of potassium with bark three times a day. The ulceration was thoroughly cleaned by poultices, and then dressed with an ointment composed of a drachm of unguentum hydrargyri nitratiss with five drachms of zinc ointment. Rapid improvement took place, and in three weeks the sore had quite healed, leaving a respectable looking ear, although, of course, there was much loss of tissue. During the treatment, the external meatus was kept open with pieces of lint; and when he left the hospital, although the external meatus was very small, yet the hearing was good.

This case illustrates how a local disease in a patient with syphilitic taint may resist all ordinary treatment until the specific nature of the case is recognised, and shows how soon such a case is relieved when suitable remedies are employed. This man might have been saved the loss of part of his ear, and also a dangerous illness, if the syphilitic features of the case had been diagnosed at an earlier period.

CASE III. Perforation of the Membrana Tympani, becoming permanent in consequence of delay in treatment.—A lady had suffered from a constant discharge from the right ear, with deafness, for several months. She was sent to me by Dr. Pollock, whom she had consulted for her general health, before which occasion she had not thought the ear-symptoms of sufficient consequence to require attention. I found a large perforation of the membrana tympani. By treatment with astringent lotions, such as sulphate of copper (half a grain to the ounce), and keeping the tympanum well washed out in the ordinary way, this patient gradually lost the discharge, and her hearing-distance improved from one inch to six, but the perforation remained. I believe that if she had been treated earlier, the opening might have been healed, and her hearing perfectly restored. The following case is confirmatory of this opinion.

CASE IV. Perforation of Membrana Tympani.—Mr. D. consulted me in January 1877. He was sent by Mr. Maunders. Seven days before, after a violent fit of sneezing, he found himself deaf in the right ear. He could only hear the watch when in contact with the ear. I easily distinguished a large perforation in the membrana tympani. The surrounding mucous membrane was in an unhealthy condition. I therefore prescribed a lotion of sulphate of zinc and carbolic acid (five grains of each to one ounce of water), to be used four times a day. In a few days, the condition of the mucous membrane had improved, so a solution of nitrate of silver (half a drachm to one ounce) was carefully applied two or three times a week to the perforation by means of a probe covered with cotton-wool. In a few weeks the aperture had closed, all signs of injury had disappeared and the hearing was quite restored. This patient was kind enough to call upon me three months afterwards, during which time he had been exposed to considerable changes of climate (travelling in Egypt), to let me know that the cure had been permanent.

A CASE OF FAT-EMBOLISM RESULTING FROM RUPTURE OF A FATTY LIVER.

By D. J. HAMILTON, F.R.C.S.Ed.,
Demonstrator of Pathology, Edinburgh University.

THE following case may be interesting to the readers of the BRITISH MEDICAL JOURNAL, from the fact that, so far as I am aware, there is no other record of a similar lesion in English literature, although the condition is very generally recognised by Continental pathologists. It is also particularly interesting, on account of the unusual situation from which the oil was derived which acted as the embolus.

The patient from whom the organs were taken was a lad about fourteen years of age, a native of Germany, and a sailor. While aloft, he slipped his footing and fell a considerable distance on to the ship's deck, alighting, from all accounts, on his right side. Although stunned with the fall, he soon recovered sufficiently to walk about the deck. In an hour or two afterwards, however, he became very much distressed; his breathing became embarrassed, coma ensued, and he died a few hours after the injury. At the *post mortem* examination, the liver was found to have sustained a few small ruptures, from which a little blood had flowed, but only a comparatively small quantity. The liver itself, however, was *peculiarly fatty*, and, for a lad of his age, unusually so; whereas the other organs seemed perfectly normal, so that the lung and kidney were retained as specimens of healthy organs, and were hardened in chromic acid for microscopic examination. The liver was rejected as a normal organ, on account of its being so fatty.

