observation, the disc of lead was again applied to the left forearm at 3.53 P.M. At 3.58 sensation began to return in the neighbourhood of the plate, while it disappeared at the corresponding part of the right forearm, and this went on spreading until 4.2½ P.M., when the patient began to weep, and then the transference of the anæsthesia to the right side was found to be complete. The left eye, too, was found to be normal, both as regards vision and the discrimination of colours. With the right eye, however, she could not read the same type as she did before the plate was applied. With it she could distinguish blue, but yellow she called brown, and the other colours she said she did not know.—4.13 P.M.: The same plate was applied to the right forearm. At 4.18 sensation had returned in the neighbourhood of the plate, and the needle punctures made in testing that part began to bleed. At 4.20 she began to weep, and then it was found that the transference of the anæsthesia from the right to the left side, which had been slowly advancing, was complete. The right eye was now normal in every respect, while with the left she could read medium type as before, but could distinguish no colour except blue.

Nov. 22nd.—3.15 P.M.: Patient in same state as on admission, except that she could distinguish colours with the left eye, with the exception of black and yellow, which she called brown. At 3.21 P.M. a circular disc of wood, about three inches in diameter, was applied to the left forearm. At 3.24 there was a transference of the anæsthesia to the right side, the sensation on the left side first appearing in the neighbourhood of the disc, from which it quickly spread, and the patient weeping, as on former occasions, when the transference took place. The left eye was now found to be perfect in every way, while with the right, although she could see print, she could not read it, and she could distinguish all colours, except yellow, which she called brown. At 3.34½ P.M. a disc of wood was applied to the right forearm, and at 3.37 the transference of the anæsthesia to the left side occurred exactly in the same way as in the last observation. These results were so extraordinary that they were repeated, and with exactly the same result.

24th.—Right side in every way normal. Left side complete anæsthesia as on admission, but with left eye can read print of medium size at a distance of an inch and a half, and can distinguish all colours except yellow, which she calls brown. 9.30 A.M.: Five sovereigns were applied to the left forearm and kept there for thirty-seven minutes. It was then found (what had been indistinctly observed a quarter of an hour earlier) that there was partial return of sensation as regards touch and pain, but not as regards temperature, to that side, and a corresponding loss of sensation (including, however, defective sense of temperature) on the right side. There was no change, however, in the condition of the eye.

26th.—Patient in the same state as at the end of last note. 9.9 A.M.: Lead plate applied to right forearm. At 9.13½ sensation became much more distinct in the neighbourhood of the plate; and at 9.15 the patient began to weep, and sensation was completely restored to the whole of the right side. With the right eye all the colours were distinguished except yellow, which was called brown. The left side of the body, including the tongue, was now completely anæsthetic, but by the left eye all colours were distinguished accurately.—9.19 A.M.: Lead plate applied to the right side of the face, and in two minutes all colours were distinguished accurately with the right eye, but with the left she called yellow brown, and was not sure about green.

Dec. 14th.—Since last note patient has been left entirely to herself. When tested to-day she was found to have dulled sensation on the right side, a needle stuck into the arm or leg only being felt as something touching her. On the left side she could only feel very heavy pressure. The tongue was in the same state as the body—that is, sensation was dulled on both sides. Her perception of colours was nearly perfect, although yellow she still called brown with the left eye. 4.37 P.M.: A tin-plate applied to the left forearm. At 5.7 P.M. there was a decided though not complete transference of anæsthesia to the right side, while the sensation was nearly though not quite restored on the left. With the right eye she now called yellow brown.

Jan. 4th, 1880.—Sensation dulled on both sides of the body, less so, however, on the right than on the left side; tongue in a similar condition. Can distinguish all colours equally well with both eyes.—11.15 A.M.: Lead plate applied to left arm. At 11.20 there was some improvement in the sensation on that side, and at 11.40 it was nearly complete,

while on the other side it was proportionately dulled. Tongue and eyes as before.

Feb. 13th.—It was intended to test the patient with solenoids and electro-magnets, in conjunction with Prof. McKendrick, but she was allowed an airing in the grounds, and took advantage of it to get away. A patient in the wards saw her making for a tram-car in the neighbourhood, and said that "She walked as well and as quickly as any woman could."

In the present state of uncertainty as to the nature and explanation of the phenomena observed in cases such as that just reported, it will probably be better to abstain from offering any speculations upon the subject, although it is to be hoped that by and by, when our experience of them becomes more extensive, a trustworthy opinion may be formed.

