gelatinous substance, which separates whilst it unites them; so lightly, indeed, is the connexion maintained, that, in sawing the growth into halves, the smaller ivory portion easily separated from the bony portion, and it required the greatest care to prevent a similar separation of the remaining larger ivory portion. This semi-fluid connecting tissue was seen, under the microscope, to have the characters of actively-growing cartilage, being crowded with nuclei. There was also commencing ossification in it.

In his remarks, Sir William called attention to the difficulty experienced in the removal of so large a tumour, and one with such extensive attachments, and the necessity of going about the proceeding with great deliberation and forethought. No surgical treatment had been attempted in this case, which had been kept under observation for a few weeks for the purpose of studying the tumour, and also that the patient might get accustomed to the hospital. The patient seemed to have improved since his admission. The steps of the proceeding, which are given elsewhere, were then gone through, and attention called to the effective way in which these incisions allowed the tumour to be exposed, and the slight disfigurement which followed the operation. The instruments used were then shown: the saw with a bowed handle above the blade, so that the hand is above, and does not interfere with the blade sawing deeply into the bone; the lion forceps were especially dwelt upon, as without them these formidable operations about the jaw could not be so readily or effectively performed; these strong forceps were invented by the operator, many years ago, when he began to operate on tumours of the jaws, and have been found most invaluable. Formerly, in many instances the tumours were said to be in the antrum when in fact they grew from the walls, and compressed the antrum. In the present instance the tumour, as well as implicating the wall of the antrum, affected also the floor of the orbit extensively, displacing the eye considerably. Twenty-five years ago the incisions would have involved the roof of the mouth, all the teeth, and half the palate being removed; by these means the patient's chance of recovery would have been rendered less, and the operation more severe. In this case the teeth, which were very good, were left, and the palate not interfered with; the operation is more difficult, as it is not easy to saw horizontally, but the gain is great. The eye in this case was carefully dissected from the orbit, and entrusted to an assistant.

Post-mortem examination.—There was a large cavity in the left side of the cheek, lately occupied by the tumour; there was no clot in it. The upper incision had begun to unite by lymph. The space extended backwards. No portion of the tumour remained. There was a projection about the size of a hazel nut from the sphenoid, near the optic foramen. The tumour implicated the optic foramen, and extended downwards into the fossa of the skull, on the left side, by the sphenoidal fissure. The optic, third, and fourth nerves were to be seen going through the enlarged bone. The brain was quite normal at this spot as elsewhere, and did not seem to have been pressed upon. There was a slight clot non-adherent, and not filling up the left internal jugular vein at the lateral sinus. The posterior lobes of both the lungs were congested, broke down under the finger, and sank in water. He presented during life no abnormal chest symptoms. There was a softish clot in the pulmonary artery. The heart and other organs were remarkably healthy.

UNIVERSITY COLLEGE HOSPITAL.

FOUR CASES OF LITHOTRITY.

(Under the care of Sir HENRY THOMPSON.)

WE witnessed a very unusual sight at this hospital on the 29th ultimo. Four patients were brought into the operating-theatre to be submitted in succession to lithotritry by Sir Henry Thompson. Three of the patients were over sixty years of age, and the fourth was more than fifty years old. No chloroform was used in any of the cases, nor was the bladder filled either artificially or by spontaneous retention of urine. Sir Henry succeeded by the first movement of the lithotrite in seizing and crushing the stone (and, in one instance, two calculi) in three of the patients. In the fourth case, which had already been submitted to four previous crushings, Clover's evacuating apparatus speedily removed the few remaining fragments.

The time occupied in thus operating upon all the four patients, including their arrangement and removal from the

table, did not exceed fifteen minutes. Sir Henry employed his own peculiar lithotrite, which seems to give remarkable facilities for rapidity of manipulation, and safety as regards the mucous membrane of the bladder. He pointed out, in some remarks to the class, the definite process which he employed. The lithotrite being introduced into the bladder, and the blades directed upwards, the instrument is opened and closed. In the three cases mentioned the stone was at once caught by the first movement. When this is not the case, he slightly inclines the lithotrite to the right, opens and closes it; then, if necessary, to the left; and, lastly, with the blades downwards. If these processes are not successful, which is very rarely the case, he withdraws the lithotrite as far as the neck of the bladder, and repeats the movements with the blades reversed. The apparent ease, absolute precision, and rapidity of the process, the painlessness to the patient, and the palpable success of the procedure (the crushing of the stone could be distinctly heard, and its result seen in the detritus gathered within the blades of the instrument), were certainly very remarkable. One could not but feel very hopeful regarding the future of an operation which, in the great majority of cases, is as safe and simple as it is effective.

HOSPITAL SHIP, "DREADNOUGHT."

FRACTURE OF THE CRANIUM, EXTENDING FROM THE OCCIPUT INTO THE POSTERIOR FOSSA OF THE BASE; EXTENSIVE LACERATION OF RIGHT ANTERIOR LOBE OF CEREBRUM; DEATH.

