Sept. 26th, 1889, nearly five years afterwards, that I had an opportunity of testing its value in actual practice. I gladly acknowledge the apparent readiness with which the basilyst-tractor enabled me to cope for the most part with the awkward state of things. The basilyst is a powerful double-bladed instrument. A complete terminal screw is formed when the blades are closed. It was, I concluded after many trials, impossible for me to use the terminal screw as a perforator of the base of the skull in this case, because the head could only be imperfectly steadied by external manual pressure. Invariably any attempt to enter the screw into the base just pushed the head away.

I soon realised this, and substituted the Smellie's perforator with which to make the initial aperture near the basi-sphenoid. Granted then the apparent failure of the basilyst as a perforator of the loose after-coming head, which has been proved so difficult to steady, it was clear that if the basilyst were passed through the initial aperture now made, and the blades of the instrument forcibly separated, the base of the skull would be freely lacerated. It is true a large gap was made, and but little brain matter came out until after I had passed the external blade, the tractor, and commenced the traction. Traction through the narrow pelvis caused quite a sudden shower of brain matter, and the foetal head in the grip of the basilyst-tractor quickly followed. The whole operation did not occupy more than twenty-five minutes, and fully half of this period was lost in the attempt to perforate.

The woodcut shows the basilyst within the skull and the tractor over the face with the thumb screw in the handle tightly "driven home." The lower

FIG. 6.

maxilla was broken, and the upper maxillary, sphenoid, and palate bones partially crushed, lying between the blades. The grip was a firm and secure one; either this or the occipital grip is advised by Professor Simpson. No portion of bone in the foetal head was uncovered to do damage to the maternal tissues. The tongue, the skin, and some of the deeper structures form the dependent tags represented in the woodcut. The base of the skull is recognisable as little more than a ring of bone. The basi-occipital, basi-sphenoid, and petrous-temporals are all separated on opposite sides of the gap. The perforation had been made somewhere near the basi-sphenoid, and the powerful lacerating force of the basilyst had driven the basal bones widely apart. The vertex was not perforated. Whenever the compressing force was withdrawn the head at once assumed a more rounded contour, like the normal head.

Lateral compression flattens the head similarly to the flattening of an empty indiarubber ball syringe; but, unlike the latter, the sutures and bones of the head produce a more irregular surface. The col-

lapsed head in its bi-parietal and bi-mastoid diameters easily glides between the points of a pair of callipers an inch and a half apart, and increased pressure effects a further reduction until the callipers need have their points little more than one inch apart. The collapsed head in its occipito-frontal diameter was not quite so reduced; with moderate pressure it would just pass between the points of the callipers, an inch and a half apart; any further reduction of this diameter, I believe, is practically impossible on account of the shape and relations of the occipital, frontal, and upper maxillary bones. The labour after the delivery of the head was terminated by the natural expulsion of the placenta. The uterine douche of 1 in 4000 sublimate solution was used immediately. With the exception of slight febrile disturbance in the first week, the temperature twice at night reaching 101.4°, the patient made a good recovery.

Liverpool.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

ST. THOMAS'S HOSPITAL.

SURGICAL CASES OF INTEREST.

(Under the care of Mr. CROFT.)

FRACTURE of the anatomical neck of the humerus, with displacement of the head of the bone downwards or downwards and forwards into the axilla outside the capsule, is an accident of considerable rarity. It is somewhat surprising that there is no instance on record in which this separated head has acted as a sequestrum and required removal as such, for when unattached to any part of the torn capsule it is quite isolated from blood-supply. A case is described as having been under the care of Poland¹ at Guy's Hospital, thought to have been a dislocation of the humerus into the axilla; but under chloroform a fracture through the anatomical neck was detected, and the displacement of the bone could not be reduced. Although two inches shortening resulted, the patient regained considerable use in the limb. Fraser² replaced the dislocated head in a boy aged fifteen years, and obtained a good result. Morton,³ who had to treat a fracture in this situation with displacement of the head, was one of the first to carry out excision of the separated fragment; he obtained a satisfactory result. At a meeting of the Society of German Surgeons⁴ in 1888 Helferich narrated the history of a case in which he had cut down upon the separated epiphysis of a humerus, reduced the displacement, and secured the head of the bone by means of a steel pin, which was kept in position for a fortnight. The result was satisfactory. At the same meeting Bruns reported two cases and Woelfler one, of separation of the epiphysis or fracture, with dislocation of the head, successfully treated by excision of the upper fragment. In this patient there was considerable shock, and this, as well as the severity of the local injury, testified to the amount of violence to which he had been subjected. In addition to the fracture and displacement, there was very severe contusion and stretching of the nerves, and extravasation of blood in the axilla, and it was a long time before the man regained power to any extent in the arm; even now there is some weakness remaining. For the account of these cases we are indebted to Mr. Turney, late house surgeon.

