elbow. On her second visit, I fully flexed and pronated the forearm; the usual click was heard, and after that the pain and resistance on movement disappeared.

This accident may occur to any young child, and is probably, like fracture of the clavicle, one of the commonest lesions of the upper extremity in early life. Its true nature had almost been detected by Mr. C. Heath, Mr. Southam, and Professor Hamilton, but (so far as I can ascertain) not fully described until the publication of my paper.

REMARKS ON A CASE OF MANIA WITH PHTHISIS: PULMONARY FISTULA: DEATH: NECROPSY.

Read before the Dorset and West Hants Branch.

By P. W. MACDONALD, M.B. and C.M. Aberd.,
Senior Assistant Medical Officer to the Dorset County Asylum.

In bringing this case before the meeting, I have been less influenced by the wish to say anything that is new than to place on record a very rare and complicated case.

L. S. was first admitted into the Dorset County Asylum in May, 1872. He was a plasterer by trade, single, and at the time of his death aged 35. His father and mother are living, and in the enjoyment of good health. He had six brothers, two of whom died in infancy, and one at the age of 18, from heart-disease; and five sisters, one of whom died at 20, from heart-disease. Those now living—namely, three brothers and four sisters—are strong and healthy.

On his admission in 1872, he was suffering from mental depression, with delusions. In conversation he was irrational, and in temperament irascible. He slowly improved, and was discharged recovered in December, 1873.

After a lapse of five years, he was admitted for the second time in October, 1878. The mental symptoms had returned in an aggravated form, and his bodily health was much impaired. For many months there was no improvement. In July, 1879, he was reported to be morose and self-absorbed, but, on the whole, more rational and intelligent. At times, he was liable to sudden outbreaks of maniacal excitement, when he was dangerous to himself and others.

On February 21st, 1881, he had a severe attack of hæmoptysis, bringing up nearly a pint and a half of blood and phlegm. On a physical examination of the chest, there was found advanced consolidation of the left lung, with a vomica at the apex. *Râles*, coarse crepitation, and pectoriloquy were heard. During the next week, he had several slight attacks of hæmoptysis; but, on March 18th, it was reported that there had been no return of the hæmoptysis for more than two weeks; and, though very weak, he was mentally more rational, and gaining in strength.

He was treated with cod-liver oil and the time-honoured expectorant mixtures. He slowly gained in strength; and, as he improved physically, his mind seemed to gain in tone and power. About this time, his family made a strong request to have him home, fearing he might sink from phthisis; and on May 17th he was discharged to their care, as mentally relieved.

His relations nursed him for over eleven months, when, as there was no improvement in his general health, and he had become maniacal and unmanageable, he was readmitted (April, 1882). On admission, it was found that his mind had deteriorated, and that he had lost much in strength. Mentally, he was irrational, apathetic, and delusional; and he was suffering from a severe cough, with profuse expectoration. The same treatment was adopted as when he was previously in the asylum; and at the end of six months there was such a decided improvement that, during the summer and autumn, he was employed on the farm.

During the year 1883, there was absolutely no change.

In April, 1884, the lung-disease showed signs of activity. The cough returned, and there was much expectoration. His lungs were, from time to time, examined; and I think I am right in saying that, at one time or other, every known sign and symptom of phthisis—not to mention the various indescribable symptoms, auscultatory and otherwise—were met with, and noted. He was feverish, thin, and pale; and the mental symptoms were aggravated. This might be termed the beginning of the end; for he did not again rally, mentally or physically.

In October, 1884, a very rare complication happened. On the 10th of that month, a small abscess was observed to be forming in the fifth costal interspace, on the left side, just beyond the cartilages of the ribs. The abscess increased in size, and on the 21st it spontaneously opened, when over a pint and a half of very offensive grumous-looking liquid ran out. There was free and direct communication with the

lung; for, when the patient coughed, air escaped by the newly formed pulmonary fistula. After this occurrence, he seemed much relieved. The cough was less troublesome, and there was not again any expectoration.

