FACTS AND OPINIONS RELATING TO TUBERCULOSIS, WITH COMMENTARIES.

By HENRY ANCELL, Surgeon.

NO. IV.

In my last paper, I explained the sense in which the term "tuberculosis" is applied to a diseased condition of the animal economy, the origin alike of consumption and of scrofula. This disease, in the view of some pathologists, is a morbid "action", as indicated by the radical meaning of the suffix "osis"; and tubercle is the special anatomico-pathological element of the morbid condition or morbid action. The paper embraced facts relating to the frequency of tubercle in 2,161 autopsies, made at St. George's Hospital, during a period of ten years, the relative number of males and females affected in this number of cases, and other interesting particulars, drawn from the *Decennium Pathologicum* of Dr. Chambers. The present paper will give some account of the pathological appearances in connexion with tubercular deposits in the lungs, observed in the same series of cases.

Of all the morbid appearances accompanying tubercle in the lungs, the results of inflammatory action are undoubtedly the most frequent and the most important. Various opinions were held at one time as to the relation that subsists between the special morbid deposit and these appearances; the deposit having been attributed by many, in the infancy of this branch of pathology, to the inflammatory action, this latter being regarded as a necessary antecedent or concomitant of that action, a doctrine which was at all times disputed. Of late years, in this country at least, the question appeared to be so far settled, that both our theory and practice have proceeded on the principle that tubercles may be deposited in any organ independently of inflammation, and that, in a majority of instances, inflammatory action is a consequence, and not a cause of the deposit. Two papers have, however, been lately published by Dr. Sieveking, in which the author considers that he has established by microscopical observation the inflammatory origin of tubercle. One of these papers, under the title of *The Seat of Tubercle*, appeared in the *British and Foreign Review* for April last, and the other, with the title of *Illustrations of Tubercle*, in the *ASSOCIATION JOURNAL* of May 27. After stating the more important statistical facts, I propose to make a few observations suggested by them, and by a perusal of Dr. Sieveking's papers; advertent also to the views of Dr. J. H. Bennett, of Edinburgh, on the subject of inflammation in connexion with tubercles, contained in a valuable work *On the Pathology and Treatment of Pulmonary Tuberculosis*, just published.

The anatomico-pathological appearances in the lungs, attributable to inflammatory action, which Dr. Chambers's papers contain, are those usually referred to pleuritis and pneumonia. The great frequency of pleuritic adhesions, and of the signs of inflammatory action in the pleura, is confirmed by the statistics of the *Decennium Pathologicum*; nevertheless, there is a great discrepancy between the results obtained by Dr. Chambers and those previously recorded by Louis. The eminent French pathologist found adhesions in every instance except one, in 112 subjects, where death had been produced by phthisis. The pleura is not mentioned in the records before us, in 95 of the 514 cases where tubercle was found in the lungs. Dr. Chambers conjectures that in a part of these it must have been overlooked; but we trust that such a circumstance could have happened in a very few cases only, for, if so obvious a pathological lesion were overlooked in from one-fifth to one-sixth of the cases, as indicated by the numbers, the value of the statistics is very much diminished.

Old adhesions were found without evidence of recent inflammatory action:

In 50.2 per cent. cases of hard tubercle.	
" 55.3 " " vomicae.	
" 53.6 " " tubercle in all stages.	
" 29.2 " " diseases in general without tubercle.	

The evidences of recent pleurisy, consisting of purulent or soft fibrinous matter, were found:

In 21. per cent. cases of hard tubercle.	
" 23.2 " " vomicae.	
" 22.5 " " tubercle in all stages.	
" 20. " " diseases in general without tubercle.	

Combining together the evidences of inflammatory action in the pleura, old and recent, there were found:

In 71.3 per cent. cases of hard tubercle.	
" 78.8 " " vomicae.	
" 70.2 " " tubercle in all stages.	
" 42.6 " " diseases in general without tubercle.	

In 27 additional cases, fluid occurred in the pleural sac, without other evidences of inflammatory action.

These facts are in accordance with the observations of Louis, as to the absolute frequency of pleuritic adhesion and the effects of inflammation in tuberculosis, and their relative frequency in this as compared with other diseases. But, as before remarked, the frequency was much less than in Louis's cases. In explanation of this circumstance we must bear in mind that M. Louis's were all fatal cases of tuberculosis pulmonalis, whereas these include fatal cases from a great variety of causes other than pulmonary affections, in many of which the deposit of tubercle in the lungs was a secondary affection; and we can readily conceive that in such cases congestion, irritation, and inflammation in the pleura would be much less likely to occur than when tubercles are primarily developed in the lungs, the pulmonary form of the disease pursuing its usual insidious and progressive course to a fatal termination.

