always louder on inspiration, and very often heard only then. This point alone would be diagnostic between the two.

What is this murmur? Has it any relation to the hæmoptysis? If so, what?

That it is an arterial murmur in some large vessel there can be no doubt; its character and the time of its occurrence admit of no other interpretation. Its situation is *exactly over the left pulmonary artery*,

Diagram of heart and great vessels, *in situ*, shewing their relations to the ribs, and the point (A), on the second left rib, at which the murmur was heard, immediately over the left pulmonary artery.

here placed in front of the descending aorta; and I cannot but believe that this vessel is the seat of the sound. If so, this man has such a condition as generates a murmur in his left pulmonary artery. What is that condition? Is it an aneurism? Is it a roughening of the inner surface of the vessel by atheroma, without any aneurismal dilatation? Is it any congenital malposition or maldirection of the vessel which throws the blood-stream into vibration? Is it pressure on the artery by an enlarged bronchial gland, or some other source of pressure? As far as any positive evidence at present goes, it might be either of these. I should say that the congenital idea was the least likely. If it be simply atheromatous roughening without yielding of vessel-wall, it can have nothing to do directly with the hæmoptysis. If it be aneurism one would have some difficulty in imagining it was the cause of the hæmoptysis, as that would involve its existence three years and a half ago, and its being then in such a state as to be a source of bleeding. Now I think that is rather incompatible with the man's condition at the present time, and with the extreme circumscription of the sound. I should be myself, I think, rather inclined to adopt the hypothesis that the murmur depends on the pressure of an enlarged bronchial gland on the artery, which enlarged bronchial gland might, by its pressure on a contiguous vein, offer an impediment to the escape of the blood from a certain district of the lung, and so produce the hæmorrhage. In that case the murmur would be indirectly, and not directly, connected with the hæmoptysis; and the hæmorrhage would both be divers results of one and the same cause.

There would be, however, the difficulty of the purulent secretion which on all three occasions preceded, and on the last two always accompanied, the appearance of the blood, in the way of any hypothesis that connected the hæmorrhage, even indirectly, with the murmur.

May 5th. This patient has come to me to-day complaining of a great increase in the hæmoptysis, beginning nine days ago, and lasting five days. It appeared to be caused by a cold which he took four days previously, and which settled in his throat, where it produced great irritation and loss of voice, with increase of expectoration. The cold was caught on Friday, April 22nd, and the blood appeared on Tuesday, April 26th; he thinks he spat blood about eighteen times that day; the largest quantity was a teaspoonful, the smallest a streak; it gradually increased till the afternoon, when the largest quantities were spat, and then diminished. The same thing occurred on the Wednesday, Thursday, and Friday, in reduced and reducing quantities, the great majority of the blood being mixed with phlegm. On Saturday, the 1st of May, it ceased. He looks the picture of health. On listen-

ing to the chest, the systolic arterial whiff is heard over the second left rib at the same point as before. Heart-sounds healthy; lung-sounds healthy; respiration 16; pulse 72; pulse respiration ratio therefore 2:9 = 1:4½.

The elements with which we have to deal in this case, for the construction of a diagnosis, are—lungs sound, heart sound, hæmoptysis, and an arterial murmur within the chest. And I think that, in any case in which those four conditions concurred, the *primâ facie* impression on nine minds out of ten would be that the hæmoptysis was most probably associated with the arterial murmur. And yet, in spite of the arterial murmur, and in spite of the evidence of soundness of heart and lungs that auscultation elicits, I am inclined to revert to my original opinion, formed before I had detected the murmur. I think, looking at the case all round, that this is the opinion to which one must come. The invariable antecedence, on all four occasions, of evidences of hyperæmia of the respiratory mucous membrane, the admixture of the blood with muco-pus, and the disturbance of the functions of the larynx, all point to the upper part of the respiratory tract as being the probable seat of the bleeding, while the length of time the symptom has existed, and the man's present condition, forbid the idea that the hæmoptysis has in this case its ordinary relation to thoracic arterial murmur.

The case, then, is a case of *coincidence*—a case in which certain conditions concur that would ordinarily be associated, and yet which are *not* associated. Probably in the next case—nay, in the next ten cases—in which, without any physical signs of disease of heart or lungs, hæmoptysis consisted with intrathoracic arterial murmur, the one would depend on the other, and the hæmorrhage would be the hæmorrhage of aneurism. This fact of *coincidence* it is that lends its chief interest to the case; nevertheless, the hæmoptysis of itself—so eccentric in its character, of such long standing, comporting with such health, so easily induced by the slightest exertion, so free from all the ordinary causes and accompaniments of hæmoptysis; and the murmur itself, so uncertain as to its cause, yet so certain and so singular as to its locality—each without the other is sufficient, in my opinion, to render the case one of no common interest.