On the 22nd, his pulse was 74, weak and irregular; temperature (evening) 99.6°. His appetite was good, and his bowels regular. The wound was dressed antiseptically.

The cough returned at times, but no expectoration. Temperature varied, but at no time rose over 101°. The fistula continued to discharge daily large quantities of purulent material, which varied in colour and consistence. The offensiveness increased, and the colour changed from a dirty brown to a greenish brown, and towards the end was of a gangrenous nature.

On January 6th, there was much swelling and œdema of the lower extremities, penis, and scrotum. Like all costal abscesses, the discharge burrowed between the ribs and the skin, and caused two small openings at the lower edge of the sixth rib. His appetite was good at the last, and there was no intestinal derangement. He died on January 12th.

Necropsy, thirty-six hours after death.—The dura mater was normal. There were opacity and thickening of the pia arachnoid. The occipital lobes were small. The convolutions were regular, and well formed. The grey cortex was reddened, and showed punctiform injection. The white central medulla was soft. The basal ganglia were normal. The heart was normal; its valves were closed. The right lung was free from adhesions. In the anterior edge of the upper lobe, there were several small caseous nodules, otherwise the lung was healthy. On proceeding to remove the left lung, there was none to be found. The cavity, thus formed, was three-fourths full of grumous-looking material. By means of a cup and sponge, the liquefied lung was removed, and it seemed to consist of degenerating lung-tissue, caseous masses of various sizes, pus, fat-cells, etc.

After removing the purulent collection, not by any means an agreeable proceeding, nowhere could any of the lung be found, with the exception of a small collapsed piece behind the root of the lung, or, I should say, what remained of the root of the lung. The pleural space was obliterated, and the adhering pleural layers could not be removed from the chest-wall except in pieces. The vessels and bronchi forming the root of the lung were all plugged, the former by well formed fibrinated clots, which adhered to the epithelioid lining of the vessels, and the latter by clots of a fibrous nature. The bronchi were quite impervious to air.

In the fifth interspace, at a spot three and a half inches from the centre of the sternum, was a small opening that would admit an ordinary sized quill. This was the internal opening of the fistulous communication with the lung. The external opening was at the upper edge of the sixth rib, the course of the fistula being downward and backward. Close to the internal opening, the free surface of the thickened pleural layer was dark and granular. The skin around the external opening was hyperæmic, and had given way in one or two places, exposing the sixth rib, which was denuded of periosteum. The liver was large; its edges were rounded; the organ generally was soft, pale, and fatty. The kidneys were large, and in both the cortex was paler than natural. There were fibroid changes in the spleen. The intestines were normal; there was no ulceration. The pelvic organs were normal.

REMARKS.—I have endeavoured to curtail the clinical notes as much as possible, thinking that more might be gained from a general review of the symptoms and state of parts.

Though this patient had suffered from mental aberration for many years before symptoms of pulmonary disease were known to be present, I am, nevertheless, inclined to class it as a case of mania associated with phthisis. The history of the case bears out this view.

From the first, he was irritable, excitable, and suspicious; and, as the case advanced, symptoms of dementia predominated. In this case, as in most others where mental derangement co-exists with lung-mischief, the insanity commenced insidiously. His relations say that the insanity was caused by a severe beating about the head; but after death I failed to find a single sign, macroscopically or microscopically, to favour this view; and I do not think that there was any connection, as to cause and effect, between the beating and the insanity.

Dr. Clouston says that phthisis is entirely latent in between one-third to one-fourth of all the cases among the insane; and, in almost all the others, it is latent for a considerable time.

On inquiry, we ascertained that the cause of death, in the case of the brother and sister who died, was phthisis, and not heart-disease. We also learned that there was a maternal history of lung-disease.

Having, then, obtained reliable evidence of a strong hereditary predisposition to pulmonary disease, and bearing in mind the latency of

phthisis among the insane, also the insidious nature of the mental symptoms, there need not be much hesitation in classing this case as one of Phthisical Mania.