In due time, sections were made of the lung and kidney, and, in order to bring out their outlines more prominently, a half per cent. solution of perosmic acid was employed as a staining reagent. The

most extraordinary appearance was revealed by this means in the lung. The whole of the middle and smallest sized branches of the pulmonary artery were found to be plugged with oil, which now had a black colour, owing to the action of the perosmic acid.

Even the minutest capillaries, in many cases, were completely choked up with a large embolus composed of oil. The oil was generally in one large elongated mass, occupying the lumen of the vessel for a considerable distance, or it was in drops of various sizes closely aggregated together. The vessels seemed in great part empty, but, in other respects, the lung was perfectly normal. Similar embolisms were detected in the kidney, but only in very small number. The other organs were not retained, and consequently not examined.

Fat-embolism is a pathological lesion of the greatest importance, and has been described within the last few years more especially by Zenker, Wagner, and Busch. It generally happens that the subject of it has sustained a fracture of bone, or some operation has been performed necessitating the opening of the medullary cavity of a bone. The oil which so escapes into the surrounding parts becomes absorbed by the neighbouring blood-vessels and is carried to the right side of the heart, and subsequently into the lung. Here it gives rise to the most complete capillary embolism, entirely precluding the passage of the blood through the organ, the patient accordingly dying from gradual carbonic acid poisoning.

I am not aware that any case similar to the present has been recorded; but, on a little reflection, it can be easily seen that the liver might be an extremely fertile source of fat-embolism in certain diseased conditions. Those cases of death in a few hours after a simple fracture of bone or operation on bone must be familiar to every surgeon, but, up till the time that this very important discovery was made, were totally unaccounted for. No *post mortem* appearances worthy of note are found on naked eye examination, and the patient is generally said to have died from "shock", this term being thought quite sufficient to explain all deaths of this kind.

A case recorded by Czerny, in the *Berliner Klinische Wochenschrift* for 1875, Nos. 44 and 45, is extremely instructive. The patient, a mason, had sustained a simple fracture of the thigh, and died next day with symptoms of coma. There was great oedema of the lungs, with cyanosis, and microscopic examination showed the capillaries of the lung to be filled with clear fluid fat. Small fat-emboli were also seen in the cerebral vessels. I remember myself having seen, a few years since, a perfectly parallel case. The patient, a perfectly healthy young man, was brought into hospital suffering from a simple fracture of the thigh, and apparently was going on quite well until a few hours after admission, when he gradually became comatose and died next day, totally unconscious, within twenty-four hours after the injury. At the *post mortem* examination, absolutely nothing was found to account for death, and he also was supposed to have died from "shock". I have little difficulty in believing that this was likewise an instance of "fat-embolism".

LIGATURE OF LEFT EXTERNAL ILIAC ARTERY FOR FEMORAL ANEURISM: RECOVERY.

By J. FLEMING, M.D., F.R.C.S.,
Surgeon-Major Army Medical Department, Netley.

J. McQ., 1st battalion 25th Regiment, aged 28, and of nearly six months' service, was admitted from Shorncliffe to Netley Hospital on May 26th, for a large aneurism of the left femoral artery immediately below Poupart's ligament.

On admission, he appeared very anxious and irritable, as he was suffering great pain. He stated that previously to his enlistment (December 1876) he was a sailor, and that he contracted primary syphilis in January 1865, which was followed by a suppurating bubo in the right groin. He, however, is a healthy-looking man, is married, and has had seven healthy children.

He gave the following account of his present affection. About the end of February 1877, whilst "doubling" in the barrack-square at Shorncliffe, he felt a prick like that from a pin in the upper part of the left thigh. No farther notice was taken of it until the end of March, when, in the gymnasium, vaulting the "horse", he suddenly felt a pain in the left groin, and, on applying his hand, detected a pulsating tumour about the size of a walnut. He was treated at hospital for some time; but the tumour increased in size, and he was attacked with pain in the knee and thigh, the latter becoming much swollen. He stated that on April 15th pressure was applied above the tumour, and continued interruptedly for many weeks, causing him

