cubital triangle—a most unfortunate accident having clearly happened here, of which a record promptly appears in the columns of THE LANCET.

Time rolls on, and a spectator of the duplex operation, possessed of an instrument such as he had seen employed, finds himself at midnight, in a lone house in the country, face to face with an alarming case of post-partum hæmorrhage. He has adopted the modes of treatment recognised as judicious for the condition before him. He has employed active hæmostatic agents, and finally that potent but highly dangerous styptic, perchloride of iron. His patient is blanched and collapsed to the last degree. Are not her bloodvessels so thoroughly drained of blood that there is not sufficient of that element circulating in the uterine walls to stimulate to *permanent* contraction its muscle fibres? Is not this the very case for transfusion? The accoucheur puts his apparatus in order (he may not have it with him, and be obliged to send home for it) and selects a blood-donor. He has little time or opportunity under the circumstances I have depicted to find an adolescent, healthy beyond a doubt; little time has he to eliminate the existence of syphilis or of other specific communicable diseases by a well-planned examination of the youth, nor to obtain a knowledge of his previous history and mode of life. The operation is commenced; the blood-donor faints; the friends of the patient, the necessarily improvised assistants to the accoucheur, faint also. The operation is abandoned, and it and he who proposed it fall into disrepute. But there may fortunately have been time to summon a skilled assistant. The veins both of blood-giver and recipient may have been dexterously opened, and transfusion commenced. Still, accidents may even now happen; a small coagulum may form within the apparatus, or a little air gain access through some contingency to the veins operated on.

The picture is carried far enough. Is the operation of immediate transfusion, as taught and elaborately performed in hospital practice, where there is every means of ensuring success, one of universal application? Is it one that can always be performed when most needed—under urgent circumstances and at a moment's notice, often in the night, at Land's End, John O'Groat's house, or Ratcliffe-highway, and by an unaided operator, with everything against him?

If the practitioner have not at his command, when circumstances indicate its employment, a transfusion-apparatus, what can he do? Imitating Treves, he may file down the bone nozzle of an aural syringe, and through this rude but efficient cannula administer an intra-venous injection.¹ No satisfaction can possibly be greater than, under compulsion, to have operated successfully in such a manner. But would it not be far better were some simple method known, which, being of ready application, and not requiring complex, expensive instruments, difficult to manipulate and otherwise objectionable, might be employed by every medical man in the kingdom with ease, expedition, and safety? This question forced itself upon me very strongly when, in the case I have recorded,² I administered, with the three-ounce metal transfusion-syringe of the London Hospital (as represented by Fig. 1), an intra-venous injection, the pro-

FIG. 1.

cedure being, in my estimation, fraught with the risk not merely of admitting air whilst detaching the body of the syringe from its nozzle by means of a screw, for the purpose of refilling the instrument, but also with the danger of injuring important structures adjacent to the vein selected for operation (in the case of the median basilic vein, the brachial artery) with the point of the nozzle; for the syringe being many times heavier than the nozzle it was impossible for me to hold the latter steadily during the proceeding. Fig. 2 illustrates an instrument which, to obviate the objections I have mentioned, has been made for me by Maw and Co., and has been briefly described in my paper of last week. It is essentially a syphon, con-

sisting of five feet of elastic tubing, one extremity terminating in a vulcanite bell-shaped opening guarded by a metallic grating, the other joining a silver stopcock, to which a cannula can be attached. A short distance from this extremity the continuity of the syphon is interrupted by a small glass tube, inserted for purposes of observation; a few inches higher still is an exhausting bulb, by which the air present in the instrument can be expelled prior to use. A semicircular canal of vulcanite protects the rubber tube where it passes over the edge of the vessel containing the solution for injection. The cannula is serpentine in form—following in this respect

FIG. 2.

Treves's pattern,—compressed a little laterally and embossed at the part where it should be grasped by the operator's fingers. It gradually tapers to a blunt extremity, at a distance of half an inch from which is an oval aperture for the transit of the vivifying fluid. This aperture can be closed by the pulp of the index finger whilst the point of the cannula is being inserted into the vein; as the finger is withdrawn the cannula is simultaneously pushed onwards; the possibility of the entrance of air into the vein, if this method be adopted with ordinary care, being certainly avoided. The cannula is grooved fifteen-sixteenths of an inch from its point, by which means it can be secured with a ligature and maintained *in situ* when fairly within the vein. Always mindful of the fact

FIG. 3.

that it must become the duty of every surgeon at some time or other to perform transfusion, like tracheotomy, entirely unassisted, or his patient must succumb. Fig. 3 represents an automatic retractor, which, being capable of almost instantaneous application, might often be very serviceable.