Taken as a whole, the case is of more interest and practical importance to the surgeon than to either the alienist or the physician. But, before drawing your attention to the most important point of the case, I wish to allude to the pathological conditions met with at the root of the lung. I have said that, after the formation of the pulmonary fistula, the cough returned at intervals, but that there was not again any expectoration. Like many more diagnostic doubts, this sudden cessation of all expectoration remained to be explained on the *post mortem* table.

After ascertaining that the bronchi were rendered impervious, there was no difficulty in accounting for the absence of expectoration; but why this should have taken place after, and not before, the spontaneous opening of the abscess, I hesitate to express an opinion. It may have been a mere coincidence, and the slowly forming clots may have been only completed at or about the time when the abscess opened.

The sealing of the pulmonary vessels was even more remarkable. In attempting to force a stream of water through the pulmonary artery after death, I could not do so without injury to the vessel, so perfect was the plugging. The pulmonary veins and bronchial arteries were also hermetically closed, and the vessels must have been in this condition for some time. It seems hard to believe that there was no hæmorrhage during the liquefaction of the lung; but, beyond the hæmoptysis in February, 1881 (which, no doubt, resulted from a vessel giving way in a small cavity), there was at no time any hæmorrhage. I may here state that hæmorrhage is of rare occurrence in cases of phthisis among the insane.

So far as I know, this case stands unique as regards the condition of the larger bronchi and pulmonary vessels, and that there was absolutely no lung. The real interest of the case centres in the pulmonary fistula, as being one more instance in support of the operative treatment of affections of the lung. The fistula was in the fifth interspace, and occurred at what Professor Marshall terms the "weak spot." For the anatomical relations of this spot, I refer you to Professor Marshall's lectures published in the *Lancet* for 1882. The fact that in this instance the opening was spontaneous, and not by operation, must not be overlooked; but the principle is the same.

Mr. Norman Porritt, in his admirable essay on *Intrathoracic Effusion* (page 169), says: "Ancient writers assumed that, when the pleural cavity was found full of pus, and the lung diminished in bulk and functionally inactive, the pulmonary tissue had been liquefied." The present case tends to support this theory, though Mr. Porritt cites several instances to show the incorrectness of the opinion held by ancient writers. I exclude any consideration of purulent collections in the pleural cavity; and I know that I shall be challenging criticism by saying that it is a point quite open to question whether a percentage of the so-called cases of empyema are not actual instances of pulmonary disease—that is, purulent collections in the lung-tissue.

At a meeting of the Royal Medical and Chirurgical Society in May 1884, two important papers were contributed on the surgical treatment of affections of the lung. Dr. Cayley related a case of pyæmic pulmonary gangrene, in which Mr. Pearce Gould punctured the lung with a large-sized trocar and cannula, and introduced through the latter a drainage-tube. Pus and a sequestrum of gangrenous lung were discharged through the tube. The child rapidly improved, and was discharged recovered. At the same meeting, Mr. Walsham related the case of a patient who had a phthisical cavity at the left apex; a small sinus appeared above the left nipple. He followed the sinus upwards to the second intercostal space, laid open the cavity, and washed it out with a solution of carbolic acid. A slow but great improvement took place. Other cases were mentioned; and the general opinion was, that single basic cavities, abscesses, and cases of pulmonary gangrene might, with safety and advantage to the patient, be opened and drained; but that, in the case of tubercular cavities, experience did not warrant surgical interference.

To return to the case under consideration, the first question we have to ask ourselves is, Would surgical interference have been advisable? I was much impressed at the relief afforded by the opening of the abscess, and after drainage of the pulmonary cavity; and, but for this happy occurrence, the fatal end must have come much earlier.

Had we had to deal with a subject in the full enjoyment of mental equilibrium, instead of one in the last stages of mental infirmity, I think a counter-opening and complete drainage of the pulmonary cavity would have been justifiable; but, as it happened, surgical interference, beyond the spontaneous fistula, was out of the question. Were a similar state of parts met with in a favourable subject, expe-

rience holds forth the best hopes of operative treatment. In more than one instance, complete recovery has followed the drainage of a pulmonary cavity; in others, temporary relief has been afforded; and the case I have just related adds one more to the short list.