(Under the care of Mr. ROOKE.)

ALTHOUGH fracture of the base of the skull is not an injury of rare occurrence, and examples of it are frequently observed in the post-mortem theatres of the hospitals both in London and in the large manufacturing towns of the provinces, the following case presents several points of interest in connexion with the causes and immediate results of the lesion. The subject of this report received an accident which at first seemed to those about him to be of a trivial character, but the autopsy revealed not only an extensive fracture of the vault and base of the cranium, but also severe lesions of the soft parts within. Fracture of the base was not caused in this instance by *contre-coup*, but by the extension of a simple cleft in the occiput, which commenced at the exact spot of the original injury. This case would seem to bear out the views of M. Aran, which have been expounded by Mr. Prescott Hewett in his article on *Injuries of the Head*, in Holmes's "System of Surgery." According to M. Aran's views, fracture of the base rarely occurs by *contre-coup*, but in most instances by a continuation of a simple cleft running downwards from that part of the vault which was struck directly in the accident.

Hans R—, aged twenty-four, a strong, muscular sailor, was admitted into the Seamen's Hospital on August 23rd, at two P.M. He was in a semi-comatose state, and the following history was given by his captain:—About five hours before, when engaged at work on board his ship, and elevated only three feet above the deck, he suddenly lost his footing, and fell backwards. The back of his head came in contact with the level surface of the deck. He was at once rendered insensible, and as he remained in this state for more than three hours, it was thought advisable to take him to some hospital. He was then put into a boat, and carried from the West India Docks to Greenwich.

The patient when admitted was quite unconscious; the surface of the body was cold, and the pulse scarcely perceptible; both pupils were contracted. There were no marks of external injury; the ear-passages were free from blood or watery discharge; and with the exception of a small quantity of dry and hardened blood clot at the external orifice of the left nostril, there was no sign of bleeding from the nose. The man was at once put to bed, and heat was applied to the lower limbs, and cold to the head. In the course of an hour some amount of reaction was established, and the patient then became very restless, tossing the bedclothes about, and moaning continually. Some yellow fluid was vomited, and a quantity of frothy mucus mixed with blood was brought up from the air-passages. The respiration was short and deep, and the chest sounds were increased in intensity. The patient remained in this condition during the rest of the day; he never became conscious, and towards the evening was affected with

short attacks of clonic spasm. Towards four A.M. on the following day, he became very quiet and pale, and died about half-past four A.M.

A marked symptom presented by the patient from the time of his admission until death was constant vomiting of bilious fluid, and also expectoration of thick, frothy, and blood-stained mucus, of which more than half a pint was thrown up.

Autopsy, twenty-two hours after death.—The body was that of a strong, healthy, and well-developed man. On careful examination of the outside of the head, a patch of ecchymosis was found on the left side of the occipital protuberance; and after the soft tissues had been carefully dissected away, a simple linear fracture was observed, which commenced about half an inch below the left limb of the sagittal suture, and extended downwards and outwards. The skull-cap was sawn off and the brain removed, and the fracture was then seen to extend from the vault of the cranium into the posterior fossa, passing from above downwards and inwards across the left inferior occipital fossa; within an inch of the foramen magnum it divided into two branched fractures, which extended into the foramen, and cut off a wedge-shaped piece of bone, the sides of which were bounded by the two lines of fracture, and the base formed by the free margin of the foramen magnum. This piece of bone was removed by simply dividing the subjacent soft tissues. On the right side of the foramen magnum, extending from its margin, was another linear fracture, which passed directly outwards for a distance of three quarters of an inch. A third fracture extended from the anterior margin of the foramen along the basilar processes of the sphenoid and occipital bones as far as the sella turcica. The surface of the brain was much congested, and the superficial vessels were distended with blood. On the right anterior cerebral lobe there was a flattened layer of dark-coloured coagulated blood, and this reached forwards and downwards to the under surface of the brain. Here the cerebral tissue was found extensively lacerated, and broken down into a soft mass made up of nerve-structures and coagulated blood. The other parts of the encephalon were unaffected. There was considerable effusion of blood at the base of the cranium, and the right lateral sinus seemed to have been ruptured near the posterior foramen. There were no signs of fracture in the middle and anterior fossæ. The lungs were crepitant over the lower lobes, and the surfaces of both organs presented a healthy appearance. On section, an immense quantity of brown frothy mucus exuded. At the apices of both lungs were observed large claret-coloured patches of congestion. The stomach was empty, with the exception of some thick, tenacious, and bile-stained mucus. Mucous membrane much congested over the whole of its extent. Liver of a dark-brown colour; the veins were filled with dark fluid blood. The remaining viscera, both of thorax and abdomen, were healthy.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JAN. 28TH, 1868.

