paired as the result of the destructive changes which have taken place in it. The early recognition of the gravity of the joint complication, and its prompt treatment by some such plan as that adopted by Dr. Caiger in his case, form most important elements in the prevention of disorganisation of the joint and the restoration of its full usefulness. By means of early and sufficient incisions, the use of antiseptics, and rest of the limb, with appropriate general treatment and good nursing, we are able to record successes in the treatment of suppurating joints, even when of this infective nature, which would not have been considered possible a few years ago. Our readers are acquainted with the destructive arthritis which only too frequently supervenes in pyæmia, whether acute or chronic, when the joint has not been incised early, or the treatment for some reason has failed to arrest the local condition. The risk to limb is not only much increased, but from the prolonged suppuration the patient's chances of recovery are greatly diminished. The danger is not from too early incision of a joint, when done with due precaution; it is from leaving it distended with purulent fluid until the inflammation has extended to the ligaments and other structures which enter into its formation.

F. H.—, aged eight, was admitted on Dec. 26th, 1890, with severe scarlatina. The temperature instead of falling to the normal at the end of the first week remained on Dec. 31st at 101.8°. The rash was almost hæmorrhagic, the fauces much ulcerated, and there was offensive rhinorrhœa. The glands at the angle of the jaw and under the sterno-mastoid became much swollen, hard, and tender, with extensive infiltration of brawny character in the cellular tissue around. Pulse 144. Patient very restless.

Jan. 4th, 1891.—The swelling was much increased, giving rise to the appearance known as "bull neck," the temperature remaining between 102° and 103°. Chloroform was administered, and free incisions were made into both sides of the neck. The superficial portion of the swelling was hard and glistening on section, and yielded a thin ichorous discharge; pus was found deep down in the neck, and drainage-tubes were inserted.

8th.—The swelling had increased. Temperature 102.2°. Under chloroform more incisions were made on the left side. The rash remained dark and staining.

9th.—Some relief had been obtained. Temperature 100° to 101.4°.

18th.—Has remained much the same since the last note. Temperature varying from 100° to 103.4°. To-day there is more swelling on the left side. Temperature 102°. Under chloroform a fresh collection of pus was found deep down in the left side of the neck; this was opened and a tube inserted. Strength fairly maintained with careful nursing. Taking champagne and essence of beef well.

20th.—Temperature yesterday 101°; to-day 103.2°. Pain and friction heard in the left flank. The urine contains one-tenth albumen.

25th.—Temperature 105°. Vomited. Well-marked pleuropneumonia of left lower lobe. Pulse 160; albumen one-sixth. Neck discharging freely; swelling rather less.

31st.—The condition during the last few days has been most critical. Temperature, which has remained between 103° and 104°, fell in the night to 100.4° (sixth day of the pneumonia). Tenderness was complained of in the left elbow yesterday; to-day the joint is hot, tense, tender, and fluctuating. Chloroform administered, and a drainage-tube put through the joint, which, after the pus had been evacuated, was irrigated with 1 in 20 carbolic acid solution for some time. Strips of lint soaked in carbolic lotion were tightly applied round the joint, outside of which were placed several layers of sublimate wool impregnated with iodoform. The whole was enveloped in a firm elastic bandage, which kept up considerable pressure on the joint. The arm was lightly bandaged on to a paste-board splint, and the dressing changed every four hours.

Feb. 1st.—No pain in the elbow. Only a heavy trace of albumen. Temperature 98.8°.

3rd.—Temperature has risen to 100°. Dulness and loss of vocal fremitus over lower two-thirds of left lung posteriorly. Heart displaced outwards. Respiration over 50. Paracentesis thoracis; three pints of sero-pus removed; relief.

6th.—Tube removed from elbow-joint. The same treatment by elastic pressure, exerted on the joint, enveloped in the antiseptic absorbent dressing, now changed night and morning, as the discharge is but slight.

9th.—Temperature has been variable. Breathing again becoming embarrassed. Right pleura again aspirated. One pint of pus removed. There is now practically no discharge from the elbow-joint, which, except for two small skin wounds, is healed. The same treatment continued.

16th.—Temperature has varied between 98° and 102°. Right pleura again filling. Under chloroform the empyema was opened, an inch and a half of the tenth rib resected, and a double drain inserted. About two pints of pus were evacuated, the cavity afterwards being syringed out with 1 in 60 carbolic acid lotion.

17th.—Has stood the operation well. Temperature 98°. Right elbow now quite sound. Splint discontinued, though elastic pressure maintained.

20th.—The empyema not draining properly. Tubes were temporarily removed, and about a pound of solid coagulated lymph evacuated by coughing. Evening temperature normal.

Since this date recovery has been rapid. The tube was finally removed from the chest wall on March 27th. On the 30th he was allowed to get up. The lung has apparently quite recovered, and the elbow-joint is as sound as its fellow, extension and flexion being in all respects complete. No adhesions seem to have formed within the joint, slight movements being allowed since Feb. 17th, when the splint was left off. This was eighteen days from the time of laying open the joint.