great suffering; but without any benefit. On arrival here, an examination showed the tumour to extend downwards from Poupart's ligament for three inches and a quarter, and transversely for three inches and three-quarters, the outer margin being in a line with the anterior superior iliac spine. The tumour was pulsating very strongly, and the skin covering it smooth; and at the most prominent part a circular pink spot, painful on pressure, about the size of a threepenny-piece, was observed, while the lymphatics in the vicinity of the aneurism were enlarged and tender. The circumference of the limbs at the seat of the aneurism differed only by one inch; that of the right being 19½, and of the left 20½ inches. On manipulating the tumour, it conveyed the sensation as if some coagulation had taken place; and it was therefore thought advisable to again try the effects of pressure above the tumour on the external iliac, pressure below being impracticable.

The limb having been wrapped in cotton-wool, Read's compressor (3rd series) was applied over the external iliac on June 4th, and continued interruptedly until the 22nd, the pad being well covered with French chalk, and shifted as the skin became tender. The following were the dates and periods during which pressure was employed. June 4th, 8 hours; 5th, 6 hours; 6th, 4 hours; 8th, 3 hours; 9th, 3 hours; 10th, 2 hours; 11th, 2 hours; 12th, 2 hours; 14th, 7 hours; 21st, 1 hour; 22nd, 50 minutes; total, 38 hours 50 minutes.

On June 14th, the skin over the course of the external iliac became so tender that pressure had to be discontinued; while the pain from the aneurism necessitated the administration of opium and hypodermic injections to procure sleep.

About this period, I observed in the medical journals an account of some cases of popliteal aneurism having been cured with the aid of Esmarch's bandage; and it was resolved to give it a trial. It was applied on June 21st and 22nd for one hour and fifty minutes respectively, the patient being for the time under the influence of chloroform, and the bandage applied in the manner recommended, Read's tourniquet having been placed on the iliac; but, though at the end of this period the strength of the pulsation appeared less and the tumour felt harder, there was no permanent good result, rather the contrary, as the patient complained of increased pain along the course of the femoral artery as well as in the knee and ankle.

The dimensions of the aneurism on June 30th were—transverse 4½, and vertical 3¾ inches; thus showing a considerable increase since the 4th, almost an inch in its transverse diameter. As the means adopted for inducing coagulation in the sac were unsuccessful, and as the condition of the patient was rather critical, it was decided, in consultation with Professor Longmore, to apply a ligature on the external iliac.

The patient having been prepared, the bowels freely opened, etc., the operation was performed on July 9th, under the influence of ether, and in the usual manner, by a curved incision above Poupart's ligament. There was some difficulty in reaching the vessel and avoiding injury to the peritoneum, as it was found to be closely adherent to the transversalis fascia, which was echymosed in places, the result, no doubt, of long-continued pressure from the artery-compressor in that situation. The artery having been found healthy, and pressure on it entirely controlling the flow of blood in the sac, a silken ligature was applied at the middle part of its course. The upper part of the wound was brought together by a silver suture, the lower left open with the two ends of the ligature protruding, and a pad of antiseptic gauze placed over it to absorb the discharges. The limb was then wrapped in cotton-wool, elevated a little, slightly flexed and everted, thus placing it in an easy position supported by pillows, and thirty minims of Battley's solution of opium were given.

He had a good night's rest, and expressed himself as feeling very comfortable next morning, the pain in the knee and thigh having very much diminished since the operation. The case progressed favourably without a bad symptom and without a rise in temperature beyond normal, except on one occasion, when it rose about 1.5 deg., but which soon regained its normal condition on the bowels being freely evacuated. At that time, some deep-seated pain was complained of in the groin, but that disappeared very soon, and was no doubt owing to the same cause.

The ligature came away on September 6th, fifty-eight days after the operation; and the length of time it took in doing so was probably owing to the wound uniting deeply between the loop of the ligature, in front of the vessel, which may have enclosed some of the tissues.

