by squeezing the ball in the right hand. The left forefinger is then raised and the fluid issues from the bladder, while the right hand relaxes its pressure and allows the bulb to draw up a fresh supply of fluid. This process can be repeated as often as is desired, without trouble to the patient or disturbance of the catheter. In practice, I have found this simple apparatus prove of great service to patients suffering from atony of the bladder or prostatic disease, when washing out the bladder has been indicated. The brass nozzle is made by Messrs. Weiss and Son.

Wimpole-street, W.

A NOTE ON PREPUCE GRAFTING.

By CHAUNCY PUZEY,

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THE article by Mr. Clement Lucas, which appeared under the head of "Prepuce Grafting," in THE LANCET of Oct. 4th, reminds me of a case bearing upon this subject which was under my care about a year and a half ago in the Northern Hospital, Liverpool.

A sailor, about thirty-five years of age, sustained a severe crush of the soft parts of his left foot, owing to a spar falling upon it and rolling about on it during a heavy gale at sea. The injury was aggravated by want of attention and exposure to cold and wet for several days, so that when the ship arrived at Liverpool and the man was brought to hospital, the integuments of the foot, from the toes to the flexure of the ankle anteriorly, and as far as the os calcis on the plantar aspect, were sloughing, and soon came away, leaving a large granulating surface all round the foot (with the exception of that part occupied by the fifth metatarsal bone, which part had escaped injury, and was covered with sound skin) and from the bases of the toes to the lines before-mentioned, the sheaths of several of the extensor tendons being exposed on the dorsal surface of the foot, and a considerable portion of the plantar fascia having sloughed away. This looked a case which would take months in healing, and in which even then a tender foot, crippled by tight cicatrices, must result—a typical case for extensive skin grafting. Therefore, as soon as the wound was in a clean and favourable condition, I obtained the patient's sanction to the removal of as much skin as might be required from a part where there was plenty—namely, his scrotum. This having been cleansed by the continuous application of carbolic fomentations for a couple of days, I removed two folds of this skin, each about the size of a crown-piece, but oval rather than circular, having previously passed two or three long and thick catgut threads through the folds, near the line of section. One of these pieces was then spread out on the dorsal, the other on the plantar surface of the foot, the catgut being used for tying down the transplants and preventing their tendency to roll up. Carbolic dressings were used, but when they were removed after forty-eight hours, the transplants looked dark and sodden, their cuticle was separating, and the wound had a bad odour. Frequent cleansing, and gauze and oakum dressings, soon improved affairs, but the transplants looked as if they were softening down and would soon disappear. A boy having been found who required circumcision, his prepuce was divided into half a dozen pieces, and these were laid upon the wound in various places between the scrotal transplants and the healing edges of the sore. These preputial grafts adhered at once, and the condition of the sore rapidly improved; moreover, in the site of the scrotal transplants, which we thought had failed, new skin rapidly appeared, and in the course of a few weeks the whole of the large granulating surface was completely healed, partly by cicatrization, but to a great extent covered with healthy skin. Weeks instead of months had sufficed for the restoration of a perfectly useful though rather disfigured foot.

No doubt the prepuce affords much better material than the scrotum, and for large grafts it is difficult to imagine anything better than the prepuce of a healthy infant—thin, soft, elastic, free from fat, and thus readily adapted to any surface. Unfortunately, in these days of children's hospitals, the supply of material in general hospitals is somewhat limited, but in the case of a male patient, his own scrotum presents generally an abundant supply, though the material is not of so suitable a quality. As Mr. Lucas observes, the principal objection to preputial grafts is

purely sentimental; still this objection has no doubt hitherto stood in the way of utilising a material which, in these days of conservative surgery, is too valuable to be wasted.

Liverpool.

CASE OF SPORADIC TYPHUS, WITH HIGH TEMPERATURE, COMPLICATED WITH ULCERATIVE ENDOCARDITIS;

POST-MORTEM EXAMINATION.

By AUGUSTUS H. COOK, L.R.C.P., M.R.C.S.,
MEDICAL OFFICER TO THE HAMPSTEAD INFIRMARY.