In connexion with this case it is interesting to refer to another, in which, though the child subsequently died, a pyæmic joint was treated by the above method with equal success.

L. D.—, aged one and a half, admitted on July 2nd, 1890. Still desquamating after an attack of scarlatina five weeks previously. The right elbow-joint on admission was tense, fluctuating, and acutely tender. The joint was at once opened, the pus evacuated, and the cavity thoroughly irrigated with 1 in 20 carbolic acid, and a drainage-tube laid through the joint. On the following day the temperature was normal. On July 7th the tube was removed and elastic pressure maintained by means of a bandage firmly applied over a strip dressing of carbolic acid surrounded with alembroth wool sprinkled with iodoform. On the 15th, with the exception of two small points in the skin, the wounds were healed. In this child seven other collections of pus, mainly in the intermuscular planes, were treated in the same way by incision, evacuation, antiseptic irrigation, and elastic pressure. In no case did the pus re-collect.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF FÆCAL FISTULA; ABDOMINAL SECTION;
OPENING IN BOWEL SUTURED; RECOVERY.

(Under the care of Dr. ARNISON.)

OF the various forms of hernia met with in the groin, that known as "lateral enterocoele," "Littre's" or "Richter's hernia" is the most fatal, on account of the frequent absence of symptoms on which reliance is placed in the diagnosis of strangulated intestine. Of the cases, fifty-three in number, collected by Mr. Treves, about one-third presented the symptoms of ordinary strangulated hernia. Three of those remaining had persistent diarrhœa during the progress of the case; in others flatus and fæces were passed for from one to three days after the commencement of the strangulation. The vomiting was generally less frequent and severe than usual, whilst in only six did it become feculent. In very few was there distension of the abdomen, and in several the bowels acted after aperients. The operation of closing the opening in the bowel (usually the ileum in these cases) was less formidable than when undertaken for fæcal fistula, usually resulting from gangrene of strangulated intestine. From the nature of the protrusion it was not necessary to resect the gut before the sutures were inserted; the operation therefore took a shorter time to perform, and the subsequent risk of leakage was much lessened. For the notes of the case we are indebted to Dr. Thomas Beattie, acting house surgeon.

S. B.—, female, aged fifty, a charwoman, was admitted into the above institution on Sept. 15th, 1890, complaining of pain in the lower part of her abdomen and also of two discharging sinuses in the right groin. Four years and a half ago, when lifting a heavy weight, the patient was

seized with pain in the lower part of the right side of the abdomen, and a "lump" the size of a walnut suddenly appeared in her right groin. This swelling remained, becoming larger after doing heavy work, and diminishing in size on resting, but was sometimes very painful. She at this time had no vomiting or constipation, and never wore any truss or other appliance. About three months before admission "inflammation" set in about the swelling, accompanied by great pain and redness. The pain extended across the lower part of the abdomen; her abdomen was swollen. She had complete constipation, but had never any vomiting. It was at this time that she first saw a medical man. Three weeks after the onset of this "inflammation," an abscess pointed over the swelling; the abscess burst, and a large quantity of dark-reddish, ill smelling material was discharged. Her bowels were not moved until about ten days after the abscess burst. Two weeks before admission some dark, pulpy, bruised-plum-like substance came away, since which occurrence the discharge has considerably diminished. When admitted there was a sinus over the right external abdominal ring; and lower down towards the right labium, in the fold of the groin, on the same side, there was another sinus. These were found to communicate with one another, and a probe could be passed through the lower opening, apparently into the abdominal cavity. The tissues between these sinuses were red and indurated, and there was some pain on handling; pain was experienced also on pressure above Poupart's ligament on the right side. There was a small amount of brownish-coloured discharge from the sinuses, but it had no marked faecal odour; the bowels were regularly moved per anum.

Oct. 6th.—A director was passed from the orifice of one sinus to that of the other, and the intervening tissues slit up. Faecal matter passed freely from the wound soon after the incision.

Nov. 24th.—The motions as passed through the fistula are thin and by no means formed, they have a very faint faecal odour, the continuous escape of thin faeces from the sinus has so irritated the surrounding skin that it is severely excoriated and causes considerable pain. From the appearance of the discharge the fistula was believed to communicate with an opening in the small intestine.

