showed thickly scattered ecchymoses. The pericardium contained three-quarters of a pint of clear fluid; there were some ecchymoses beneath the visceral layer of membrane. A considerable amount of clear effusion was found in both pleural cavities, and a patch of recent lymph at the left base. The liver was pale; spleen soft, but not enlarged; kidneys pale, showing points of ecchymosis here and there. The cancellous structure of the sternum and vertebræ seemed normal. The swelling of the thigh was due to œdema, apparently caused by venous thrombosis.

ADDENBROOKE'S HOSPITAL CAMBRIDGE.

OBSTRUCTION OF THE ABDOMINAL AORTA BY CLOT; GANGRENE OF LEGS; DEATH; POST-MORTEM EXAMINATION; REMARKS.

FOR the following notes we are indebted to Mr. A. M. Sheild, house-surgeon.

Mary F—, aged thirty-six, married, was admitted on Nov. 1st, 1882. She was a spare, pale, anxious-looking little woman, of a patient, quiet, disposition. Pulse 136, weak and irregular, temperature 100°, tongue red and glazed, bowels confined, urine acid, lithatic, no sugar, a little albumen. Action of heart irregular but no bruit to be heard. Skin covered with acid, sour-smelling sweat. Abdomen discoloured from the use of mustard plasters. The right foot and lower two-thirds of the leg were gangrenous. The skin had lost its elasticity, was dusky red and mottled with purple. Over the heel and on the sole of the foot were sanious black bullæ, the toes and anterior part of the dorsum of the foot were dry, shrunken, and the colour of tallow, contrasting with the black hue of the matrices of the nails. There was absolute loss of motion and sensation in the affected parts, which felt cold and dead. The parts near the upper limit of the gangrenous process were very painful, but there was no emphysematous crackling, or evidence of rapid advance of necrotic action. The left foot was cold and numb, the toes were a little dusky, and sensation was greatly impaired. She could move the leg, however, freely. No trace of a pulse could be felt in either femoral artery. The abdominal aorta pulsated violently to a little below the umbilicus; here all pulsation ceased. A slight bruit could be heard with the stethoscope, about two inches above the umbilicus, over the aorta, but there was no evident dilatation of the vessel. No bruit could be heard over the thoracic aorta. There was some abdominal tenderness, especially in the right iliac fossa and left hypochondriac region.

The following history was obtained:—The patient had rheumatic fever at the age of seventeen; ever since then has been "a martyr to the rheumatics." Has had four children and two miscarriages. The last child was born in May; she had an easy labour, and was soon well and about again. There was no history of syphilis. For the last fourteen days she has had to keep her bed with pains in the body and down the legs. On the morning of Oct. 29th she found her right foot very painful and numb; the left foot also suffered, but not to the same degree. Declares that at that time she could move both her limbs easily. From this date to the time of admission she has been getting steadily worse.—Nov. 2nd: She slept badly. Pulse 130; temperature 101°; other conditions much the same. Takes her nourishment well. Bowels freely open.—4th: The gangrene is extending slowly on the right side; it has now reached the knee. The left foot is now evidently gangrenous. Pulse 130; temperature 101°.—6th: Had a bad night; this morning is apathetic, and very drowsy. Pulse 140; temperature 104°. She died quietly at about 11 A.M.

Treatment.—This merely consisted in applying warmth to the affected limbs, supporting the strength by nutritious diet, and giving small doses of opium at night to alleviate the pain.

Necropsy, about twenty hours after death.—The heart and lungs were fairly normal. There was a slight fibrous thickening of the mitral valve, but no granulations or ante-mortem clot. On following down the aorta these curious appearances presented themselves: The arch of the aorta was to the touch and naked eye normal. On the posterior part of the thoracic aorta, just above the diaphragm, was a small, tongue-shaped, firm, pinkish, fibrinous clot. This was quite adherent to the wall of the vessel, which in this situation presented a wheal-like elevation, fibroid to the touch, and having the endothelial coat over it roughened

and altered. A little lower down was another small patch of disease; this was calcareous, and seemed of older date than the one first mentioned. The cœliac axis and its main branches were blocked by firm, adherent, fibrinous, somewhat stratified clot. This projected a little into the aorta, which here again presented a thickened opaque condition of its lining membrane, feeling in one spot gritty and calcareous. Just above its bifurcation the aortic tube was completely blocked by a firm clot, having its conical end of a gelatinous consistence and pink colour, and projecting some little way upwards. The clot quite filled both common iliac arteries; the internal iliac and external iliac vessels were also completely obstructed. The whole clot was stratified, and very adherent to the intima of the implicated vessels. Near the junction of the right common and internal iliac vessels it was most decolourised and firm, greyish-white, and adherent, as though this was the oldest part of it. The vessels of the brain seemed healthy. There was nothing worthy of note in stomach or intestines. The right kidney was small, and there was a slight puckered cicatrix on its surface, to which the capsule was adherent. The spleen was enlarged, its capsule thickened, and it presented some pale wedge-shaped patches near the surface, as though the result of old embolic processes. The liver was enlarged slightly; there was one small wedge-shaped patch of evidently old origin on its surface.

