interval of two hours. The improvement was maintained, and although the condition of the patient during the night was precarious, the breathing, further aided perhaps by creating a moist atmosphere in the room, became easier and regular.

On the following night, however, collapse was again imminent. The strychnine was resumed in larger doses, and again seemed effective, while recourse was had, as a possible valuable adjunct, to the use of oxygen. It is prepared at Nice, in india-rubber bags, to which can be fitted a glass tube for insertion in the nostril. The effect of this combined treatment was as remarkable as Dr. Lauder Brunton seems to have found in the case which forms the subject of his paper. The patient's colour grew better, she became more sensible, and "expressed herself as feeling more comfortable." For two days her condition showed very little change, the same treatment being repeated at intervals. Brandy was freely administered, and when feeding was difficult, nutrient enema and suppositories were substituted.

Sunday was the fourth night of this critical condition, and it seemed that if food could have been taken in any quantity, hope might still have been entertained. This object, however, could not be obtained, and although injections of ether and caffeine were resorted to in addition to the previous treatment, the vital powers gave evidence of flagging. The temperature was then 102°; indeed it never went beyond 103°. The pulse rose rapidly, and was correspondingly weak; the breathing more superficial, though marked by loud mucous rales. The patient became again unconscious, the extremities cold, the fingers and lips cyanosed, the face of a dusky hue, and the skin suffused with cold sweat. The condition was identical with that described in the paper referred to before. It was such that further intervention could only be suggested by the fact that the patient had rallied so frequently from an apparently hopeless state. Extraction of blood offered some prospect of relieving the right heart, and Dr. Allen Sturge, who was summoned in consultation, agreed that it might be resorted to as a last resource. Fourteen leeches were applied in the interscapular region, and the wounds induced to bleed freely.

The result, if only temporary, was extremely beneficial. The cyanotic condition was markedly relieved; warmth returned to the extremities, the breathing was improved, the patient regained complete consciousness, and very shortly asked to drink. Brandy was taken on three occasions, and the pulse for a time regained some power. The improvement was maintained for several hours, but towards morning, though oxygen was still breathed at intervals, signs of approaching dissolution were manifest.

Death ensued some hours later, but by "quiet and peaceful asthenia," to use Dr. Broadbent's expression; a result sufficient to justify the last attempt at relief.

A perusal of the paper by Drs. Brunton and Prickett will show a remarkable similarity in the condition of the two patients, in the means adopted to relieve them, and unhappily, also, in the instability of every promising improvement.

TWO CASES OF HEPATIC ABSCESS TREATED BY SIPHON DRAINAGE.

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DR. MANSON'S interesting description of his ingenious apparatus for the evacuation of abscesses of the liver and analogous affections¹ puts me in mind of two cases of hepatic abscess which I had the opportunity of observing almost simultaneously in the service of Dr. G. Bülow, at the General Hospital at Hamburg, about six years ago. Possibly they may be considered worth describing. They were both treated by a kind of siphon arrangement similar to Dr. Manson's, and both recovered completely, though I regret to be unable to furnish any data as to their subsequent history.

CASE 1.—A ship's cook, aged 27, a native of Holstein, had spent some

years in the tropics, where he had suffered from malaria, dysentery, and one or two minor disorders. On admission to the hospital he presented symptoms pointing to an abscess of the liver of rather considerable dimensions. Puncture with an ordinary Pravaz syringe yielded a negative result, but on employing a longer needle foul and discoloured pus was drawn off. A trocar was thereupon inserted through the eighth intercostal space in the axillary region, and the siphon apparatus devised by Dr. Bülow, which has been in general use at the hospital for many years back, was applied. In the course of six hours very nearly a litre of matter was evacuated, with a most favourable result. A week later the siphon arrangement was omitted, and the pus, which had become scanty and laudable, was allowed to flow into a dressing of sublimate gauze. After another eight days the discharge from the wound consisted of pure golden-yellow bile. This gradually decreased, and the patient was discharged in excellent health seven weeks after the operation.

CASE II.—A lad of about 14 years of age suffered from an abscess due to the presence of an echinococcus cyst which had suppurated. Careful and repeated examination by two or three physicians failed to reveal any signs of the parasite in the pus obtained by exploratory puncture; but in the course of the disease the diagnosis was settled, both by the patient expectorating hooklets during a few days, and also by the subsequent expulsion of a large quantity of cysts through the incision before the wound healed. After the cysts came away recovery was rapid and complete.

The method of treatment employed by Dr. Bülow, although based on the same principles as Dr. Manson's, differs from the latter in some of the details, and may be preferred by some practitioners, especially as it involves no increase of the *armamentarium chirurgicum*. The preparations are as follows: Get an ordinary trocar of not too small a calibre, and a Nelaton catheter fitting accurately into the cannula; fenestrate the catheter according to the presumed depth of the abscess or, in empyema, of the pleural cavity; cut off the thickened rim at the distal end. Have ready a scalpel, solutions of carbolic acid (5 per cent.) and of boracic acid (3 per cent.), and a little carbolised olive oil; further, prepared cotton wool, iodoform powder, soft gauze roller, pretty stout silk ligature, elastic collodion, adhesive plaster, a few feet of india-rubber tubing, a glass funnel, a ring of lead (half an inch or an inch of ordinary leaden piping will do), two clamps, a short glass tube fitting into the catheter and slightly widened at the other end, if possible, to fit into the thicker tubing, and lastly, a glass jar to serve as a recipient.

The use of these simple articles is as follows: All necessary antiseptic precautions being fulfilled, a small incision is made in the skin, and the trocar, enclosed in its sheath, passed into the diseased cavity. Thereupon the stylet is withdrawn, the thumb of the left hand adroitly closing the orifice of the cannula until the catheter, carefully lubricated, can be passed through it into the cavity; then the sheath is withdrawn, and the catheter closed with a clamp. These manipulations must be performed rapidly so as to prevent any escape of pus. A little iodoform is now sprinkled on the wound, the lips of which close well around the catheter, and the latter is fastened to the skin of the thorax by carefully fixing a number of thin layers of cotton wool around it by means of collodion. In this way a little antiseptic shield is formed, which adheres firmly both to the catheter and the skin. In addition, the former may be tied round with a silk ligature, the ends of which are then looped and fixed with adhesive plaster or with strips of gauze and collodion to the thorax, or the adhesive plaster may be fastened direct to the catheter. If the whole is then enveloped in cotton wool a perfectly reliable dressing is secured. The connection with the siphon is made in the following manner: The recipient is partly filled with antiseptic fluid; the glass funnel is weighted with the leaden ring, and the stem inserted into one end of the tubing, the other end being joined to the piece of glass pipe; the tubing thus fitted is filled with solution of boracic acid, and firmly connected with the projecting end of the catheter; the glass funnel is placed stem upwards in the recipient, a little dexterity being required to prevent air getting into it while so doing. When this has been satisfactorily achieved the clamps are removed, and a steady flow of pus is at once established.

Although fully recognising the advantages of Dr. Manson's method of proceeding, I have here ventured to recommend the German plan, which, from fairly extensive personal observation, I can state to be safe, efficient, and rapid of execution.

A STOCK OF SLUDGE.—During the week ending January 30th 17,000 tons of sludge were taken to sea from the northern outfall at Barking, the amount remaining in stock being about 2,000 tons.