same joint of the right middle finger. These enlargements are shown in Fig. 3, from a photograph taken by Mr. R. C. Ruddock,

Fig. 3.

of Newcastle. In the palm of each hand there is a band of Dupuytren's contraction, which is connected with the ring finger on the right and with the middle finger on the left; thus the contraction has developed in connection with the fingers in which the enlargement of the terminal joints has taken place. There is some enlargement of the feet, and larger boots are now worn in consequence. The metatarsophalangeal joint of the left great toe is enlarged. The phalanges of this toe are enlarged, especially in a vertical direction. The phalanges of the other toes appear to be somewhat enlarged also. On the right there is a similar enlargement of the toes, but it is not so marked as on the left. In other respects the feet do not look larger than usual.

There is an area of dullness on percussion over the apex of the right lung in front. There are, however, no signs of active disease, so that this is probably the site of the tuberculous disease detected twelve years ago, which became arrested after a sea voyage to the Cape.

The chief features in this case are the peculiar enlargement of certain terminal phalanges and joints in association with Dupuytren's palmar contractions and old pulmonary disease. The case is a peculiar one, and differs in many ways from both acromegaly and hypertrophic pulmonary osteo-arthritis as described by Marie.⁴ Mr. Jonathan Hutchinson, who has been kind enough to examine the patient, has expressed the opinion⁵ that it is a case of pulmonary osteo-arthritis, complicated by a tendency to gout, due to his occupation as a painter, and evidenced by the development of Dupuytren's contractions in the palms.

THE LETTSOMIAN LECTURES

ON THE

COMBINATIONS OF MORBID CONDITIONS OF THE CHEST.

Delivered before the Medical Society of London.

By FREDERICK T. ROBERTS, M.D.,

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LECTURE II.

VI.—COMBINATIONS IN ACUTE CASES.

a. Acute Conditions Supervening on Chronic.—Dr. Roberts said that there was a natural disposition to accept an acute condition as the whole of a case, whereas the acute changes might merely have supervened on chronic changes. In this connection he referred (1) to the presence of certain conditions of the chest walls already enumerated in the first lecture which impeded respiration; to (2) pleuritic adhesions; to (3) the occurrence of acute diseases as complications of chronic diseases, as for instance (*a*) acute bronchitis,

disseminated broncho-pneumonia, dry pleurisy or pleurisy with effusion in the course of phthisis; (*b*) acute bronchitis in chronic emphysema; and to (4) the occurrence of acute pulmonary congestion with oedema, of hydrothorax, of embolism, and of acute endocarditis as complications of chronic valvular disease.

With regard to (2) he spoke as follows:

PLEURITIC ADHESIONS IN ACUTE DISEASES.

The importance of pleuritic adhesions in relation to acute diseases of the chest is so manifest that I make no apology for discussing this point in some little detail. In the first place, it is interesting to note that when a local adhesion exists, the history of which is quite unknown, the corresponding limitation or undue prominence of signs of a bronchial catarrh may reveal its presence and site, and I have known this happen again and again in the same case. I have a strong impression that an apical adhesion may in this way prove a real source of danger, by predisposing to repeated irritation of the upper part of the lung, and thus laying the foundation for tuberculous infection.

A far more important condition to be noted in its association with acute affections of the chest is the existence of a unilateral basic adhesion, extending more or less upwards, the signs of which may or may not have been previously evident. There is generally a history of some acute illness, be it only known by the expression "congestion of the lungs," and of course the practitioner may be aware of all the facts of the case. This condition always acts as a predisposing cause for the special implication of the lower part of the affected lung, which is embarrassed by the adhesion, and even when the patient has merely a slight cold, but still more if he has a definite bronchitic attack, the signs usually become so marked and out of proportion over the corresponding base, that anyone who is not aware of the combination is very likely to attach far greater importance to them than they deserve, and to diagnose a serious congestion of the lung (which in a certain sense may be correct), or an actual pneumonia which does not exist. Therefore whenever moist râles, in more or less acute cases, are heard only or in marked excess over one base, other signs of pneumonia being absent, the possibility or even probability of an adherent pleura being the explanation should always be borne in mind.