FANNY W—, aged twenty-three, married, was admitted to the infirmary in the evening of April 26th of the present year, with the following history, ascertained from her husband. The illness commenced on Tuesday, April 22nd, four days before admission. She was perfectly well in the morning, and did her washing as usual; but before dinner she felt so weak that she had to lie down, and complained of feeling very ill. She vomited and retched from the time of the seizure till the end of the week, and complained of severe headache. Her skin was burning hot, and her feet very cold, "like ice." She refused all solid food. She was cheerful and perfectly sensible. During the whole time the pain in the head was very severe ("awful"). She bore the journey to the infirmary well, expressing a wish to go. When she was an infant all her family had typhus, at Wootten-under-Edge, Gloucestershire, her case being the worst; she had typhoid fever when older, and rheumatic fever severely at the age of twelve, but she did not know of any heart disease being left in consequence; she was otherwise strong and healthy. The patient was confined four months ago, natural labour; but has never been so strong since. Her father and mother are still living, aged forty-three and fifty respectively; both are strong and healthy. Two brothers died young ("of vaccination"); two brothers are still living, both healthy; three sisters, all healthy; her baby, aged four months, is healthy; no other illnesses known. She was in the habit of leaving the unwashed napkins under the bed in which she and her husband slept, for days together, and the smell was very bad at times, especially just before her illness, when the soiled napkins had lain beneath the bed for three or four days—so much so that her husband complained about it. On admission she stated that she had been ill for nearly a week, and that the doctor thought it was a bad cold. She did not appear very ill, but the temperature was 103.8° F.—27th: At about 6 A.M. the patient became unconscious, and when first seen by Dr. Paddle and myself at 11 A.M. she was in the same state. On shouting she opened her eyes, but showed no other sign of consciousness. Temperature 103.6°; pulse 120; pupils unequal, the left dilated. No signs of any rash, with the exception of a few light-brown stains about the flanks and abdomen. There was a little tenacious and frothy mucus streaked with blood, but careful examination failed to detect any sign of pneumonia. A soft blowing murmur replaced the first sound at the apex. The urine was drawn off by catheter.—28th: Temperature fallen to 102.8°; pulse 120. Patient very delirious, but able to converse with her husband a little. Bowels, which had been confined throughout, opened by enema. Beef-tea, milk, eggs, &c., taken freely. Incontinence of urine.—29th: Morning temperature, 104°; pulse 150. Prostration extreme; patient still delirious. Temperature at 6 P.M., 106°; 108° at 9 P.M. The patient died at 11.

Autopsy, forty hours after death (at which I was assisted by Dr. Paddle).—The body was fairly well nourished; no eruption, but marked lividity along the back; rigor mortis still present. A dark clot was found on the surface of the brain, over the posterior half of the left hemisphere, about four inches long by one and a half inches wide; it was quite superficial; the vein under the clot was empty. All the superficial veins were gorged with blood, and the membranes were congested but free from opacity, flakes of lymph, or any other signs of inflammation; there was little or no effusion into the subarachnoid space or ventricles. The brain, on section, was found to be greatly congested. There were hæmorrhages into the following parts—namely, (1) into the anterior and outer part of the right frontal lobe, about the size of a pea (the centre of this clot was of a yellowish colour); (2) in the posterior part of the same hemisphere

outside the optic thalamus, of rather larger size than the above; (3) in the left hemisphere on the outer side of the posterior cornu, beneath the seat of the superficial hæmorrhage, which probably came from this source. In the cerebellum a considerable hæmorrhage was found in the right lobe, where its substance was broken down; and a slight clot in the opposite lobe. In the pons and medulla the veins were gorged, but there were no hæmorrhages. The pericardium contained three or four ounces of slightly turbid serum, containing flakes of lymph. On the parietal surface there were numerous well-marked petechiæ, about the size of a pin's head; there were none on the visceral surface. The heart contained dark-coloured fluid blood on both sides, also soft, light-coloured clots extending into the pulmonary artery and the aorta. The mitral valve was thickened and beaded, and the posterior flap presented a fresh ulcer, thickened and raised, about the size of a pea; and about an inch from this a second smaller ulcer at the free margin of the valve. Loose vegetations were on the surface of both ulcers, which came away easily on washing. All the remaining valves were healthy. There was no hypertrophy or dilatation, but the heart substance was soft and friable. The lungs were greatly congested throughout, especially the bases and posterior part, presenting the appearance of the first stage of pneumonia. Over the apices and anterior free borders there were numerous small round petechiæ. The bronchial tubes were congested and full of dark frothy mucus. There were no cavities. The right lung weighed 24 oz., and the left 20 oz. The abdomen was retracted. On opening it the peritoneum was found healthy, and its cavity free from fluid or flakes of lymph. The liver weighed 46 oz.; it was pale, but superficial veins and capillaries were mapped out over certain areas from congestion, giving it a mottled appearance; there were no hæmorrhages into it, but it was very friable. The spleen was much increased in length, weighed 14½ oz., was black, and of semi-fluid consistence. The right kidney weighed 7 oz., pyramids deeply congested, cortex normal, the whole soft and friable; the left weighed 7½ oz., pyramids congested; three or four dark nodules were seen on its surface, which on section proved to be recent wedge-shaped infarcts, dark at the circumference, yellowish in the centre; also very friable. The uterus was of normal size and consistence, the lining membrane was congested and softened. The intestines, except the lower part of the colon and rectum, were found congested. There were three or four large dark-coloured extravasations beneath the peritoneal coat, one in the jejunum, two in the ileum, and one or more in the ascending and transverse colon; there were also one or two small infarcts on the surface of the colon. The mucous membrane was carefully examined throughout, and no signs of enlargement or ulceration of Peyer's patches, or solitary glands, could be found.