In conclusion, I beg leave to acknowledge many valuable suggestions I have received in reference to this syphon from Dr. Palfrey and Mr. Fenton-Jones, and to express the hope that by the substitution of simple for complicated methods of transfusion or intra-venous injection, every instrument devised for its performance being safer and surer in its mode of action than those which have preceded it, the operation will at length be elevated from the dazzling but delusive position it at present occupies to one of true utility to mankind.

NOTE ON THE OCCURRENCE OF CHOLERA-LIKE SYMPTOMS IN CASES OF URÆMIA.

By H. MALLINS, M.B., M.Ch.

THE perusal of the notes of a case of malignant cholera in THE LANCET of July 29th brought to the writer's recollection a case met with in India, in which many of the symptoms of cholera were induced by uræmic poisoning. The case was as follows:—

Ram Din, a grass-cutter of No. 2 Battery, Punjab Frontier Force, was admitted into the Battery Hospital, Edwardesabad, on the 20th of August, 1875, at twelve

¹ THE LANCET, 1877.

² Ibid., Sept. 16th, 1882, p. 436.

o'clock noon, in a state of complete unconsciousness, with severe vomiting and purging, the stools being of the rice-water character. It appears that he had been doing his work up till 9 A.M., and it was while cutting grass in the sun that he first fell ill. When seen the following morning (August 21st) his state was as follows:—Features pinched; surface quite cold to the touch. Tongue dry, with slight brown fur. Is now quite sensible, and able to get out of bed. Pulse 118, very weak; respiration 32; temperature 99.2°. Passed a little urine yesterday evening. On passing a catheter the bladder is found to be quite empty. Is still purged, the stools being of the consistence of whey, dirty light brown in colour, free from smell, with floating flocculi. Voice is now fairly strong.—7.30 P.M.: Surface still feels cold. Temperature 99.4°; pulse 120, very feeble. Abdomen tense and tympanitic. No urine in bladder. Has passed three stools since the morning, of thick consistence, faintly yellow colour, and slightly bilious odour.

August 22nd.—Lies in a drowsy state. Pulse 120; respiration 24; temperature 100.1°. Has passed four stools during the night, of distinctly yellow colour. Urine still suppressed. He gradually became comatose, and died at 6 P.M., after a slight convulsive attack.

Autopsy, half an hour after death.—The chief morbid appearances observed were: Firm pleural adhesions on both sides of the thorax; extreme congestion of both lungs; the right ventricle distended with fluid black blood; walls of the left ventricle hypertrophied; well-marked atheroma of aorta. Kidneys weighed 4 oz. and 6 oz. respectively; both were diseased, the surface of each being uneven from the presence of numerous depressions, in the vicinity of which were several small projecting nodules; capsule adherent in places; surface of section pale and bloodless; no distinction between central and cortical portions; the pyramidal portion was for two-thirds of its extent occupied by a deposit of a light yellow colour and firm consistence, occurring in isolated masses of circular shape, and varying in size from that of a millet-seed to that of a pea. With the exception of decided vascularity of the mucous membrane of the large bowel, the intestines were healthy. Bladder firmly contracted and empty.

Remarks.—At the time of the occurrence of this case an outbreak of cholera was not unlikely, as cases had been reported from some stations close by. The sudden occurrence of the symptoms of unconsciousness, coldness of surface, feebleness of voice, vomiting, purging, the stools being of the rice-water character, and finally the suppression of urine, might have justified the diagnosis of malignant cholera, and in the absence of an autopsy the case would most probably have been reported as such. The examination, however, revealed a hopelessly disorganised pair of kidneys, and justified the conclusion that all the symptoms were due to uræmia. It will, therefore, be well to bear in mind the possibility of cholera-like symptoms being due to the diseased kidneys. It may be added that, contrary to expectation, no outbreak of cholera took place at the station where the subject of these notes died.