There is one class of case to which I particularly wish to refer in connection with basic pleuritic adhesion. The tendency of this condition is not only to embarrass the lung, and probably to damage its structure to some degree, but also to retain secretions or any morbid products which may be formed in the bronchial tubes or air vesicles. I frequently meet with cases in which râles due to such accumulation are constantly present at one base, varying in their amount from time to time. Indeed, sometimes in association with a general agglutination they are heard extensively over one side, and I have ventured to give to these adventitious signs the term "adhesion râles." Now it occasionally happens in course of time that without any obvious increase in the physical signs, indicating either pneumonic consolidation or pulmonary destruction or suppuration, more or less acute general symptoms set in, much like those of phthisis, which increase in severity, until sooner or later the patient succumbs. Local symptoms may develop or increase, but not in proportion, and there is often only a small amount of muco-purulent expectoration. Sometimes signs indicating secondary progressive implication of the lung tissues in an upward direction supervene, but they do not point to anything like a cavity. No doubt many of these cases become actually tuberculous, and they would be classed as "basic phthisis," but certainly not all; at any rate, I have met with some in which experienced bacteriologists could not detect any tubercle bacilli in the sputum. I have a strong opinion, however, that the grave results in all these cases are really due to micro-organisms, probably of different kinds, which gain access with the inspired air into the base of the lung, where they find a suitable nidus in the retained secretions and morbid products, in which they grow and flourish and multiply, producing toxins which are absorbed, and by degrees poison the patient. Whatever may be the explanation, the practical lesson is that a basic adhesion accompanied with the persistent presence of râles is a condi-

⁴ Loc. cit., p. 71.

⁵ Clinical Journal, June 27th, 1894, p. 143.

tion never to be overlooked or underrated, and one that decidedly predisposes to acute changes of a grave nature. There is still another point worthy of notice relating to a pleural adhesion involving the lower part of one side—namely, that, should another definite attack of acute pleurisy with effusion, or of pneumonia, supervene, then the state of things within the chest, as well as the progress of events, may be very curious indeed. It sometimes becomes under the circumstances decidedly difficult to interpret accurately the meaning of the physical signs, which are quite unintelligible apart from the recognition of the previous pleuritic conditions; and the difficulty is all the greater if, as I have known happen, a pericardial effusion is added to the troubles.

I now wish to say a few words with regard to acute conditions occurring in cases where one lung is universally adherent. Should a well-marked attack of bronchitis develop under such circumstances, the signs on the two sides are likely to be quite different, and the embarrassed lung will probably suffer much more seriously than the opposite one. In these cases, also, definite pleurisy with effusion, or a pneumonia, may develop on the healthy side, and this is obviously a very awkward and dangerous combination, though not necessarily fatal.

The relation of a generally adherent lung to acute tuberculous changes is extremely interesting and important. Unquestionably an acute phthisis, with rapid destructive changes, may develop in connection with a lung which has been known to be generally adherent for a long period, but which, until that time, had given no apparent trouble; or it may start on the healthy side. In some of these cases, however, careful inquiry will show that there have been slight symptoms, of longer or shorter duration, indicating that the lung has been affected, and upon this condition the acute changes supervene, which may run a very rapid course. Another tuberculous process, which may possibly complicate the general chronic pleuritic condition, is what may be described as an outburst of miliary tuberculosis in the corresponding lung, while the opposite one is practically free. I have known such an event occur, accompanied with very peculiar symptoms and indefinite physical signs, matters being only satisfactorily cleared up at the *post-mortem* examination.

ASSOCIATED CONDITIONS OF AIR TUBES AND LUNGS.

The term "congestion of the lungs" was, Dr. Roberts continued, often used in the most vague way possible, but it should be recognised that congestion did in reality play an important part as a complicating condition in acute croupous pneumonia, especially when both lungs were involved; in "broncho-pneumonia," in "capillary bronchitis," and in acute miliary tubercle. Pulmonary paralysis was a condition of lung which he believed really existed, and was an important factor in determining a fatal issue in certain cases.

SECONDARY EFFECTS OF AN ACUTE DISEASE.

Under this head he referred briefly to the occurrence of acute inflammatory effusions into the pleura or pericardium, or both; of dropsical effusions into these cavities; and to the embarrassment of the right heart produced in a case of pronounced emphysema by an attack of bronchitis, or in a healthy person by an attack of capillary bronchitis or broncho-pneumonia. The same observation applied to acute croupous pneumonia, with this additional circumstance, that the myocardium might undergo acute degenerative changes. Conversely secondary lesions in the lungs might follow certain acute conditions of the right heart—for example, malignant endocarditis, or pulmonary thrombosis.