What the final development will be it is impossible to say; but I shall keep my eye upon the case, and communicate any thing interesting that may turn up.

I may remark, in conclusion, that hæmoptysis from catarrhal ulceration of the larynx and windpipe is by no means an uncommon event. The absence of tendency to run into ulceration which, as a rule, characterises inflammation of the respiratory mucous membrane, is restricted to the lower portion of the respiratory tract. There can be no doubt, however, that pressure from enlarged bronchial glands is a real and probably not an uncommon source of hæmoptysis; and were it not for the fact that the hæmoptysis has been on all four occasions preceded by evidences of irritation, and a certain amount of inflammation, of the upper air-passages, my mind would abide by the idea of pressure by an enlarged bronchial gland, or glands, on the root of the left lung as the most probable cause of the hæmorrhage—a cause that would be more compatible with the production of the bleeding by the slightest exertion than that which is most likely its true cause.

IMPACTION OF A PENNY IN THE LARYNX FOR SIX YEARS: LARYNGOSCOPIC DIAGNOSIS AND SUCCESSFUL REMOVAL.

By JAMES PETRIE, M.D., Liverpool.

C. G. M., a pupil in a London orphan school, aged about ten years, whilst at play in January 1864, put a penny on the tip of his tongue; and, as he suddenly turned round laughing, it slipped into his throat. He immediately felt an intense sense of choking, to relieve which he thrust his fingers back into his mouth, and forced the penny downwards. The medical men attached to the institution, having been sent for, examined his mouth and passed down a probang; they then sent him to the school Infirmary, where he remained for several weeks under medical treatment and surveillance.

During the midsummer holidays of the same year, *i.e.*, about seven months after the accident, he came home and was placed under my care. I found his general health somewhat impaired, and there was considerable pain and tenderness on pressure about the upper part of the throat and sides of the larynx, with some swelling, but he had little or no difficulty in swallowing. Internally, the throat presented no unusual appearance except enlargement of the tonsils. The penny could be neither felt nor seen. His voice was weak and shrill, and his

breathing, when asleep, was accompanied by a loud stertor, or a species of snoring, which could be heard in the neighbouring room. He had a frequent and urgent cough, with free expectoration.

Both the stethoscopic signs and symptoms led me to think that, either from the penny passing down, or from some other cause, injury had been done to the larynx; or I thought it just possible that the coin was lodged somewhere in the forepart of the pharynx, giving rise to chronic inflammation of the mucous membrane of the larynx and trachea. Under treatment by tonics and anodynes, his general health improved, the cough became less troublesome, and at the end of the holidays he returned to school. I saw him again in December of the same year, and found very little change in his condition.

During the next two years (1865-1866), the symptoms of the laryngeal and tracheal affection remained nearly stationary; but he was evidently losing strength, and I could not help fancying that this state of ill-health was in some way due to the retention of the penny.

At the conclusion of 1867, a marked tendency to disease of the lungs showed itself; and he continued so unwell after his return to school, that I advised his mother to bring him home. I now found that I had to deal with a case of incipient phthisis; and Dr. Cameron, who saw him in consultation with me in May 1868, coincided in that opinion. By means of a generous diet, tonics, anodynes, and Dobell's pancreatic emulsion, he received benefit; but his improvement was still more striking from full doses of cod-liver oil, carbonate of ammonia, and Battley's sedative. Having gained sufficient strength, he took two voyages to the Mediterranean, from which he returned with great amelioration of the chest-disease, the condition of the larynx and trachea attracting but slight notice. There being now decided convalescence, I proposed that he should go on a trial voyage to sea, to the Brazils, whence he returned in very good general health about the beginning of December 1869.

Continuing to feel much interest in the case, I requested Dr. Cameron to examine him in the following January, and received the following particulars. He found his general health good, and that he had gained flesh and strength. There were no traces of the pulmonary lesion which had excited our apprehension in 1868; but the voice was feeble, and had a harsh stridulous sound, which was also audible when he breathed. He suffered from occasional cough, which, like the voice, was harsh and stridulous. The expectoration was scanty, and sometimes streaked with blood. He had no difficulty or pain in swallowing unless the morsel of food were unusually large; but he laid no stress on this symptom. The tonsils were enlarged, and on each side of the neck were a few enlarged and painful cervical glands.

It seemed to Dr. Cameron, on considering all the circumstances of the case, but especially the peculiar laryngeal symptoms, that they were inconsistent with ordinary disease of the larynx; and it occurred to him that, possibly, they might be due to the impaction in, or near the organ, of the penny which, it was supposed, had been removed at the time of the accident. An examination with the laryngoscope confirmed his suspicion by revealing the following appearances, which are described as they were seen reflected in the mirror of the instrument.

