tubercular Phthisis; for schirrous tumours never terminate by resolution, any more than tubercular affections.

It is true, that we find in books of medicine

many examples of the cure of cancerous diseases, more or less advanced: and various practitioners have seen cured by topical means, by internal medicines, or even by the efforts of nature alone, tumours which they thought schirrous, and for which they had advised extirpation; but I am well convinced, that in all these cases they were deceived respecting the true nature of the disorder; and as the best informed men have not always been secure from such mistakes, it may not be useless to present here some reflections which will shew whence this happens.

Often, in my researches in pathological anatomy, I have had occasion to examine glands which have been regarded as schirrous, or as tubercular, and which did not exhibit the least trace of these degeneracies: they were merely enlarged, hard, and almost always a little red, i. e. in a state of chronic inflammation. Nevertheless, in examining them only externally, they shewed so much resemblance to tumours really schirrous, that they might have deceived the most attentive observers; and if the death of the individuals had not enabled one to rectify this mistake, these glandular obstructions,

from their nature curable, would no doubt have disappeared, and thus one would have believed firmly and in good earnest that he had cured, or witnessed the cure of schirrous tumours. The chronic inflammation of glands, their schirrous induration, and their tubercular degeneracy, are three alterations of tissue which have not always their distinctive characters well defined, and it is even sometimes impossible to distinguish one from another before dissection. In all, the tumour may either be indolent or painful, supple and still a little elastic, or very hard and very resisting: these three alterations of glands have also been confounded under the common name of *lymphatic obstruction.* But it is unquestionable, after all we have already said, that they are diseases essentially different in their nature, their course, and their termination; though in certain circumstances the external appearances, and the symptoms which accompany them, do not admit of their being distinguished.

6th. I have shewn that we commit great error, when we take for a schirrus the chronic inflammation of a glandular part; but the error is as great, when we take a chronic inflammation

of the chest for a pulmonary Phthisis. In both cases we arrive at false conclusions, particularly when the disease terminates in recovery.

But is it very certain, that the pulmonary Phthisis is not a chronic inflammation? We have seen heretofore, *(page 79 & following)* that the tubercular degeneracy cannot be considered as a termination of inflammation: we have seen, that after chronic inflammations which have lasted for a very long time, we did not find in general either tubercles or schirri in the lungs, *(page 82.)* In fine, I have made the remark, that when tubercles are met with in an individual affected with chronic inflammation of the chest, they are sometimes in the lung of the opposite side to that which is the seat of the inflammation, *(page 85.)*

Why then has inflammation been regarded as the first degree of cancerous diseases and of tubercular degeneracies? Why has chronic inflammation of the lungs been regarded as one of the most usual causes of pulmonary Phthisis? We shall see very soon the source of these opinions.

Schirrous indurations and tubercles usually occur without producing inflammation; (*p.* 82) but sometimes at their commencement they produce a slight phlogosis, or even a true inflammation, which dissipates itself after some time. When the inflammation is cured, there remains a hard and indolent tumour, which appears to be the result.

It has been concluded from some analogous cases, that schirri and tubercles are produced by inflammation; and that cancers and Phthisis owe primarily their origin to inflammations terminated by induration. Nevertheless, far from being the cause of schirrous or tubercular tumours, the inflammation is, on the contrary, the effect; and it is observed to return several times when the tumours, which gave rise to it, increase afresh. On the contrary, we see tumours, either schirrous or tubercular, which are indolent, and which acquire a very large size without producing the least inflammation; shewing clearly, that when this last is united with a schirrous, or with a tubercular degeneracy, these ought to be regarded as the primary disorder, whilst the inflammation ought to be considered as a consecutive affection.

The frequent union of chronic inflammation with tumours, whether schirrous or tubercular, is not a more sufficient reason for regarding schirri, tubercles, and chronic inflammation, as diseases of the same nature, or rather as different forms of the same disease. Corns on the feet are frequently attended with inflammation of the adjacent parts: there is unquestionably an intimate connexion between the existence of the corn and that of the inflammation. We shall fall, nevertheless, into a manifest error, if, because of the frequent union of these two diseases, we conclude that they are of the same nature.

But the inflammation, whether it be acute or chronic, can it not contribute in any manner to the production of tubercles, or to that of schirri ?

It appears to me very probable, that chronic inflammation may contribute to the developement of schirri or tubercles, in subjects who are already predisposed to them. It acts, in this respect, as intermittent fevers, as provisions of bad quality, as living in low and moist places; and, in one word, as all these

debilitating causes. In effect, amongst the individuals who have a predisposition to cancerous tumours, or to tubercular degeneracies, there are some who experience chronic inflammation sometimes in one part, sometimes in another. These inflammations bring after them a state of general debility; they disorder the parts which have been the seat of general inflammation: they may thus sometimes contribute to the developement of schirri, or of tubercles in different parts, and especially in those which have been the seat of the inflammatory irritation. But these cases are much more rare than one would believe; and almost constantly, when we meet in phthisical persons a chronic inflammation combined with tubercles, these last are the primary disorder: sometimes also in these cases we find tubercles in the mesentery, as well as the lungs. *(page* 85.*)*

Since chronic inflammations do not contribute to the developement of schirri, or of tubercles, except as debilitating causes, and this only in those individuals already predisposed to this degeneracy, it is evident that the inflammation is not the first degree

of schirrous tumours, nor of tubercular affections, but that these are primary diseases.