COMBINATIONS OF ACUTE INFLAMMATORY CONDITIONS.

Under this heading subjects arose for consideration of the first practical importance.

(a) *Tracheo-bronchitis*.—Inflammation of the trachea was often a prominent element in acute bronchitis, and responsible for its earliest symptoms.

(b) *Pleuro-pneumonia*.—A certain amount of pleuritic exudation was an almost essential concomitant of pneumonia reaching the surface, but there was in addition a class of cases in which pleuritic effusion and pneumonic consolidation developed simultaneously or succeeded each other.

(c) *Broncho-pneumonia* might be regarded as a combination of acute inflammatory affections of the respiratory organs.

(d) *Bronchitis with Lobar Pneumonia*.—Not only was some degree of bronchitis often associated with lobar pneumonia, but extensive bronchitis with abundant purulent expectoration might be associated with definite lobar pneumonia, which was then very liable to be overlooked.

(e) *Diphtheritic membrane*, itself a form of inflammation extending down the air passages, might give rise to other inflammatory conditions, as well as to secondary pulmonary changes.

(f) *Pericardial and cardiac inflammations* were liable to complicate each other, a subject which had been well discussed in the Lumleian Lectures by Dr. Sturges, whose untimely death was so deeply deplored.

(g) *Complicated Cases*.—As examples of cases presenting an extreme degree of complication, Dr. Roberts instanced cases in which there was more or less pleuro-pneumonia on both sides; in which pericarditis supervened on a pneumonia or pleuro-pneumonia; or in which there was a complication of pleurisy and pneumonia, perhaps double, with pericarditis, endocarditis, myocarditis, and a mediastinitis thrown in. The class of cases last mentioned, he continued, "may be associated with acute rheumatism when, though very grave, they are not necessarily fatal; with influenza; or with some obvious internal septic or pyæmic condition. Rarely, however, it is impossible to trace them to any definite or tangible cause, and then they can only be attributed to some special morbid agent introduced from without in various ways. The inflammatory lesions sometimes progress with remarkable rapidity, not only in individual organs, but from one structure to another. The products may become very abundant, and show a marked tendency to changes of a low type. Occasionally these cases present remarkable changes within a very short period, fresh outbursts apparently taking place after the inflammation has begun to subside.

"The direct causative relation of micro-organisms to all acute intrathoracic inflammatory diseases is at the present time a favourite doctrine. Whatever one may think of this doctrine from a general point of view, it is impossible to ignore the influence of these organisms in the cases now under consideration, for there does not seem to be any other explanation of their history, while the extension of the inflammatory process by their agency can be easily understood. I need not on the present occasion discuss the nature of these microbes, but I may mention the well-known fact that pneumococci have been found in pleural and pericardial effusions associated with pneumonia."

TUBERCULO-INFLAMMATORY CONDITIONS.

Dr. Roberts next referred to cases in which a tuberculous condition, perhaps not previously recognised, became complicated with lobar or more limited pneumonia, with disseminated lobular pneumonia, or with signs pointing to pleuro-pneumonia. Such patients might be able to go about, though with a temperature of 103° or more; these conditions, which sometimes followed a profuse hæmoptysis, were very liable to be misinterpreted. Recovery from the complicating acute condition might take place, but the phthisical changes remained. On the other hand, such cases were more likely to terminate in acute phthisis.

MISCELLANEOUS CONDITIONS.

Under this heading Dr. Roberts mentioned the more or less grave disorders of the respiratory and circulatory functions produced by such causes as poisonous inhalations, toxic causes, the typhoid state, extreme cold, partial suffocation, and certain nervous derangements.

VII.—ACCIDENTAL LESIONS OR COMPLICATIONS.

In this class were brought together cases in which suddenly or very acutely some definite lesion occurred within the chest, as the direct result of some morbid state previously existing, but perhaps quite latent. Among such lesions which produced sudden death he enumerated rupture of the heart, bursting of an aneurysm, effusion of blood or pus into the pericardium, blocking of the pulmonary artery. The important sudden lesions not immediately fatal which were

to be borne in mind were pneumothorax; the bursting of an abscess or collection of pus, especially of an empyema into the lung, or of a pulmonary abscess into the pleura, or a mediastinal abscess in different directions; some lesion leading to mediastinal and subcutaneous emphysema; rapid and extensive cardiac or pulmonary thrombosis; rupture of a cardiac valve or septum; certain forms of hæmorrhage with grave hæmoptysis; changes affecting an aneurysm, especially its rapid enlargement or extension in certain directions, or its communication with the superior vena cava; and rupture of an œsophageal pouch, which, however, was an extremely rare event.