Dr. Chambers concludes, from the evidences of pleurisy being nearly as frequent in association with hard tubercle as with vomicae, that pleuritis is a concomitant rather of the early than of the later period of pulmonary tuberculosis. He concludes also, that in the last and most fatal stage, tubercle is less liable to produce inflammatory action in the pleura than many other diseases, and that after vomicae are found, old adhesions appear to operate as a check to pleurisy and also to the effusion of blood; this latter being an exceptional occurrence.

Condensation or hepatisation of the lungs was found in 45.4 per cent. of the males and 44.2 per cent. of the females affected with tubercle of the lung. In the 171 cases of crude tubercle it occurred in 28 per cent.; and in the 343 cases of vomicae in 49.2 per cent. Hence its frequency increased with the advanced progress of the disease. At different periods of life, the ratios in which it occurred were as follows:—

	RATIO PER CENT.	
	Males.	Females.
*Under 16 years of age.....	40.	35.2
" 15 to 30.....	46.7	47.5
" 30 to 45.....	38.5	51.6
" 45 to 60.....	44.4	9.
Above 60.....	40.	
Age unknown.....	38.4	44.2
Total of all ages.....	45.4	44.2

Dr. Chambers is of opinion that the condensation or hepatisation, hitherto most frequently attributed to inflammation, is, in a great majority of cases, of a non-inflammatory nature; and, with a view to test this point, an elaborate table is given of the frequency with which it occurred in males and females, at different periods of life, both with and without the evidences of pleurisy. The result is, that, in 11.7 per cent. of males and 16.6 per cent. of females, it coincided with the effects of pleurisy; and, in 30.4 per cent. of males and 25.6 per cent. of females, it occurred alone. This is taken as evidence that hepatisation is independent of inflammation within the chest. In the advanced cases also, where evidence of inflammation of the pleura was least frequent, hepatisation of the lung was most frequent.

These circumstances lead Dr. Chambers to the conclusion, that the condensation is often asthenic and non-inflammatory. He considers that it depends upon a state of

* From Medical Times and Gazette, Aug. 28, 1852, p. 213. The ratio in this table would probably differ somewhat, if drawn from the corrected copy.

atrophy akin to the condition of lungs that have never respired, in the new born infant, or which have become degenerate from chronic bronchitis impeding the entrance of air. In 11.7 per cent. of the males, however, and 16.6 per cent. of the females, its probable inflammatory origin is admitted owing to the coexistence of pleurisy. Dr. C. admits also that inflammatory condensation may be met with after death without the results of active inflammation of the pleura; that inflammation of the pleura may have been subdued, leaving only adhesions of the sac; that the formation of adhesions in the early stage checks and prevents pleuritis in the latter stages; and that pneumonia may occur with the total absence of pleuritis. So that I fear the cases and the observations of this author will have very little effect in settling this interesting and very important point.

Dr. Sieveking's papers, to which I now beg the reader's attention, relate to the morbid appearances of tubercular lungs observed microscopically, and especially to the evidences of inflammatory action which they present. This author unhesitatingly affirms, that, "on close examination of incipient tubercular deposit, we may always note that there is congestion of the tissues surrounding it"; and again, that "the deposit is never effected without those local and molecular changes in the vascular system characterised by inflammatory action." Thus, the tendency of these communications is retrogressive. If the statements they contain be true, and admit of universal application, as assumed, and even boldly asserted, by the author, we must revert to the Broussaisian or a more ancient doctrine. One of these papers was read before a learned society previous to its publication; and I am totally ignorant of the manner in which the subject was treated by the assembled members; but of this I am certain, that the profession will require cumulative or very conclusive evidence before the principles sought to be established can be adopted. The remark is scarcely necessary, that it is one of those principles in relation to the theory of tuberculosis which must, to a greater or less extent, modify our practice in every form of the disease.