Watton.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TRAUMATIC NEUROMA OF ULNAR NERVE, WITH LOSS OF POWER OF PARTS SUPPLIED.

(Under the care of Mr. SYDNEY JONES.)

E. A—, aged ten, was admitted on March 10th, 1882. Twelve months before she had fallen on to a window, and wounded her left arm above the elbow on the inner side. The wound was sutured, and healed in a month's time, but a tender spot remained in the centre.

On admission she complained of a tender place above the left elbow, and on examination of this there was found to be

two inches above and a little posterior to the internal condyle, a scar about an inch and a half in length, running downwards and backwards; posteriorly to this there was another about three-quarters of an inch long. Beneath the principal cicatrix there was a very tender swelling in the course of the ulnar nerve, about the size of a horsebean, and presenting the character of a neuroma. Attached to this and a little below (a quarter of an inch) was a much smaller swelling having the same character. The left forearm was not so well developed as the right, this being most marked in the flexor and the inner sides; there was loss of sensation along the ulnar side of the hand, the whole of the little finger, and ulnar side of ring-finger. The movements of adduction of the hand and apposing of the little finger and thumb were imperfect, and she was unable to adduct or abduct the fingers. The muscles of the inner side of the hand and between the metacarpal bones were much wasted.

On March 18th, the patient being under the influence of ether, Mr. Sydney Jones made an incision about three inches in length over the neuroma and in the course of the ulnar nerve, and another at right angles to this. On dissecting down, the two swellings were found to be connected with the ends of the divided nerve, which were about two inches apart, a small fibrous cord connecting the two. The bulbous enlargements were removed. Both ends were stretched, the upper end to much greater extent and more easily than the lower, and were united together by means of three catgut ligatures. It was difficult to retain them in position on account of the tension. This was avoided by putting the elbow in a straight position. A drainage-tube was placed in the wound, which was closed by catgut sutures, and the limb, placed in a straight position, was encased in an antero-posterior plaster-of-Paris splint. The operation was conducted antiseptically.—19th: In great pain all day; pain described as of a jumping character. Temperature in the morning 104.2°, in the evening 103.2°.—20th: Complaining of pain in the wound. In the morning, pulse 128, temperature 100.6°; evening temperature 99.6°. The wound was dressed; there was found some slight collection of pus between the stitches. Wound looking well; some stitches removed.—21st: A little pain, passing halfway down the forearm on the inner side; can feel in little finger when firmly touched.—24th: Wound re-dressed antiseptically; more pus between edges of wound; the transverse one not healed, and the one at right angles still open where the two join; one or two small sloughs came away; remaining stitches removed, and edges approximated by strapping. No elevation of temperature since the evening of the 20th.—26th: Less discharge; edges closer together; re-dressed under spray.—30th: Wound re-dressed; small slough separating at junction of the two incisions. Can feel when little finger is gently stroked; unable to abduct or adduct fingers.

On April 3rd the wound was re-dressed, and lasted well. On the 6th the antiseptics were left off, and zinc ointment substituted. A week later there was more power in the little finger, and she felt well where before there was either partial or complete loss of sensation.—On the 18th the wound was healed.

On May 5th she left the hospital cured.

On microscopical examination the bulbous enlargements of the nerve proved to be true neuromata, there being little fibrous tissue.

SUSSEX COUNTY HOSPITAL, BRIGHTON.

VESICO-VAGINAL FISTULA; COMPLETE CURE WITHOUT AN OPERATION.

(Under the care of Mr. JOWERS.)

C. P—, aged thirty-nine, was admitted on July 5th, 1882, into Bristol ward. The patient complained of being unable to "hold her water." Ten weeks before admission she was confined. The last confinement was her sixth, and was more difficult than the previous ones. Labour lasted forty-eight hours, and forceps were used. On the ninth day after the operation her urine dribbled away for the first time.

On admission there was a vesico-vaginal fistula at the very top of the anterior wall of the vagina. The opening was ragged, with cicatricial borders, and large enough to admit the tip of a man's forefinger. A female catheter was passed into the bladder, through the fistula into the vagina. The anterior lip of the os uteri appeared to have been destroyed, and the os uteri itself was left somewhat patent.