Remarks.—Complete obstruction of the abdominal aorta by clot is sufficiently interesting to justify such a case being fully recorded. A number of such cases may be found related in Sir James Simpson's works, dependent, however, upon the puerperal state. Cases are also recorded in Vol. xxiii. of the Transactions of the Pathological Society; one of them bears in its results a close resemblance to the one now related, the aortic tube being blocked close up to the origin of the renal vessels. The chief point of interest in the present case is the nature of the arterial degeneration, which evidently caused the blood to clot. It was unlike ordinary atheroma in the absence of distinct implication of the aortic arch, the age of the patient, and the evident mischief to the endothelial layer of the inner coat. The primary clot was, doubtless, the small one upon the wall of the thoracic aorta; here the endothelium being altered and abnormal, caused the blood, which must have had a preternatural tendency to fibrinous excess, to coagulate upon it. The cœliac axis seems next to have got plugged, and from the conical projecting end of the coagulum that filled it, another clot got washed away by the impact of the powerful stream of blood in the aorta into the right common iliac vessel. Here it lodged at the bifurcation of the common iliac artery into its external and internal divisions, completely obstructing it, and also causing thrombosis to take place, and so secondarily block both the left common iliac artery and the aorta itself. The oldest portion of clot below was certainly in the right iliac vessel, and the clinical history of severe abdominal pain, followed by sudden gangrene—first of the right, then of the left lower limb—would support the view above advanced. The origin of the clot and the primary seat of its arrival in the iliac vessels are very interesting and open to several explanations. It is also worthy of remark that but slight indications of mischief showed themselves in the great abdominal viscera, though the great artery, the cœliac axis, was quite firmly plugged.

BARROW HOSPITAL.

CASE OF COMPOUND FRACTURE OF SKULL WITHOUT HEAD SYMPTOMS.

(Under the care of Mr. WILLIAMS.)

FOR the following notes we are indebted to Mr. R. Heelis, house-surgeon.

Robert A—, aged fifteen, was admitted on Oct. 20th, 1882. Three hours before admission he was struck on the right forehead by a tipling truck, in rapid motion, and thrown some distance. He was insensible for about five minutes, and then got up and went on with his work. He applied to the hospital at midday as the wound seemed serious.

On admission there was a small oblique wound one inch above the upper and outer angle of the right orbit extending to the bone, which was bare for about half an inch beneath the lower edge of the wound. This bare bone was bounded above by a sharp, free edge of crescentic shape, which could be felt through the skin, its extremities being above and

beyond the ends of the external wound; the bone above this was depressed. The patient walked steadily and was quite sensible; the skin was warm and pupils equal and dilated. He was put to bed, and the wound syringed out with carbolic lotion, one in ten, and dressed with dry salicylic silk. The dressing was changed on the 22nd, 29th, and 31st. On the 29th the wound was scabbed over, and on the 31st only a small granulating sore was left, and he went out on that day. During this time he had no headache or delirium and slept well. His temperature on the first and second days was 99.2° and 99° , afterwards normal. The pulse was 84 on the same days and regular; afterwards it was less frequent.

When seen by Mr. Williams a few days ago the edge of bone could still be felt. He suffers from headache occasionally when at work.

CASHEL UNION HOSPITAL.

CASES OF THORACENTESIS.

(Under the care of Dr. LAFFAN.)

CASE 1.—M. D—, aged twenty-six years, a female servant, was admitted in April, 1880, with acute pleuritis on the right side, and bronchitis of the left. The right side of the thorax was three inches larger than the left. Pulse 120; respiration 60. On April 28th dyspnoea became urgent. Thoracentesis was performed, and fifty-six ounces of serum were withdrawn. The pulse at once fell to 80, and the respiration to 30. The notes state that on May 1st the pulse was 116, respiration 36, and the temperature 105.8° , and that the right lung, where previously no sounds were to be heard, was now like the left, the seat of universal râles. The patient ultimately became quite well.

CASE 2.—W. D—, aged five years, was seized with pleuritis of the left side on June 10th, 1882. He came under observation on August 12th, at which time the entire left side was dull, and the apex of the heart-beat between the fourth and fifth right ribs. The patient's general condition was at the lowest ebb. Paracentesis was performed on that day, and about twelve ounces of healthy pus were removed. A piece of lint was inserted into the wound, and removed from day to day to allow free exit for the discharge, and small doses of coca were given internally. A few days afterwards, on August 24th, the pleura was injected with a solution of tincture of iodine. The next day, and for some days afterwards, he was seized with cough and symptoms of extreme debility, which seemed connected with the infection. He, however, gradually improved; the bronchitis continued. A small purulent discharge persisted from the pleura, and coca, syrup of iron, and supporting treatment were administered till October 12th, when he expectorated per mouth for three successive days a large quantity of pus, similar to that which came from the side, after which all cough left him. The discharge from the pleura ceased, and he made more rapid strides towards health and strength.