Dec. 2nd.—The patient was put under chloroform, and, the parts having been carefully shaved and cleaned, an incision was made through the abdominal walls from a point about 4 in. vertically above the sinus, extending through and laying open the sinus, to which a coil of small intestine, having an opening in it about $1\frac{1}{4}$ in. in length and $\frac{1}{2}$ in. broad, was found to be adherent. The long diameter of the orifice was in the transverse diameter of the gut. Both the parietal peritoneum and that covering the affected coil of intestine were thickened. The adhesions between the abdominal walls and the intestine were now broken down, and the bowel immediately above the opening was clamped with a thin rubber tube, and the wound in the intestine closed by means of Lembert's sutures, thin silk being used. The bowel was returned into the abdomen, the track of the old sinus carefully scraped with a sharp spoon, and the peritoneal cavity washed out with perchloride of mercury lotion (1 in 10,000). A Keith's glass drainage-tube was then passed down into Douglas's pouch, and brought out of the upper angle of the wound; the parietal peritoneum was sutured with interrupted catgut sutures; a medium-sized indiarubber drainage-tube was put in, superficial to the peritoneum, and brought out of the lower angle of the wound; the superficial structures were united by interrupted catgut sutures, and the wound dressed antiseptically. The patient was then put to bed, with the right leg raised upon a double inclined plane. The urine was drawn off with a catheter periodically. One grain of opium was administered immediately after the operation, repeated every six hours during the first day, and from that time gradually diminished. The patient was given nothing but ice to suck for the first thirty hours, and after that time a little soda-and-milk and nutrient suppositories; the diet was slowly increased in quantity, beef-tea, fish, tea, and toast being gradually added until ordinary diet was reached. Flatus was passed per anum from the second day; the temperature continued normal, and the patient made an uninterrupted recovery.

5th.—Dressing removed. About one ounce of blood-stained fluid was drawn out of Douglas's pouch through Keith's drainage-tube, and Douglas's pouch was washed out

with dilute Condyl's fluid until the fluid returned perfectly clear. Both the Keith's tube and the superficial drain were removed and the wound again dressed antiseptically.

11th.—Soap-and-water enema administered, and bowels moved for the first time since operation. On the following day bowels again moved. Enemata were again given on Dec. 17th and 20th, the bowels not having been moved in the intervals between these dates.

25th.—Patient allowed to be up for an hour. Bowels twice moved without enemata. On the following day she was up for six hours, and the bowels were again moved twice. From this date up daily.

Jan. 3rd, 1891.—Patient discharged; wound quite healed; bowels regular.

Remarks.—The above history, together with the condition of the parts revealed by the operation, leaves little doubt that the case was one of Littre's hernia. And we are justified in assuming that the strangulation took place at the time when the patient was attacked with the so-called "inflammation." An unusual circumstance, however, was the absence of vomiting, and this no doubt led the medical man who saw her outside the hospital to look upon the case as one of perityphlitis, and treat it as such. The case evidently progressed naturally towards a spontaneous cure, the portion of strangulated bowel becoming gangrenous, a faecal abscess, and eventually a faecal fistula resulting.

TEWKESBURY HOSPITAL.

A CASE OF COMPOUND DEPRESSED FRACTURE OVER THE RIGHT PARIETAL AND FRONTAL BONES;
TREPHINING; RECOVERY.

(Under the care of Mr. DEVEREUX.)

WE have not infrequently of late published notes of cases of compound comminuted fractures of the skull in which trephining was performed; and although in the present day the results with the methods of treatment employed are nearly always good, these cases generally present some points of interest. We are also somewhat apt to forget that the percentage of deaths after similar injuries is high if we take the record for a period of, say, twenty years, probably not much less than 35 per cent. in hospital practice. In this patient the period of unconsciousness was unusually prolonged for a case of this description.

William S—, aged fourteen, was admitted to the hospital on the afternoon of Jan. 12th, 1891, with the history of having been kicked on the head by a cart-horse. On admission the patient was in a condition of severe collapse and was quite unconscious. The surface of the body was cold, pulse small and very weak. Movement on both sides of the body was good, but he kept on moving the left arm and leg wildly about, and there was marked twitching on the left side. Grinding of the teeth was very marked. When not disturbed he lay curled up, with the knees and thighs flexed.

On examination a wound was found very much lacerated, and extending for about three inches and a half over the anterior and lateral part of the right parietal bone, and over the superior part of the frontal bone. On digital examination an extensive depressed fracture was felt. He was anaesthetised, and the wound thoroughly irrigated with warm perchloride of mercury lotion. On further examination it was found that the fracture was Y-shaped. Two limbs were situated on the parietal bone, and the portion of bone between them was much depressed. The third limb ran forwards over the frontal bone to within half an inch of the right superior orbital margin. From this limb, near its junction with the other two, there was a fourth fracture running vertically downwards. The outer table of the skull, above the fracture, was slightly comminuted. A large-sized trephine was applied over the meeting point of the fractures and a circle of bone removed. The depressed bone was then elevated and the comminuted portions of the outer table removed. The wound was irrigated and stitched up with silk, a medium-sized drainage-tube being passed from front to back. The wound was then dressed with iodoform, protective, and pink gauze. He had a fairly good night though somewhat restless at times, and occasional twitchings on left side. His temperature was 102.2°.

Jan. 13th.—The next morning he was still unconscious,