VIII.—SUDDEN OR ACUTE DISORDERS OF FUNCTION.

The conditions referred to under this heading were: (a) Respiratory disturbances, especially bronchial asthma, cardiac dyspnoea, laryngeal disorders due to interference with intrathoracic nerves, and functional disorders of the diaphragm; (b) cardio-vascular (palpitation, weakness of cardiac action, angina pectoris); (c) dysphagia due to functional disorder of the œsophagus; (d) "neurotic exaggeration." With reference to asthma, Dr. Roberts observed that, though it was recognised that the subjects of this disease were usually of the emphysematous and bronchitic type, it should be remembered also that rigidity of the chest walls, adhesions of the upper part of the lung, and other complications might predispose to, and increase the difficulties of the patient during the attacks.

IX.—MORBID CONDITIONS ORIGINATING FROM THE ABDOMEN.

Extreme tympanites, ascites, very large abdominal tumours, and pregnancy afforded familiar illustrations of the way in which accumulations of various kinds within the abdominal cavity might interfere with the functions of the diaphragm and the thoracic contents. Further, an enlarged spleen or liver or a renal tumour might have the same effect; as also that rare occurrence, hernia of the stomach, or other abdominal structure through the diaphragm.

CLINICAL LESSONS: INVESTIGATION OF CHEST CASES.

Turning, then, to the application of the facts and opinions expressed up to this point, Dr. Roberts proceeded to discuss certain points relating to the clinical investigation of chest cases. He said:

1. My first proposition, which needs to be emphatically urged in these days of hurry and bustle, is that every thoracic case is worthy of at least a fair amount of study and consideration, and that it is our duty to try to determine as fully and as accurately as possible what are the actual conditions which in various combinations we have to take into account. Certainly, considering the vital importance of the structures with which we are concerned, no case ought to be dealt with in the casual and "free-and-easy" sort of style which is but too common.

A chest case would, I suppose, be ordinarily understood to signify one in which symptoms of some kind and degree attract notice to this region. If these should happen to be of a pronounced character—be they sudden, acute, or chronic—no doubt they would receive, as a rule, adequate consideration; and it may be observed in passing how often serious combined morbid changes are thus brought to light by some accidental event, or, it may be, by what looks like a mere passing functional disorder. Should they, however, be slight or indefinite, then comes the special danger of superficialness or actual neglect of investigation. Over and over again have I found some apparently trivial symptoms to be the earliest revelation of various associated changes, not uncommonly of a pronounced and serious nature, of which it may be of the highest importance to the patient to be fully aware, if only from a preventive point of view.

2. The next point which I wish to enforce is that every chest case should be approached with an open, I may say a "comprehensive," mind, and an unbiassed judgment, both as regards structures and diseases. At any rate, it is most dangerous to have a too definite or preconceived idea as to this or that organ being affected, the supposed nature of the complaint as expressed in a name, and the conditions which we expect to find.

Of course we cannot help having often a general impression as to the kind of case which comes before us, and indeed its very aspect, or the most cursory examination, may tell us its nature positively up to a certain point. Not uncommonly, however, this is not so, for either the case does not present any distinctive features whatever on superficial observation, or we find to our astonishment that it is absolutely different from what we anticipated. We must always be prepared, moreover, to meet with combinations of morbid conditions, affecting several structures it may be, for which we were entirely unprepared, even in cases which are apparently clear and simple, and sometimes we are confronted with such a complex or curious state of things that only a clinical observer fully acquainted with the particulars I have indicated, is likely to understand it in the least. In dealing with sudden or acute cases we have to be specially on our guard against a too narrow conception of their nature and combinations, otherwise we shall be ever in danger of making most grave and irreparable blunders; but even in chronic and ordinary cases the same principle must guide us as a general rule, if we wish to avoid serious errors in diagnosis.