Dr. Sieveking founds his opinions on his own microscopical examinations. Admitting a pre-existing "tubercular cachexia", or disease of the blood, and paying me the compliment to quote my work on this part of the subject, he teaches that tubercle takes its origin from blood in this diseased state; but it is never deposited in the more solid structures without congestion and inflammatory action. In illustration, the author states that, in connexion with the deposit of tubercle in the pia mater of the Sylvian fissure, we see an increased redness, in which a few vessels are more prominent than usual; in the pulmonary parenchyma, we may, especially by the use of the microscope, discover the engorgement of the capillaries, investing the air vesicles in which the tubercle is being secreted; in the mucous membrane of the intestines, we see "the exquisite arborescent arrangement of the congested vessels, tending from the mesenteric attachment to the point where we observe the deposit shining through the mucous surface from the submucous tissue in which it is collected." These are the instances given, the amount of vascular action accompanying the elimination differing in different individuals.

There cannot be a momentary doubt that the whole of these appearances have presented themselves again and again to Dr. Sieveking. So they have to myself, and to every microscopist who has looked for them; and there can be as little doubt that they occur in a very large number of cases, from a very early period of the disease. But this by no means establishes the coincident occurrence of tubercle and inflammation as a constant fact, nor the doctrine of a necessary relation between the occurrence of inflammation and the deposit of tubercle.

In the first place, as to facts. I will abstain from quoting observations the direct converse of those described by Dr. Sieveking, to be found in the works of the most eminent pathologists of former years, by which both the theory and practice of Broussais and his followers were

overturned; but, from more recent authors, I will give illustrations which, if to be depended upon, completely invalidate the generalisation sought to be established by the author. Turning to Dr. Hennis Green's paper on Tubercle in the Brain in Children,* which comprises a most careful analysis of 30 cases, and was published in 1842, long subsequent to the agitation and apparent settlement of the question of the necessary inflammatory origin of tubercle, we find the following statement:—"In many cases, we cannot discover the slightest change in the surrounding nervous substance, or in the neighbouring membranes." Looking, in the next place, to the lungs, Mr. Rainey,† whose microscopical observations are too apt to be passed over, thus describes the state of the vessels where tubercle is deposited. "The perfectly natural appearance of the vessels close to a tubercle, and even of the cells containing a small quantity of tubercular matter, not sufficient to have impeded their circulation in the capillaries during life, when compared with the tortuous and unequally dilated state of vessels going to air cells filled with fibrine, in consequence of inflammation,—are pathological considerations in favour of the non-inflammatory nature of phthisis." In reference to the serous membranes, Carswell and various authors state that, where minute tubercle is scattered over the pleura or peritoneum, the membrane in most cases remains transparent up to the tubercular point, and only becomes reddened or opaque when the tubercle begins to act as an irritant, or passes into some new phase of development. In Lebert's description of the microscopical appearances presented by the mucous membrane lining the intestines, it is stated that, where tubercle has been deposited, the membrane is found at first to be perfectly sound, then slightly raised by the aggregation of tubercular matter; and it is not until subsequently that it becomes injected and softened.

These recorded observations might be received as conclusive both as to the matter of fact, and the inference that might be drawn from such a fact, were they not liable to be met with the arguments that microscopists may be deceived, and that their views were often erroneous in the earlier periods of microscopical observation; that our attention is more completely fixed upon the point; our instruments improved; that we know better the extent of power to employ; and that our observations are more correct. Dr. Sieveking is also a gentleman of undoubted ability and reputation, and founds his opinions on his own examinations: it is, therefore, due to him to examine a little further into the details of the subject.

In the next place, then, as to the doctrine sought to be established, "that the deposit of tubercle is never effected without those local and molecular changes in the vascular system characterised by inflammatory action"; it is but just to state, that Dr. Sieveking does not employ the terms "cause" and "effect"; nor does he state, in so many words, that the deposit of tubercle is necessarily preceded by inflammation; but I think the enunciation just given, and the whole context, tend to establish a necessary relation of cause and effect. The remarks which suggest themselves under this head apply also to the former; for, in truth, the question turns in a great measure upon the constancy of the fact. The proof given by Dr. Sieveking of the constant co-existence of inflammation and tubercle is the microscopical appearances presented by tubercular lungs, consisting in an obvious enlargement and congestion of the vessels lining the air-cells, and the formation of exudation matter. Passing over the descriptions of the vascular appearances in question, previously recorded by some of the most eminent continental microscopists, and the interpretations put upon them, which are sufficiently familiar to the profession,—in the author's instances of this increased vascularity we are not informed as to the part of the lung upon which his observations were made, whether on a portion taken from the surface, or from the interior. We find, however, that the cases from which the diseased structure was obtained had been cases of active

* Medico-Chirurgical Transactions, vol. xxv, p. 182.