There are few data to guide us, "but the one great fact in justification of surgical interference is the impotence of all known medical means of relief in such cases." And when the desperate nature of the cases, if left to themselves, is fully considered, there "would seem to be a still greater reason for wishing to convert a putrid cavity discharging its foul contents through the mouth, into a thoracic fistula, the secretion from which can be easily kept sweet." This alone "relieves the patient's distress, even when it fails to prolong life."

So far, then, experience warrants any such attempt to alleviate suffering and prolong life; and I would ask, Can we, in the majority of instances, hope for more, when fighting against the destruction of a vital organ?

VIOLINIST'S CRAMP TREATED SUCCESSFULLY BY ELECTRICITY.

Read before the Manchester Central Medical Society.

By ADOLPHE WAHLTUCH, M.D., L.R.C.P. Lond.,
Honorary Physician to the Hulme Dispensary, Manchester.

Miss M. J., aged 19, consulted me in July, 1885. She has been learning to play on the violin since she was twelve years old; and, during the last twelve months, whilst practising a short time, she felt obliged to stop, on account of a painful cramp in the upper left arm and right wrist. On examination, I noticed that she could not raise her left arm as high as she did the right one. In getting the violin in the proper position, the cramp and pain manifested themselves in the left deltoid, biceps, and pectoralis muscles; the right hand holding the bow soon felt unable to do so, owing to a weakness in the wrist. In every other respect, she enjoyed very good health. My treatment consisted in applying, three times a week, a continuous current of galvanism to each of the affected muscles, separately, for five to ten minutes at a time, using from five to fifteen Leclanché cells. To the right wrist I at first used the faradaic, and, later on, the continuous current. In all, I made nine applications within three weeks, when all unpleasant symptoms ceased. I saw her three months later, when she assured me that she could practise now for several hours daily without experiencing any inconvenience whatever.

In looking up medical literature, I was unable to meet with any record of cases of "violinist's cramp." This affection, though rare, yet belongs to a group of spasmodic diseases, amongst which the most familiar is that of "writer's cramp." Benedikt mentions a case of "knitter's cramp," and "tailor's cramp;" Watteville, "telegrapher's cramp;" Dupuytren, "coachman's cramp;" Henoch, "nailsmith's cramp;" Basedow, "milkmaid's cramp;" Clemens, "shoemaker's cramp;" Kunze, "typesetter's cramp;" and various authors, "pianist's," "painter's," "seamstress's," and "writer's cramps." No doubt, violinist's cramp is an analogous condition, having the same general characteristic—namely, the recurrence of spasm or pain in a special group of muscles, when called upon to execute a series of combined special movements. It is a disturbance of co-ordination, caused by over-exertion. The treatment generally consists in allowing temporary rest to the muscles implicated, and also rational and harmonious local gymnastics. But the most effectual results are obtained by the use of electricity. In the case mentioned by me, violin-practice was not stopped altogether during the treatment; my patient was allowed to practise for a very short time every day, and advised to play tennis, to write, to paint, and generally to use her hands in a variety of occupations.

PROFESSOR AXEL JÄDERHOLM died on October 9th at the age of forty-eight. He was born on April 9th, 1837, and entered as a student at Upsala in 1855. After his candidate's examination, Jäderholm came to Stockholm in 1862, where he continued his microscopic studies, and was appointed assistant in pathological anatomy. He took his licence in 1867, and was for some time assistant-physician to the medical clinic at the Royal Seraphim Hospital. Here he pursued his pathological and anatomical studies. The professor's chair at the Carolina Institute becoming vacant, Jäderholm was appointed to it, and had a favourable opportunity of bringing his scientific knowledge into use. In 1872, he was made chief editor of *Hygiea*.

VACCINATION.—Mr. M. Q. O'Callaghan, of Brailsford, Derby, has obtained a Government grant for efficient vaccination in the Longford district of the Ashbourne Union.