In the upper part was the epiglottis, considerably altered in shape, size, and position; its apex being bent forwards and downwards, the edges curled inwards on themselves (like the mouth of a pitcher), and the base—much enlarged—losing itself in the aryteno-epiglottidean folds: these were likewise much swollen. In the centre of the image was the upper opening of the larynx, wider and deeper than in health; and the vocal chords, the play of which, during the movements of respiration, was distinctly perceptible. All these parts were unusually vascular. Next was seen, stretching transversely across this opening, an object with a metallic lustre: it was imbedded below and on each side in the swollen aryteno-epiglottidean folds; and, measured by the eye,

seemed about three-quarters of an inch in length, and one-eighth of an inch in breadth at the centre.* Dr. Cameron identified this at once as the rim of the penny which had been swallowed in 1864. At the time of the accident it had probably been forced into the opening of the larynx,

* The woodcut must be regarded rather as a diagram than as an actual drawing of the parts.

and, gradually sinking lower and lower, had become fixed into its posterior wall.

From my knowledge of the case, I readily believed in this discovery of the long-lost penny; which I had also the opportunity of seeing, on several occasions, *in situ*, by means of the laryngoscope. Mr. Minshall, who was present during some of these examinations, formed the same opinion as to the position of the coin.

The exact situation of the penny having been thus satisfactorily determined, it was resolved, in consultation with Dr. Cameron and Mr. Minshall, to remove it without delay. The mode devised for operating consisted in passing down the forefinger of the left hand, as a guide, behind the epiglottis; then carrying the beak of a forceps specially designed for the purpose by Mr. Minshall and myself in the right hand over the tongue and round the base, at the back of the epiglottis, so as to seize the edge of the coin. On the 29th of January, the operation was performed by Mr. Minshall, in the presence of, and assisted by, Dr. Cameron, Mr. Hamilton, Mr. Little of the Southern Hospital, and myself. With considerable dexterity, Mr. Minshall fixed the blades of the forceps on the rim of the penny and extracted it, though not without some difficulty from its position. Its removal was attended by great pain; and for a few moments, owing to the obstruction of the glottis, suffocation seemed imminent. After the operation, a little blood and mucus were expectorated, and the patient soon began to experience the anticipated relief.

The penny was of the 1861 coinage, of a dark-green colour, and eroded on the surface, which presented, with the aid of a lens, a general "honey-combed" appearance. It weighed eighteen grains less than a well-worn coin of the same date; their respective weights being one hundred and forty-six to one hundred and twenty-eight grains—a difference which, we may infer, represents the loss undergone by the metal.

Subsequent Progress.—On examination with the laryngoscope a few days after the operation, it was found that the swelling and vascularity of the parts surrounding the laryngeal opening had much diminished; but there was now observed, on each side, in the aryteno-epiglottidean folds, and corresponding with the previous position of the penny, a clean-cut indentation or notch—evidently the spaces left vacant by its removal.

At the present date (June 18th), these clefts, though partially filled up, can still be distinctly identified, and the surrounding parts have not yet regained their normal condition. The boy's voice continues feeble and somewhat harsh, but it has lost its stridulous character: possibly, owing to the injury done to the larynx, its natural tone may never be completely restored. His health, in other respects, is very good.

The after-treatment consisted in the occasional application to the larynx, by means of the laryngeal brush, of a solution of tannic acid in glycerine, and the administration of tonics.

POSTSCRIPT.—A case has recently occurred in the Southern Hospital, showing the value of the laryngoscope in detecting foreign bodies in the larynx. A woman came to the Hospital, stating that she had swallowed a piece of bone, which she believed was in her throat. A probang was passed, with apparent relief, and she went away. Next day, however, she returned, still complaining; and as the voice and breathing were slightly stridulous, Dr. Cameron was requested to examine her with the laryngoscope, when he detected a small piece of bone stretched across the glottis, from before backwards, so as to cover one of the vocal chords. It was readily removed by Mr. Hamilton, one of the honorary surgeons of the Hospital, with a pair of long and sharply curved forceps, the blades of which opened laterally.

A CASE OF SPONTANEOUS RUPTURE OF THE UTERUS DURING LABOUR.

BY E. R. DENTON, M.R.C.S.E., L.S.A.,
Surgeon to the Leicester Provident Dispensary.

ON July 21st, I was hastily summoned by a midwife to assist in a case of labour. The patient was reported to have fainted. On arrival, I found her undelivered and *in articulo mortis*. On vaginal examination, the fetal head was found presenting normally, and far advanced towards the completion of the second stage. The outlet appeared to be of normal size; and there were no signs of deformity of pelvis or protracted labour. I immediately made several attempts to deliver by means of the short forceps. These were unsuccessful, from the collapsing of the cranial bones, which allowed the blades to slip off on very moderate traction. By this time the patient was dead; and as there was evidence of the death of the child also, the performance of the Caesarean section did not appear to be indicated. The non-recession of the head and body