3. I now proceed to look at the clinical investigation of chest cases from the more positive point of view in its bearings upon my subject. I suppose we are all agreed that we ought to avail ourselves of every means which we can employ in such investigation, and to study intelligently all the clinical signs which are thus presented for our interpretation in any individual instance. At the same time, the different methods and signs should be regarded in their due proportion, both in relation to the facility of carrying out the former and the means which we have immediately at our command for doing so, and the actual or relative value of the phenomena upon which our diagnosis has to be founded. We must be especially careful in these days of progressive and aggressive science not to neglect the old methods which have served us in such good stead in the past, and without which we absolutely cannot get on, or to allow them to be entirely supplanted by others of recent introduction, which after all can only afford a limited kind of information, and some of which are by no means always reliable or easy of application.

Taking a comprehensive view of the immediate investigation of a patient supposed to be suffering from some chest affection, the process may be summed up as including:

1. Systematic physical examination of the thorax and its contents, by the more simple methods commonly recognised under this expression.

2. Intelligent inquiry as to the presence or absence of symptoms, subjective and objective, local, general, and remote, so far as they are directly associated with, and the result of, thoracic conditions, and the methodical study of any such phenomena which happen to be present.

3. The employment in appropriate cases of special methods, and amongst these would come the use of the different instruments and other apparatus which are available for clinical purposes in relation to the thoracic structures.

I desire to offer a few practical remarks with regard to each of these divisions in their relation to the investigation of combined morbid conditions associated with the chest.

1. *Physical Examination.*—I have placed physical examination first for the following reasons: It is, in the first place, obviously the only means by which we can gain any reliable information whatever as to the presence and nature of the combinations of morbid changes affecting the chest and its contents, of which I have been speaking; and, therefore, it constitutes the most advantageous starting point of our clinical investigation in a large number of instances. It is by the simpler methods commonly included under the expression "physical examination" that we recognise distinctly and positively the physical changes, or even sometimes the functional disorders, upon which symptoms depend. Without proper physical examination it is impossible, in a large proportion of instances, even to get an approximate idea as to the state of things in connection with this region; and obviously it is only in this way that we can acquire anything approaching definite and precise information about the various combinations of conditions which present themselves in numerous individual cases.

Secondly, it is very important to remember that combinations of thoracic morbid conditions are not uncommonly

detected by physical examination which are not revealed by any symptoms whatever, or, at any rate, none of sufficient moment to attract attention. Therefore it is a safe rule thus to investigate the chest more or less in every case which comes under our professional observation. I believe it would be a very good plan, especially under particular circumstances, if individuals would present themselves for examination from time to time, just to see what is the condition of their important organs. Now and then, but only exceptionally, one does come across a wise person who thinks it worth his while and money to be thus overhauled, and, on the whole, these are about the most satisfactory cases to be met with in practice. The only opportunity, however, one usually gets of investigating from this aspect is in relation to life insurance, when we do sometimes discover very remarkable and unexpected morbid changes; and when an individual is about to take some important step in life, to which I need not more definitely refer.

Thirdly, physical examination often reveals readily and positively pronounced organic conditions in various combinations, which at once explain all the clinical phenomena observed, making the case perfectly clear and simple; and amongst these conditions it may detect one which demands immediate treatment. Moreover, we may thus discover some particular disease, or speedily get a general idea of the kind of case we have to deal with, and then, if we possess adequate knowledge, we understand what conditions we have further to look for under the particular circumstances. Again, physical examination may bring to our notice a certain change which we feel sure cannot be an independent one, such as a want of free entrance of air into, or actual collapse of a lung, or a striking displacement of the heart, and may thus indicate the direction which our investigation should take, in order to find out the cause or causes of such change, whereby we may be led to the discovery of most important diseases.

There is one point that I wish specially to notice in this connection. It is often stated that certain conditions within the chest cannot be detected by physical examination with any certainty, or, at any rate, only exceptionally. I more especially allude to pleuritic and pericardial adhesions. Such a statement I strenuously dispute, and I maintain that these changes, as well as others more or less obscure, may frequently be demonstrated as parts of a case, if they are duly borne in mind and properly looked for, and if their signs are intelligently appreciated.