Remarks.—This case is of interest from the difficulty of the diagnosis during life, owing to the absence of the characteristic rash and the rapidly fatal result on the eighth day. The diagnosis was based upon the early prostration, delirium, and coma; and upon the course of the temperature, with the absence of diarrhoea, tympanites, signs of pneumonia, or other sufficient cause to account for the fever; and it was verified by the post-mortem examination, which presented all the appearances generally found in a case of typhus.

Denning-road, Hampstead, N.W.

ON THE TREATMENT OF A CASE OF ACUTE CATARRHAL INFLAMMATION OF THE MIDDLE EAR BY REMOVAL OF ACCUMULATED SECRETIONS FROM THE TYMPANUM THROUGH THE EUSTA- CHIAN TUBE.

BY SAMUEL SEXTON, M.D.,

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THE possibility of relieving the tension and consequent pain and discomfort due to the accumulation of secretions in the middle ear by means of suction applied to the outlet of the Eustachian tube in the pharynx has often occurred to other otologists as it has to myself, but the operation, I believe, has been hitherto regarded as impracticable. The

opportunity having been recently offered me to successfully demonstrate its practicability, and, it may be added, its simplicity, the case is reported with the hope that others may be induced to test a plan of treatment which promises more speedy relief, in certain cases at least, than is attainable by other methods. A single case, certainly, does not ordinarily afford sufficient experience from which conclusive deductions may be obtained in recommending a new departure in practice, but in the instance to be cited below the observations were confirmed by the patient himself, a person in every way capable of judging of the symptoms and sensations experienced. The case was that of my friend Prof. J. D. Bryant. He had become much run down by overwork, and, contracting a severe head cold, was taken with consecutive otitis media catarrhalis acuta on Jan. 29th, 1884. The two ears were affected in the beginning, and there was much tinnitus and autophonia, both of which symptoms increased on the 30th to such a degree that his lecture on that day was delivered with great discomfort. There was vertigo with nausea, occasional unsteadiness of gait, and very considerable impairment of hearing. The phenomenon of staggering was notable, the patient experiencing concussion of the brain and confusion of ideas from the sound of his own voice, as he himself stated, "the sound of my own voice was so confusing that coördination and locomotion were difficult." On the 31st inst. the trouble began to concentrate, as it seemed in the right ear, which was now the seat of so much pain that he came to consult me about it.

Appearance of the Ears.—The left membrana tympani was slightly hyperæmic about the short process of the malleus, but was otherwise free from inflammation. The right membrane had the general appearance of being intensely inflamed, but on close inspection the inflammation was found to be confined to the membrana flaccida for the most part; indeed, the posterior part of this structure was greatly distended, and was bulging out as though it would burst. The contiguous dermic layer lining the superior posterior wall of the canal was, for the distance of some lines, elevated and very red. The intumescence also extended somewhat downwards along the posterior margin of the membrana tympani, being sharply limited anteriorly at the malleus handle. The swollen membrana flaccida overhung the comparatively unaffected inferior segment of the membrana tympani, thus giving the appearance of much more general distension than actually existed. This case, it will thus be seen, belonged to a rather uncommon form of middle ear inflammation, since the region of the organ affected was the upper chamber of the tympanum, which lies back of the membrana flaccida and immediately beneath the tegmen tympani. The overhanging intumescence above alluded to, and entirely concealing the rest of the membrane in certain cases, is most puzzling to the observer when the true nature of the disease is not recognised, and it is in such cases that disappointment is liable to be experienced in consequence of the escape of air only when the membrana tympani is punctured, the pent-up secretions being confined to the upper chamber. On being asked by the discerning surgeon who was seeking relief if the confined secretions might not be drawn out through the Eustachian tube, it occurred to me that the operation could be successfully performed by means of the flexible Eustachian catheter¹ which I introduced some years ago. This catheter, it may be well to state here, is made of flexible rubber, but is sufficiently unyielding to retain its shape while in use. It has a soft, velvety finish, and its introduction in the adult creates so little discomfort that one which is one-fourth of an inch in diameter can generally be employed. This is readily introduced into the mouth of the Eustachian tube, and permits a large current of air to pass. I proceeded to introduce a catheter of the above-mentioned size through the inferior nasal passage, and after connecting it with a large metallic ear syringe by means of a stout piece of soft rubber tubing ten inches in length, suction was effectually established by using the syringe as in aspiration. It was worked by one hand whilst the other hand kept the catheter in place. By means of an otoscopic tube the suction in the affected ear could be plainly heard by myself with each pumping stroke of the piston, the action being yet more plainly manifest to the patient, who after one or two successful exhaustive efforts had been made exclaimed, "That does the work; the pain has gone." Suction was

¹ Vide Trans. Am. Otological Society, 1881. The catheters are made by Mr. Ford, of Caswell, Hazard, and Co.