† Medico-Chirurgical Transactions, vol. xxviii, p. 593.

pulmonary disease, by which the death of the patient was wholly or in part produced. Every pathologist knows that the air vesicles of the lungs, in their normal condition, are lined with a dense network of capillary vessels; and that this vascularity is greater in the interior of the lung than at its extreme parts; so that what might present the appearance of morbid enlargement and congestion towards the surface would be deemed normal in the more deeply seated parts. But the great objection to founding so important a conclusion upon this appearance of increased vascularity, even admitting its constant existence, is, that the cases selected are not suitable ones. The investigation ought to be made in cases of tubercle deposited in the lungs where the patient's death has been wholly caused by some accident, or some disease not in the slightest degree implicating the lungs, and where none of the ulterior changes which accompany tubercle have taken place. In cases such as those selected by the author, the existence of increased vascularity cannot assist us in determining the main question at issue, viz., whether the tubercle produces, or is produced by, the inflammatory action.

The occurrence of exudative corpuscles, which is in fact the original point in Dr. Sieveking's observations, and the one upon which, I presume, he places his greatest reliance, tends to prove the converse of that for which the author contends. It is to be especially noted, that these exudative corpuscles are described as forming a ring around, or lining the air vesicles, and in another place, as coating the tubercular matter. "The deposit lay in the sheath of the basement membrane of the vesicle, as a well clipped bullet fills its mould." So that there is a clear demarcation between tubercular matter on the one hand, and exudative matter on the other, and the latter is always on the outside of the former. Is not this a positive proof that the tubercle produces the inflammatory action, in consequence of which exudatory corpuscles are produced, and that the inflammation takes place subsequent to the deposition of tubercle? If tubercular and exudative corpuscles were both the effects of "those local and molecular changes in the vascular system characterised by inflammatory action," we should expect to find the two products uniformly commingled, or at all events, shading off gradually from circumference to centre, as ulterior changes take place in the matter first deposited; but, in Dr. Sieveking's own description of tubercle, we find it to be a substance differing totally from exudative matter; and also that exudative corpuscles are found only rarely and incidentally mixed with tubercle, while the tubercular corpuscle is totally distinct from the exudative corpuscle. Admitting then, the frequent or even universal occurrence of this product of inflammation in connection with tubercle, as described, I am inclined to believe, that the author has furnished the best proof hitherto given of the non-inflammatory origin of tubercle, and of the intercurrent and consecutive nature of the inflammation.

Independently of all that relates to direct observation, let us for a moment admit the truth of the doctrine of congestion, irritation, increased vascular action, inflammation, or a "process allied to inflammation," and taking promiscuously a few of the anomalies that present themselves, look them fairly in the face. Not to advert to the observations of the eminent pathologists, Carswell, Andral, and Cruveilhier, which led them to reject the doctrine in question, but limiting ourselves even to facts contained in the present series of papers, how could it happen in the cases in St. George's hospital, included in the statistics above recited, that the evidences of condensation of the lung should present themselves at the utmost in 28 per cent. only of crude tubercle, and in 49.2 per cent. only of vomicae? It surely cannot be argued, that in a majority of cases the inflammatory action which necessarily precedes, or constantly attends tubercular deposit, at some very early period of the deposit ceases to produce that cumulative effect which becomes obvious and palpable in the state of condensation. How does it happen that pleuritis should be so frequent an occurrence in tuberculous subjects, even more frequent than pneumonia, and again still more frequent in

the earliest stages of the disease, and the deposit of tubercle in the pleura so rare an occurrence, as shewn also in the *Decennium pathologicum*? The serous membranes are by no means insusceptible of tubercular deposit. How again are we to explain the facts contained in the second of this series of papers, from which it appears that no constant relation subsists between the frequency of inflammatory affections of the lungs and of phthisis in large bodies of men, tuberculous and non-tuberculous, in any climate or in any season? If inflammatory action in the structure of the lung necessarily attended the deposit of tubercle, we might reasonably expect in a body of men—a great proportion of whom are hereditarily tuberculous, that where the greater number are attacked with pneumonia, there the greater number would become phthisical. How does it happen that the lungs, the mucous membrane of the alimentary canal, and the membranes of the brain, those parts which are most liable to inflammatory action, are least liable to the deposit of tubercle? These and many other anomalies would have to be explained, before we could rest satisfied, upon microscopical evidence, that tubercle is essentially an inflammatory deposit.