But it may be pointed out, in conclusion, that the foregoing differs from the case which I formerly put on record in these respects:—

1. That the convulsive seizures occupied a very subordinate place in the symptomatology of the disease.
2. That no tenderness in the ovarian region could be made out, although this may be due to the ovary having been protected from pressure by the prominent abdomen.
3. That the application of a disc of wood had a similar effect to that of a metallic disc, as regards the transference of the anæsthesia, &c., from one side of the body to the other.
4. That in no case did we succeed in making the whole body at once either æsthetic or anæsthetic.
5. That, in addition to the usual symptoms of hystero-epilepsy, there was well-marked spinal irritation, and morbid states long regarded as manifestations of the hysterical diathesis—namely, hysterical hemiplegia and phantom tumour of the abdomen.

Glasgow.

PASSAGE OF NEEDLE OF HYPODERMIC SYRINGE INTO BRONCHUS; EXPECTORATED DURING A PAROXYSM OF COUGHING THIRTEEN DAYS AFTERWARDS.

By SYDNEY JONES, F.R.C.S.,
SURGEON TO ST. THOMAS'S HOSPITAL.

THE following case has recently come under my notice, and seems interesting enough to be put on record.

On June 21st a medical man, after using a hypodermic syringe, put the needle (size exactly indicated in figure below) between his lips. During an inspiration this was drawn into the larynx and passed down into the left bronchus. It caused occasional paroxysms of coughing,

which the patient described as not of a severe character; and the needle could be felt by him somewhat above and to the left of the left nipple. The patient went about his work as usual, and occasionally inverted himself in the hope that the foreign body might be expelled; but, finding that this did not occur, he consulted me on the 25th of June, four days afterwards. By means of the tripod I suspended him by the heels and subjected him to succussions in different directions, but did not succeed in evacuating the needle. I saw him the next day with Dr. Bristowe, who carefully examined his chest, but did not find any appreciable interference with the admission of air into the lung. We advised that the patient should be kept as quiet as possible, and were of opinion that any operative interference would be of doubtful benefit, and might do serious mischief. After about a week the patient began to feel less discomfort about his chest, "only occasionally being conscious of something preventing comfortable expansion." He had occasional fits of coughing, and on four or five occasions got rid of small pellets of bloody mucus. For a week his nights were somewhat restless; after that he slept better, but generally coughed and expectorated a little mucus on waking in the morning.

On Sunday, July 4th (the thirteenth day), the patient, whilst dressing himself about 10 A.M., had a fit of coughing more severe than usual, and presently got rid of the portion of needle marked *a*. The process of oxidation had gone on rapidly, and the needle had separated into two portions at the spot marked *c* in the figure. A few hours later the other bit was coughed up. In both pieces the needle was much thinned. The white metal forming the tip of the needle was not at all acted on. Since getting rid of the needle there has been no cough or expectoration.

George-street, Hanover-square.

REPORT OF A CASE OF AORTIC ANEURISM TREATED BY GALVANO-PUNCTURE,

AT THE WESTMINSTER HOSPITAL, UNDER THE CARE OF
DR. STURGES AND DR. HUGHES BENNETT.

With a Commentary

By A. HUGHES BENNETT, M.D.,

ASSISTANT PHYSICIAN TO THE HOSPITAL.

Antecedent History.—James G—, aged forty-three, a labourer, had been a soldier for twenty-one years, and left the army in 1876. During this time he had been a perfectly healthy man, and had never suffered from any illness. Two years ago he began to experience pains in the chest, cough, and dyspnoea, which did not, however, prevent him following his usual occupation as an out-door labourer. In September, 1878, he observed two swellings on the upper part of the chest, each about the size of half a walnut; and the above symptoms so increased in severity that he was admitted into the Westminster Hospital on the following month. The existence of an aortic aneurism was then recognised, and he was kept under observation for five months, after which time his symptoms were greatly relieved. For the next sixteen weeks he remained at home, feeling so well that he subsequently resumed his work (road-making), which he continued to perform without difficulty till November, 1879, when he “caught a cold,” and the former symptoms of cough, dyspnoea, and pain in the chest returned, suffering from which he was readmitted into the hospital.