The question which I am discussing is not one of that idle nature, wherein it is indifferent which side we take: the treatment of pulmonary Phthisis, as well as that of many other diseases, is subordinate to the opinion we adopt of the nature and the causes of the organic lesions which produce them. If chronic inflammation, tubercular affection and cancerous diseases, are only different degrees of one and the same disorder, the treatment of these organic degeneracies ought to be nearly the same at the commencement. If these three diseases, on the contrary, are essentially different, as I think they are, each requires a peculiar treatment.

7th. It results from what I have stated, that chronic inflammations and catarrhal affections may resemble Phthisis, and that they may even contribute to its developement. Hence it follows, that physicians of the greatest talents deceive themselves sometimes in the diagnosis of these different diseases; and in

consequence of this mistake we see some individuals get well, whom one would have believed to be affected with an incurable disorder. These cures have given rise to two opinions diametrically opposite, which divide practitioners; some regarding pulmonary Phthisis as curable at the second, or even at the third degree—others being convinced, that it is incurable at every period.

There are still other disorders which are regarded by many physicians as incurable; and by others not less estimable, as admitting a cure. Whence can arise this difference of opinion concerning the issue of particular diseases? After mature examination, this will appear less astonishing than one would at first be induced to believe. Among diseases regarded as incurable, particularly in their last degrees, are some very similar from their first attack to other diseases which terminate usually in a favourable manner. Diseases whose symptoms have so much analogy, may be confounded with the greatest ease; and thus one might take a spasmodic vomiting for a schirrus commencing in the stomach, or even a chronic

pulmonary catarrh for a pulmonary Phthisis. Having committed this mistake, we direct the treatment for that disorder of which we believe we have perceived the symptoms. Thus, for example, we direct for a pulmonary catarrh the treatment that would be prescribed for a pulmonary Phthisis. It happens sometimes that this treatment is followed by a prompt recovery, whether the cure depends on the treatment, or proceeds from the efforts of nature alone. When the disorder is cured, the symptoms of the last degree are thus prevented; and in consequence we have had the opportunity of observing those only of the first, or at most of the second degree, i. e. equivocal symptoms, which being common to many diseases, cannot demonstrate with certainty that there has not been an error in the diagnostic. Besides, in pulmonary Phthisis, in schirrus of the stomach, and in some other affections, it is easy to be deceived when the disease is at the first degree. It happens even sometimes, that one cannot arrive at a complete certainty on the nature of the disease, except by opening the body; since, as we have seen in this chapter, patients not phthisical exhibit all the symptoms of Phthisis,

(Sect. viii. Obs. 48, 49, 50, 51, 52, 53, & 54*)*; whilst other patients, really phthisical, have not the symptoms of this disorder. *(Sect. vi.)* Besides, in diseases regarded as incurable by many physicians, and as curable by others, see what happens pretty constantly:—A patient, whom one has judged to be seized with one of these affections, as for example pulmonary Phthisis, or a schirrus of the stomach, does he happen to get well, those who regard Phthisis and cancer as necessarily incurable, rest persuaded that there has been an error in the diagnostic; whilst, in the same case, those who think that we can cure such affections in their first periods, are confirmed in their opinion, and far from admitting that the cure proves that they were mistaken in the nature of the disorder, they think that it is a new proof of the possibility of curing these diseases in their commencement.

When other individuals who have exhibited the same symptoms, and have been treated in the same manner, sink after arriving at the last degree of marasmus, such physicians as regard the disease beyond the resources of art are

confirmed in their opinion: others agree indeed, that this disease does not always get well, but they are not the less persuaded that it is sometimes capable of being cured.

It is thus that facts, which should seem to have the power of terminating all disputes, and clearing up the most obscure points in science, furnish new subjects of controversy, and become a new source of error. In order that observations may contribute to the progress of medicine, it is necessary that they be made accurately, repeated a great many times, and always illustrated by a profound knowledge of the nature and course of diseases, which, manifesting themselves by analogous symptoms, proceed nevertheless from lesions essentially different.

In reflecting on the Observations introduced in this chapter, physicians may form a just idea of the probabilities of cure which a pulmonary Phthisis presents in its different periods. But whatever opinion we adopt on the possibility of curing the disease, it is certain, that we ought not always to despair of the life

of phthisical persons, since some arrive at a very advanced age, though affected with this disease from the time of puberty, or even from their infancy.

FINIS.

PLATE I.



Drawn by Wm. Browne.

Etched by E. Smith.

Published by Dr. Barrow, Liverpool. April, 1815.

PLATE II.



Drawn by M.Brearley.

Engraved by E.Smith.

Published by D.r Barrow, Liverpool. April, 1813.

Medicine
KE 19
1815-B