Let I should produce in the slightest degree an erroneous impression as to Dr. Sieveking's views, it is right to mention that in one place he states that the appearance of increased vascularity "almost always" accompanies the deposit; and in another place, he designates the process upon which the deposit depends as one "allied to inflammation"; although the general tenor of those parts of both communications which relate to the subject, is to prove that the deposit is never effected without inflammatory action. These expressions seem to imply that the author's mind wavers as to the truth of his doctrine.

Dr. J. R. Bennett has given a much more rational view than some pathologists seem to entertain of the relation of inflammatory exudation to tubercle, in his chapter on "The Nature of Tubercle" (*Lib. cit. p. 22.*) He regards tubercle as an exudation of the liquor sanguinis, presenting marked differences from inflammatory exudation on the one hand, and cancerous exudation on the other; and he points out very justly, that inflammatory and tubercular exudation more frequently alternate with than accompany each other. I must defer what I have to advance respecting inflammatory action, and inflammatory products in a tubercular state of the blood, but I think all must agree with this author, that if by inflammation be understood pain, heat, redness, and swelling, or the presence of lymph and pus, then, certainly, tubercle is not inflammation; but if we consider inflammation to be an exudation of the blood plasma, then tubercle as well as lymph and cancer are inflammatory products. Dr. Sieveking evidently does not adopt the latter view, since he applies the term to those appearances of ordinary inflammation, which all observers have found so frequently accompanying tubercle, and respecting which the question is, whether the tubercle is the consequence or the cause of the action which produces them; and in describing the exudative corpuscles surrounding tubercle, he evidently means the exudation of ordinary inflammatory action, in contradistinction to the tubercle corpuscle.

As respects the deposit of tubercle in the various tissues, then, the whole of the observations more recently recorded, instead of shaking, tend to establish still more firmly than ever the received doctrine, that it may and frequently does occur without inflammation; that inflammation may and frequently does occur in tuberculous subjects, and even in organs containing tubercle, without causing a deposit of tubercle; that inflammation in an organ and the deposit of tubercle frequently alternate with each other; that the former is much more frequently a consequence than a cause of the latter; and that no necessary relation of cause and effect can be established between them.

Reverting to the morbid appearances in connexion with tubercle in the lungs observed in the mortuary of St. George's Hospital, in addition to the more frequent direct results of pleuritis and pneumonia, the *Decennium em-*

braces the following facts:—*Emphysema of the lungs* was less frequent in tuberculosis than in the aggregate of other diseases; it was found in 15 cases without, and 26 with condensation; or 7.9 per cent. when tubercle existed, and in 13.1 per cent. of diseases other than tuberculosis. *Gangrene of tubercular cavities* occurred in 6 cases, and a gangrenous odour was observed in 2 others. *Hæmorrhagic dots* were less frequent in tuberculous than in non-tuberculous cases, in the respective ratios of 1.5 per cent. and 3.8 per cent. *Pneumothorax* took place 19 times, or in 5.5 per cent. of the cases of vomica; 11 times in the right, and 8 times in the left side: thus reversing the experience of Louis, who found it on the left side in 7 out of 8 cases.

The hæmoptysis of phthisis, in its slighter forms, is, in Dr. Chambers's opinion, a provision of nature to prevent apoplexy of the lungs—a means by which the strangulated blood-vessels may discharge their contents, and postpone the threatened consolidation. So that it is no indication in practice to arrest this hæmorrhage, the quantity of which is regulated by nature, according to the amount required to relieve the morbid state with the least expenditure of the vital fluid. "In chronic phthisis, the slight expectoration of a drop or two of blood appears to be so physiological, that, when it is absent, we may often act wisely in supplying its place by small leechings or cuppings to the exterior of the chest." Dr. Chambers finds this gives relief to the local disturbance, and to the general system; so that the patient improves in every respect.

An ingenious, and, I believe, original explanation, is given by Dr. Chambers of the cause of the infrequency of perforation, and the comparative immunity of the serous membrane, with a large ulcerating surface lying immediately beneath it. The usual position of the ulcerating fistulæ is found to be the middle third of either lung, and rarely the apex or the base; and, since the apex is the ordinary seat of vomica, and the base of abscess, there must be some provision by which the most exposed parts are guarded, which the author believes to be the following:—"In breathing, the base, from the pressure of the diaphragm, and the apex, from being drawn, as it were, up into a corner, have less motion than the middle of the lungs, and, consequently, when pleurisy occurs, they are most liable to become adherent to the thoracic walls. The adhesions formed not only prevent the perforations there being detected, but they also prevent any harm arising from them.