In the next place I desire to say a few words as to the general principles upon which physical examination of the chest should be conducted in order to be of any real service in demonstrating the presence and nature of the various combined conditions. Concisely stated, it must be always systematic; and as thorough and comprehensive in all respects as the circumstances of the case permit, with due regard to the state of the patient. An unmethodical examination, or one limited to the upper part of the chest, and perhaps the cardiac region, is by no means adequate in any case, and such a mode of procedure habitually adopted is certain to lead to many disastrous results.

There is one tendency against which it is necessary to warn in this connection, and that is the practice of always looking for some special condition, such as lung consolidation, a pleural effusion, or disease of a cardiac orifice or valve, and, should either of these be found, fixing upon it and ignoring everything else. Of course it is essential to be thoroughly familiar with the signs of such simple conditions, and to be able to recognise them positively; but we must never forget that in a large number of cases they are mixed up in every conceivable way. And here it is important to notice that the signs of particular physical conditions are often greatly influenced by their association with others, which indeed may obscure them altogether, or they intensify these signs, or modify them in various ways. For example, the effects of pronounced pulmonary emphysema in obscuring other serious diseases, which has been already alluded to, must always be borne in mind, and the same remark applies to not a few cases of bronchitis. Marked pleuritic conditions may also render it almost impossible to determine definitely what changes involve the corresponding lung. Of course in every case the heart and great vessels ought to be separately and systematically examined. More-

over, should any exceptional disease be suspected or discovered, such as an aneurysm or solid tumour, it is well to have a definite and special plan of examination, which can be methodically carried out in such cases.

While it should be the rule in relation to physical examination of the chest to aim at finding out all the conditions present in a particular case; on the other hand, much discretion is required not uncommonly in carrying it out, as in cases of an acute and complicated nature, where sudden grave lesions or disorders supervene on chronic diseases, or in advanced phthisical or cardiac cases. Under such circumstances our investigation should be as brief and as little disturbing to the patient as possible, even though we are not able to make out to our satisfaction the exact state of things, and in some instances we had far better omit physical examination altogether in the meanwhile. It is remarkable, however, what we may find out even then without disturbing the patient to any appreciable degree, if we go about the examination in the right way, and make good use of our eyes and hands.

The more simple methods of examination just alluded to, namely, inspection and palpation, are also often of the greatest service in the detection of certain associated physical conditions of the chest, especially when employed together, and for definite purposes, and I do not think that they are at all utilised to the extent that they might be.

There is one other point that is worth noting, namely, the essential value of certain special signs in the detection of a particular and unusual condition which happens to form part of a more or less complex case. Thus, the "bell sound," or the "succussion splash" may be the only evidence under such circumstances of the pleural conditions with which these signs are severally associated.

A READY MEANS OF PROCURING AND TRANSMITTING DIPHTHERIC DISCHARGES FOR EXAMINATION.

By D. J. HAMILTON, M.B.,
Professor of Pathology University of Aberdeen.

CONSIDERABLE difficulty is often experienced in removing diphtheric discharge, false membrane, or slough from the tonsil or fauces and in transmitting these expeditiously in a pure state to the laboratory where they are to be examined. What I find usually happens is that the discharge is put into the first bottle which comes to hand and hence is much contaminated before it reaches the laboratory. The discharge which is most likely to contain the bacillus, namely, that overlying a slough or false membrane, moreover, cannot always be scraped off owing to the medical attendant being unprovided with a proper instrument for the purpose. Delay is also caused owing to the bottle having to be packed up, etc.

With the object of overcoming these difficulties I have adopted the following method of collecting and transmitting the discharges—a method which promises not only to be satisfactory, but which at the same time is so simple of application that any practitioner, however preoccupied, can readily make use of it:

An ordinary three-quarter inch wide test tube is fitted with a tight plug of cotton; into this plug of cotton is inserted the end of the cedar wood handle of a small goat's-hair brush. The handle should not come quite through the plug, but be securely tied to the superfluous cotton at the mouth of the tube. The brush should be so long that it reaches close to but is not in actual contact with the deepest part of the tube. If it is desired to prevent evaporation, the end of the tube should be covered with a loose caoutchouc cap. This, however, is usually unnecessary, as the time occupied between the removal of the discharge and its transmission is never likely to exceed twenty-four hours. The tube with the enclosed brush is now sterilised in the hot-air chamber, and a printed label with spaces for the name of the patient, date of removal, duration of disease, name and address of practitioner attached. The tube is made to fit into a small padded box to which an address label is attached. All that the