MR. SAMUEL SOLLY, F.R.S., PRESIDENT, IN THE CHAIR.

ON A CASE OF VESICO-INTESTINAL FISTULA, FOR WHICH COLOTOMY WAS PERFORMED; WITH REMARKS.

BY THOS. BRYANT, F.R.C.S.,
ASSISTANT-SURGEON TO GUY'S HOSPITAL.

THE case was one which Mr. Bryant was asked to see by Dr. Habershon in Guy's Hospital in March, 1867. The patient was forty-nine years of age, married, and the father of ten children. Twenty-seven years previously he had been in the West Indies, where he had yellow fever and ague. He returned home after five years in good health, and remained well for twenty-one years, or till two years before his admission, when he was seized with a violent attack of purging, and the passage of a quantity of blood. From that time he had passed at uncertain intervals slime and blood in small quantities with his motions. Eight or nine months since he passed some ounces of blood from the bowel, and seven months since he began to have pain across the hypogastrium and about the anus. Six weeks after noticing this pain, he observed flatus and a small quantity of blood and feces pass with his urine. Of late he has suffered from difficulty in defecation,

and frequent desire; but the act has not been associated with pain. His motions have, however, never been well formed since his illness. He has never had syphilis.

When coming under observation, his abdomen was natural; no swelling or tumour could be detected in it. Urine was loaded with feculent deposit, and the act of micturition was most painful. On making a local examination of the rectum, extensive ulceration of the lower bowel was readily made out, and an apparent stricture high up. This ulceration was, however, free from all adventitious deposit.

As the case appeared to be one of simple ulceration of the bowel, with a fistulous communication with the bladder, colotomy was suggested and performed on April 27th, with the view of affording a free outlet for the intestinal contents above the seat of the disease, and the hope that the fistulous vesical communication would subsequently close, and the ulceration of the bowel heal; the certainty existing that relief to the patient's suffering would be afforded for a time, if not permanently secured. The operation was performed without difficulty, Mr. Bryant making an oblique incision from above downwards and forwards, its centre passing across the middle of the external border of the quadratus lumborum muscle; the object of this incision being to give plenty of room. Immediate relief was experienced by the patient. In two days the urine became clear, and was passed without pain.

An abscess subsequently formed in the perineum, which was opened by a deep incision; but this soon healed, and everything went on well till June 20th, when a change took place. Abdominal pains appeared in the region of the bladder, and some constitutional disturbance. On June 25th these symptoms were relieved by a sudden rush of feces into the bladder, and their passage with the urine. The feces were thin, and evidently from the small intestine. From that time the man's power gradually gave way, and he sank on August 27th, four months after colotomy had been performed, and two after the reappearance of feces in the urine.

After death it was discovered that the bladder, large intestine, and small intestine communicated with an abscess at the base of the bladder, and that all signs of ulceration of the intestine had disappeared, with the exception of the fistulous opening into the abscess. The left kidney was completely disorganised, and was full of thick greenish pus, as were the ureter and bladder.

Mr. Bryant, in his remarks on the case, said it would be read with interest by those who had studied Mr. Holmes's paper in the last volume of the Society's "Transactions;" for it tended to support the conclusions which Mr. Holmes had drawn from the consideration of his own and other cases. It supported the conclusion "that ulcerated openings sometimes take place between the bladder and either the large or small intestine, many of which have no connexion with previous stricture of the gut, still less with disease; that in those cases in which the feces discharged into the bladder came from the lower gut, and are consequently more solid, great suffering is produced;" and "that in such cases as are not dependent on malignant disease, colotomy, by diverting the feces from the fistulous channel, may enable the latter to close, and thus relieve the patient's sufferings, and restore him to a condition of health and of comparative comfort." For in Mr. Bryant's case all these points were well supported: relief to the patient's sufferings was afforded, and the healing of the ulceration in the bowel followed the operation. Mr. Bryant closed his paper by making some remarks on the value of the oblique incision over Amussat's transverse and the vertical of other surgeons. He believed it gave more room for manipulation in cases in which there is a strong probability the colon is empty, and may have to be looked for towards the pelvic brim; it takes the line of the nerves and vessels which pass from the lumbar region; it follows the ordinary integumental fold of a patient when assuming the recumbent position, and possesses all the advantages of any other line of incision.

The PRESIDENT thanked Mr. Bryant for bringing this operation again before the notice of the profession. It had been too long neglected; in itself it was neither dangerous nor difficult. He thought that the oblique incision suggested by Mr. Bryant added much to the value of his paper. The great mistake in these cases was putting off the operation too long.

Dr. HABERSHON took the opportunity of correcting a slight mistake in Mr. Bryant's paper as to the condition of the man's lungs: there was in reality slight flattening and imperfect resonance at their apices. He could bear testimony to the great amount of relief afforded the patient by this operation.

Mr. MOORE said that he did not rise to speak of the operation, which was now proved to be slight and satisfactory, but