CASE 1. *Dislocation and fracture of the head of the humerus.*—T. G—, aged thirty-three, was admitted on Nov. 8th, 1889, having fallen through an open trap-door for a distance of about eighteen feet. He was taken to a medical man, who diagnosed dislocation of the right shoulder, and, failing to reduce it, sent him to the hospital. On examination, the shoulder was obviously flattened, the head of the humerus was absent from the glenoid cavity, and the upper end of the bone was carried upwards, forwards, and inwards. Measurement from the top of the shoulder to the external condyle showed one inch shortening. A hard semi-globular mass was felt lying free in the axilla, and this was supposed to be the detached head of the humerus. There was extensive ecchymosis over the outer part of the great pectoral, which later on extended over that side of the chest. The patient was shortly afterwards anaesthetised, and an ineffectual attempt was made to get the free head back into the glenoid cavity. On Nov. 11th Mr. Croft performed the following operation. An incision was made along the anterior fold of the axilla, and, dissecting down through tissues infiltrated with blood, he found the head of the bone lying loose just below the glenoid cavity. The nerve cords and axillary vessels were roughly separated from the other tissues. The upper end of the

¹ Guy's Hospital Reports, Third Series, vol. i.

² American Journal of the Medical Sciences, 1869.

³ International Encyclopædia of Surgery, vol. iv., p. 120.

⁴ Sajous, Annual of the Medical Sciences, vol. iii., G. 3.

shaft was examined and the jagged end trimmed with bone forceps. The fracture ran almost exactly through the anatomical neck, the broken surface being very irregular. The cavity was syringed out with a solution of perchloride of mercury (1 in 1500), the wound stitched up with a small drainage-tube, and antiseptic dressings applied. The night of the operation the temperature reached 100·6°, but after that never exceeded 100°. There was very free sero-sanguineous discharge during the first twenty-four hours. The last stitches were taken out on Nov. 18th, and the wound was healed absolutely without suppuration on the 21st. The ecchymosis during the first few days extended all over the right-side, the shoulder, and down the arm to the elbow. On Nov. 26th the patient had hardly any power in the forearm or the fingers, all the movements being affected; there was considerable mobility at the shoulder, but no power of voluntary movement. From this time till the man's discharge on Feb. 4th, 1890, he was treated by one hour's massage a day and the interrupted current twice a week. He steadily but slowly improved, and when he left the hospital could close his fingers with some degree of force and could with difficulty get the hand to his mouth by movement at the elbow. He had some mobility at the shoulder-joint, but very slight voluntary power. There was still much induration of the tissues about the upper arm. The patient continues to improve.

In the hospital practice of this country bullet wounds are of comparative infrequency, and the account of this case will be read with interest. In the more favourable surroundings of civil life these injuries, though always grave, are much less fatal than during warfare; the missiles are usually smaller, the patient is seen at an earlier date, and it is easier to secure rest and carry out a definite plan of antiseptic treatment. During the American War the mortality from supposed penetrating wounds of the chest was 65·19 per cent., showing an improvement on the English returns for the Crimean campaign, which were 79·26 per cent. An important event in this case was the onset of symptoms, vomiting of blood, &c., which might have been due to wound of the stomach, and on account of which exploratory operation was undertaken. The operation itself, which was carried out with full precautions, proved quite harmless, and there is no doubt that operative measures for wounds of the hollow viscera are most successful when performed early before the onset of peritonitis. We published in 1887⁵ the account of a case somewhat similar to this which had been under the treatment of Mr. Croft. The patient, aged thirty-three, had shot himself with a revolver in the second intercostal space on the left side, just internal to the nipple line. The bullet, which was found on the vertebral border of the scapula, about an inch and a half from the spine, was extracted some nineteen days later. The symptoms presented by the man were those of severe shock, emphysema of the chest wall extending to the neck, hæmoptysis, hæmopneumothorax, and localised pneumonia. Recovery was complete, and the diagnosis further confirmed by the coughing up of a portion of the bullet a month after he left the hospital.