Condition on admission.—The patient when admitted was a healthy-looking, powerfully built man, whose organs and functions were normal, except those of the chest. *On inspection:* A tumour of somewhat oval shape, five and a half inches in length and three inches in breadth, was seen lying obliquely at the upper part of the chest, its upper margin close to the inner third of the right clavicle and its articulation, and its lower border situated a little to the left of the sternum, about four inches above the ensiform cartilage. The surface of the tumour was irregular in form, and consisted of three rounded elevations, the upper or largest, the middle or smallest, and the lower, which was nearly as large as the first; and they measured vertically at right angles to the base of the growth respectively one, one-half, and three-quarters of an inch. The skin over the tumour was of normal colour, but, especially over the lower segment, was tense and glossy in appearance. No pulsation was anywhere visible. The veins over the manubrium sterni were considerably dilated. The whole of the right side of the chest, both back and front, was much larger than the left, the ribs being more expanded and the spine being slightly curved towards the left. The pupils were equal and normal. *On palpation:* The apex-beat of the heart could not be detected. The tumour was felt everywhere soft and pulsating, each impulse being synchronous with the heart's beat. There was also a distinct sensation of expansion in every part of the swelling. These signs were most marked in the lowest elevation, where the skin was tense and thin, so as to give the sensation as if the blood was flowing directly under the finger. No purring or thrill could be detected. Pulsation could also be felt for some distance to the right of the tumour, and gradually fading off towards the axilla. On the left side there was no impulse. No pulsation could be detected in either carotid artery, but it was present in the temporals. The pulse at

the left wrist was of good strength, at the right very feeble. The expansion of the chest on the left side on inspiration was well marked, while on the right it was in comparison imperfect. *On percussion:* The heart's dulness could not be measured, that organ evidently being covered by the left lung. Over the external tumour there was absolute dulness, and this extended to the right as far as the nipple-line, and also a little to the left of the swelling. The area of complete dulness extended vertically from the clavicle to the liver, and horizontally from the left border of the sternum to a line drawn obliquely through the nipple parallel to the direction of the tumour, measuring in breadth six inches and a half at its middle. Percussion over the right lung elicited great loss of resonance, but no actual dulness. The left lung was everywhere hyper-resonant. *On auscultation:* Over the heart, both sounds were distinctly heard to be perfectly normal at apex and base. These healthy sounds were propagated all over the right side of the chest, before and behind, but chiefly over the dull area. They were also distinctly audible on the left of the sternum, but faded off so as to be almost inaudible at the side and back. At a spot two inches below the middle of the right clavicle, a distinct but soft blowing murmur was heard synchronous with the first sound of the heart, and propagated for an inch or so on every side. Puerile breathing with slight sibilus were heard all over the left lung, which was otherwise normal. There was imperfect and feeble vesicular murmurs all over the right lung. The patient when in bed suffered in no way except from slight cough; he had no dyspnoea, difficulty of swallowing, or other symptoms of pressure.

It was decided to treat the case by galvano-puncture.

First operation, Feb. 17th, 1880.—Two insulated needles, each attached to different poles of the battery, were introduced into the sac at the lowest elevation, about an inch and a half apart, and two inches in depth. By the aid of a rheostat the full force of twenty cells of a Leclanché's battery was very gradually introduced into the circuit, so that the galvanometer indicated 25 millivebers. This current continued to pass through the blood in the aneurism for three-quarters of an hour. During this time the patient suffered from no inconvenience whatever. He declared he felt nothing but the introduction of the needles, the pain of which was trifling, and that while the current was passing he felt nothing. The withdrawal of the needle attached to the negative pole was followed by a rush of gas, and a few drops of dark-coloured blood. The positive needle was adherent to the tissues, was followed by no blood, and its uninsulated point was partially eroded away. A piece of dry lint was placed over the tumour and retained there with strapping. For some hours after the operation the patient suffered from pains flying about his back and shoulders, but after a hypodermic injection of morphia these disappeared. Next day the patient was well in every respect, there had been no bleeding, but there was slight puffiness of the skin in the neighbourhood of the punctures. Two days later the whole of the lower elevation was swollen, the skin was tender and covered with a red blush. No marked change was detected on the pulsation. Seven days after the operation the patient continued without any unfavourable symptoms.

Second operation, Feb. 25th.—Two needles, as before, were inserted into the sac of the upper segment of the tumour about an inch and a half apart, and two inches and a quarter in depth. The points of both needles came in contact with bone. A current from twenty cells, indicating on the disc of a galvanometer a force of 30 m. v., was passed through the aneurism for an hour. The patient suffered no pain or uneasiness during the operation. On withdrawing the needles there was no hæmorrhage. The positive needle was partially dissolved, and the negative was bright and unacted upon. Two days later the patient stated that he had suffered from no uneasiness except from flying pains about the back and shoulders. The upper segment of the tumour was swollen and puffy, and over it the skin was faintly red, but there was no tenderness on pressure. Four days afterwards the condition was the same, but this portion of the tumour felt firmer and less pulsatile than formerly.

Third operation, March 7th.—The needle attached to the positive pole was inserted at the under border of the lowest elevation, and that to the negative at the centre of the middle segment of the tumour. The details of the operation were as before, and the same strength of current was used for an hour, the needles being inserted two inches and