On December 7th there was a mere moisture from the wound. His health was perfect, and the chest signs were normal. The wound was to be closed. The girth of the chest on the right side was 16 in., and on the left $15\frac{1}{2}$ in. This patient was reduced to the last stage of asthenia, and his recovery was something surprising, even having regard to the greater chance of patients of his age. The sudden and great expectoration appears to be due to perforation of the lung; no stethoscopic signs were detected, and the fact that this at least did no harm is in keeping with the records of similar occurrences.

CASE 3.—D. N—, a female aged twenty-three years, came under observation on July 10th last. Her illness dated from February 14th preceding. On admission the left side of the chest was completely dull. It was opened on the 11th between the sixth and seventh ribs; with the aid of the aspirator thirty ounces of serum were drawn off. She was able to move about in four days. On December 7th her state was as follows. The left side of the chest was normal on percussion in front, and slightly deficient in tone behind. The circumference was 16 in. on the right side, and $15\frac{1}{2}$ in. on the left. There was no signs of the presence of any fluid. The appetite, sleep, menses, and all other functions were normal.

CASE 4.—J. S—, aged twenty-five years, came under observation in 1880, for effusion in the left pleura. The dullness was universal, and the urgency of the symptoms called, as in the previous cases, for operation. The left

pleura was opened in the usual place, and about sixty ounces of serum were withdrawn by a small needle of the aspirator. Some fluid was again effused, but this was absorbed, and the patient recovered. Some of the patient's brothers had died of phthisis, but he continued well.

CASE 5.—T. D—, aged twenty-eight years, was first seen on the 1st of June, 1882. The entire left pleura was filled with fluid; the apex of the heart beat between fifth and sixth right ribs. There was a history of his having suffered for five years from the disease. He had been under the care of three physicians successively, who took the case for phthisis. The chest was opened with a large needle of the aspirator between the eighth and ninth ribs, and one inch to the left of axillary line. Three gallons of a serous-looking fluid were withdrawn. The patient made an uninterrupted recovery, and now pursues the active duties of a cattle-dealer, to which he has transferred his services from his former and less onerous post of land steward. It is intended to publish the case *in extenso* on account of many points of interest.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

The Period of Infectiveness of Scarlet Fever.

THE ordinary meeting of the Society was held on Jan. 26th, Dr. Andrew Clark, President, occupying the chair for the first time since his election. There was a numerous attendance, and the proceedings commenced by the delivery of an earnest, eloquent, and spirited address by the President, who, on the motion of Dr. Glover, seconded by Dr. Day, was formally thanked for his address and requested to have it published in the Transactions of the Society. The rest of the evening was occupied by a paper by Dr. Longhurst, which attempted to prove that scarlet fever was infective in the pre-eruptive stage, but not in the stage of desquamation. It was generally felt, however, that his facts were too few and inconclusive to warrant a deduction which, as more than one speaker emphatically pointed out, was a dangerous one to advance. An interesting case, believed by the exhibitor to be an early condition of osteitis deformans, and showing also the remarkable state described as "spondylitis deformans," was exhibited by Dr. Lediard of Carlisle. Cases of scleroderma were shown by Dr. S. West and Dr. Goodhart respectively. Mr. Shuter exhibited a patient upon whom he had performed subperiosteal amputation at the hip-joint.

Dr. LONGHURST read a paper on the Activity of the Infective Power of the Poison of Scarlet Fever during the Pre-eruptive Stage of the Disease. He said that in a short paper on the Infection of Scarlet Fever, in THE LANCET of July, 1877, he expressed a belief that the period of greatest activity of the fever poison was in the early stage of the disease. Extended observation has strengthened that belief, and it is borne out in the cases reported, which seem to encourage a line of investigation in connexion with the study of acute specific diseases advocated by the late Dr. Murchison in a paper on the Period of Incubation of Scarlet Fever, and the probability that they may be transmitted even during the stage of incubation. Case 1 supports such view, and forcibly demonstrates that the fever poison is not absorbed by, nor developed in, all persons with the same rapidity and activity, and that possibly even during the stage of incubation the poison may be passed on from one member of a family to another, the latest case having little, if any, direct relation to the first, but being due to the further development of the poison through fresh systems. Cases 2, 3, and 4 all point to the activity of the fever poison in the very earliest stage, whilst Case 4 is especially interesting as proving that the long isolation and confinement still enforced by some are not always necessary. It is most important that a belief in the activity of the infective power of the fever poison during the very earliest stage, possibly also during that of incubation, should be generally accepted; for then, instead of risking the spread of the disease by scattering at once the members of a family, forming new and fresh centres of infection, ought we not rather to be content with isolating the sufferer in his own house, or removal to the hospital, according to circumstances, and with rigidly adopting all sanitary precautions?