CASE 2. Pistol shot wound of the chest and lung; recovery.—O. H.—, aged twenty-three, was admitted to the Edward ward of the hospital at 1.30 P.M. on Nov. 11th, 1889, having attempted suicide with a revolver two hours previously. When first seen he presented the symptoms of collapse with a feeble pulse and cold perspiring skin. He was, however, quite conscious, and complained of thirst. No blood had been coughed or spat up before admission. Respiration 36. On examination a large round hole was found burnt through his shirt and vest over the præcordial region or slightly below. Corresponding to this in position was a small round wound three-quarters of an inch in diameter in the thoracic wall; its exact position was three inches below the left nipple and two inches internal to it, two inches and three-quarters from the middle line at the level of the tip of the ensiform cartilage, and three inches vertically above the thoracic margin. There was slight bruising of the margin of the wound, but no blood. The surface was cleansed and an antiseptic dressing at once applied. On examining the back a small, hard, round substance was felt a little to the left of the mid-line at about the level of the nipple, and therefore higher than the aperture of entry. It was tender on pressure, and

there was no crepitus about it. A small quantity of bright blood was coughed up soon after admission. During the first six hours after admission, the patient gradually developed the signs of pneumo-thorax on the left side; that half of the chest in its upper portion was hyper-resonant, and the bruit d'airain was elicited. There was dulness at the left base, with other signs of fluid, probably blood. At 4 P.M. the temperature was 96·4°, pulse 80, and respiration 36. At 12 P.M. the temperature was 99·2°, pulse 104, respiration 40. At 12 P.M. the patient vomited a large quantity of blood of a dark colour. He was much troubled with cough and dyspnœa.

Nov. 12.—1.30 A.M.: Patient still vomiting blood in small quantities. Mr. Croft decided to explore the abdomen. At the time of operation the epigastric region was fully resonant, and there was no dulness in the flanks. A median incision was made four inches in length and terminating below at the umbilicus. On the peritoneum being divided the distended colon presented; the finger was then inserted, and the stomach found to be apparently uninjured; in fact, the inner surface of the abdominal wall corresponding to the wound was found to be intact. There was no blood in the abdominal cavity. The wound was closed and dressed antiseptically.

13th.—Till 2 P.M. to-day the patient was fed by the rectum, and only given ice to suck. He is now given milk and arrowroot in small quantities and frequently. More blood was vomited for some hours after the operation. The patient still coughs up small quantities. Temperature normal; pulse 72.

16th.—Patient still on fluid diet. Has no pain. On the left side of the chest there is still dulness as far forwards as the post-axillary line, and up to the angle of the scapula, with signs of fluid. Slight cough; sputa blood-stained.

28th.—The abdominal wound is now healed. The dull area of the chest is somewhat less.

Dec. 9th.—Mr. Croft made an incision over the substance which was mentioned as having been felt near the spine at the level of the tenth left rib, and removed it. As expected, it proved to be the bullet. It was of a conical shape, and deeply grooved down one side. It weighed forty-three grains, as against forty-two, its original weight.

12th.—The patient was provided with an abdominal belt, and discharged well. There is still dulness at the left base, but no other sign of disease.

DUNDEE ROYAL INFIRMARY.

A CASE OF SPINAL MYELITIS; DEATH; REMARKS.

(Under the care of Mr. A. M. STALKER.)

SINCE the paper which was read by Dr. Charlton Bastian at the meeting of the Medical and Chirurgical Society in February,¹ on the Symptomatology of Total Transverse Lesions of the Spinal Cord, a modification of the current views as to the symptoms of complete transverse lesions of the cord will be necessary,² and we look forward to reports of cases bearing further evidence as to the truth of Dr. Bastian's contention. Mr. Stalker's case is to some extent a contribution to the subject, but much of its value is lost from want of the evidence as to the exact lesion on which the symptoms depended, and which could only be supplied by a post-mortem examination. For the following report we are indebted to Messrs. W. Douglas Erskine and J. A. Campbell Kynoch.

A. R.—, aged thirty-four, was admitted on March 27th, 1889. She complained of weakness with some pain in the left shoulder, and had had these complaints for nearly a year. On admission she was ill-nourished and anæmic, walking slowly but steadily, with but a moderate appetite, constipated bowels, a quick pulse (120), and no disease of the thorax or abdomen. Temperature was 99°, and for some weeks after mostly normal. She said that she menstruated regularly up to the time of entrance into the hospital. The pain about the shoulder she said kept her from sleeping. There was nothing wrong with the urine. Various remedies, constitutional and local, were tried on the supposition that the case might be rheumatic, but none of them had the smallest permanent effect. She lost sleep at night with the pain, which, from being confined to the left shoulder, spread to the other, and after a few days more to the front of the upper part of the chest.

⁵ THE LANCET, vol. i. p. 266.

¹ THE LANCET, vol. i. 1890, p. 466.

² Ibid., p. 557.