The wound has now quite healed, leaving a thin line of cicatricial tissue in the skin, and there is no return of pulsation in the sac, which appears to have become hard and small and to be undergoing absorption. There is very little difference now in the size of the limbs, and the patient can walk about without any degree of discomfort.

CLINICAL MEMORANDA.

DEATH FROM A RECENT PLEURAL EFFUSION.

ALTHOUGH the operation of tapping the chest in all cases of considerable pleural effusion may now be looked upon as unquestionably the best established and most important step in modern therapeutical practice, the necessity for it is still advantageously illustrated by cases where fatal results might almost certainly have been avoided by its performance. Death being taught to be an uncommon event in acute unilateral pleurisy, many are not impressed by the lessons of the best of instructors, clinical experience, with the possibility of its occurrence, but, trusting to the cut-and-dried teaching of medicine so much in vogue, read of the fact as an exception to a rule, and straightway forget it. And, however conclusive the theoretical arguments for the necessity of chest-tapping may appear on paper, their practical influence in convincing the many is almost *nil* in comparison with such a case as the following.

A young married lady, after a fortnight's attack of subacute rheumatism, from which she had suffered twice before, was on the way to recovery, when she complained of a return of the joint-pains and some pain in the right side. Apparently, no further symptom pointing to any serious chest-mischief was noticed for some days, until, about three weeks from the beginning of her illness, the pain in the side became greater, and there was considerable shortness of breath. At this time, when I first saw her, she had all the typical signs of a large right pleural effusion, with rapid breathing and a somewhat anxious expression. The left lung was apparently healthy, with the exception of some scattered bronchial *râles* at the base, and the heart appeared normal in size, action, and position. It was decided to recommend tapping on the following day, unless there was a notable improvement in the symptoms. The next morning, the patient was clearly worse, the face being bluish, the breathing shallower, and the right side position alone possible. Immediate tapping was urgently advised, but refused by the patient, who died on the evening of that day.

Taking into account the recent nature of this almost uncomplicated effusion, and that the history of the patient, both family and personal, gave her a clean bill of health, with the exception of the attacks of rheumatism, it may fairly be argued, with as much certainty as can belong to any medical treatment of any disease, that tapping the chest would in this case have saved life and led to a good recovery.

HORATIO DONKIN, M.B.Oxon., Senior Assistant-Physician
to the Westminster Hospital, Physician to the East
London Children's Hospital.

A CASE OF APHASIA.

ON reading the instructive remarks on the Jurisprudence of Aphasia in the JOURNAL of the 15th instant, I am reminded of a case of aphasia of a well marked character which I saw in consultation in the past year, and the notes of which I have before me. The patient, who is now much improved in health, is a strong muscular man aged 55, and married. He was a foreman in a large engineering establishment, and had been working hard for some time before the attack in bringing out a patent invention. Seven or eight days before I saw him, he was seized in the night with paralysis of the right side and aphasia, without any symptoms of coma. A few days previous to this, he had a convulsive attack, apparently of an epileptiform character, with temporary loss of power of the right side; and, about eight weeks before this, he became very much depressed in spirits, complained of slight pain in the head, and began, for the first time, to manifest symptoms referable to the brain, as forgetfulness and misplacement of words, and calling persons and things by wrong names.

The patient's state, when I first saw him, was peculiar. He lay on his back in bed; could say "yes" or "no" distinctly, but these were the only intelligible words he could utter. He had some power in the right extremities, but not much. If the leg were bent for him, he could extend it, and, if it were pinched, he gave indications of pain. He seemed to be quite rational, and to understand everything that was said to him and of him. He attempted to answer questions and to explain his symptoms, but intelligible speech failed him, and he gave utterance to an unintelligible jargon intermingled with "yes" or "no", showing that these two words formed the extent of his vocabulary. His pulse was weak; he had no symptom of disease of the heart or lungs; his hearing was good, so was his deglutition. The pupils did not contract equally, and the left less than the right; and the tongue, when protruded, deviated to the right side.

On looking at cases of aphasia in a medico-legal point of view, it