In conclusion, it cannot be said that, in this hospital, the *post mortem* records, in connexion with the present subject, are very satisfactory. As respects pleuritic adhesions, independently of the doubt expressed by Dr. Chambers of the accuracy of the numbers as recorded, the registrars do not appear to have regarded a point upon which Louis laid great stress, viz., that, in the cases examined by him, the extent of the adhesions was always proportionate to the extent of tubercular disease in the subjacent lung. It was certainly important to ascertain how far this observation is borne out on further investigation. In the instances of condensation of the lung, no account is given of its characters—whether, for instance, the red or the grey hepatisation of pathologists is intended; nor are any microscopical appearances recorded. We have no means of determining how far this condition is to be regarded as hepatisation by a tuberculous product; and, although the condensations are described as partial, we have the least possible information as to their seat and extent. No distinction appears to be made between grey granulation and crude yellow tubercle, grey infiltration and yellow infiltration. In the actual state of science, these are important omissions, which ought not to occur in *post mortem* records aiming at accuracy and utility. That the state of the blood in the vascular system generally, and in the vessels of diseased parts, including its microscopical characters, should be carefully noted, presents itself also as an obvious desideratum in future *post mortem* records.

Norfolk Crescent, Hyde Park, December 1854.

SPONTANEOUS AMPUTATION IN UTERO OF THE RIGHT FOREARM.

By GEORGE GREENWOOD, Esq.

THE monographs by Dr. Montgomery of Dublin, and Dr. Simpson of Edinburgh, on Spontaneous Amputation of the Limbs of the Fœtus, contain a collection of cases more or less similar to that which I am now about to record. These valuable papers appeared in the first, second, and tenth volumes of the *Dublin Journal of Medicine*. In the *Medical Times* of December 1853, Mr. MacLaughlin reports a case of a child born without arms, which evidently belongs to the same class. The nature of the disjunctive agency in such cases is well explained by the writers to whom I have referred.

CASE. On the 13th of last month, I was called upon to attend A. P., aged 23, in her first confinement. Labour was natural. The child, a female, was born without the right forearm; the stump having the appearance of a very neat amputation. The humerus can be distinctly felt at its extremity, diverging into two equal and well rounded condyles. Wishing to ascertain if any, or what influences, maternal solicitude or mental impression, could be traced in connexion with such an effect, I was informed that, in the earlier months of utero gestation, the mother had received a severe shock by the sudden intelligence of her husband having had his arm nearly cut off by machinery, at the mill where he is accustomed to work. The report, however, was exaggerated, as he had merely sustained a slight injury to one of the fingers. The grandfather of my patient, residing in the same house, lost the use of his right hand, from an injury to the wrist, terminating in exfoliation of some of the carpal bones, and permanent immobility of the fingers.

Having stated the facts of this case, and some collateral circumstances in which an interest may be felt, I leave my readers to draw their own conclusions regarding a curious subject in intra-uterine pathology.

Ossett, near Wakefield, January 2nd, 1854.

BIBLIOGRAPHICAL NOTICES.

CLINICAL LECTURES ON PULMONARY CONSUMPTION. By THEOPHILUS THOMPSON, M.D., F.R.S., etc. pp. 205. London: 1854.

THESE Lectures were originally delivered at the Brompton Hospital for Consumption, and published in a cotemporary journal. They are now collected into a volume, and contain such modifications as the author's further reflections have suggested. The lectures are thirteen in number, in which the wide subject of consumption is treated cursorily, the particular points in each lecture having been for the most part determined by the facts that presented themselves in the wards of the hospital. The author's views throughout are illustrated by cases, for the most part treated under his own eye, and there are two well executed plates, in one of which the peculiar condition of the gums indicative of the consumption diathesis is represented. An index is very properly appended, containing a reference to the more prominent topics of discussion.

The introduction contains a simplified nomenclature of the best marked auscultatory signs, with a definition of each, a description of the morbid condition it is intended to indicate, and the synonymes or corresponding terms in general use. Dr. THOMPSON objects greatly to the term "subcrepitant" applied to the bubbling produced in the capillary bronchi; he considers that no medical expression has tended to produce more danger in practice by leading to injurious depletion. The term "smaller bubbling rhonchus" is substituted; and instead of designating the stethoscopic sign of pneumonia a "crepitant rhonchus", he calls it simply "crepitation".

The lectures do not profess to comprise the whole sub-