Clinical and other Notes

by the means of a flame. The conical end left by the breaking off at the middle of the depression renders easy the fitting of this end into the rubber receptacle, just mentioned, on the syringe. For this purpose the syringe is held with the rubber fitting downwards and this latter is then squeezed on to the broken-off end of capsule. When this is accomplished the syringe is turned bodily round so that the capsule is now inverted when its other end is broken off at the file mark and the pumping of its contents can be commenced.

The syringe can be made entirely of metal, or better, of glass, or silica ware, with metal fittings. In the case of an all-metal syringe the graduations would be on the stem whilst in one with a glass barrel they would be on the barrel. The size of the syringe need not be large, depending entirely on the amount that is desired to deliver with one stroke of the piston. Speaking generally, it need not be larger than a five cubic centimetres or ten cubic centimetres record syringe. The holes in the studs as well as the groove in the piston should be fairly large, especially in consideration of the use of the apparatus as an aspirator. On the end C, D (fig. 1), of the barrel may be fitted an additional nozzle controlled by a tap or there may be placed here a fitting for the reception of a suitable handle to manipulate the apparatus while it is being used.

Some of the uses to which the syringe can be put may be indicated. Thus it may be used as an aspirator, to remove collections of fluid from various parts of the body, for the intravenous injection of salvarsan, as an infusion or transfusion appliance, as also for the administration of successive measured doses of drugs to a series of men as in the administration of morphia or of typhoid vaccine. It may also be used for the measuring out of successive measured doses of medicinal substances into ampoules, more especially when this has to be accomplished in an aseptic manner. It can also be used as a simple syringe if it be fitted with the nozzle controlled with a tap at the end C, D, as mentioned above. The drawings illustrating this description are by Serjt. James Read, R.A.M.C., T.F., to whom I wish to express my thanks.

I am indebted to Lieutenant-Colonel D. J. Graham, R.A.M.C., T.F., for permission to publish this note.

AN APPARATUS FOR WITHDRAWING BLOOD, ETC., FOR CULTURES, WASSERMANN REACTION, ETC.

BY LIEUTENANT J. P. Mcgowan.

Royal Army Medical Corps.

This apparatus is constructed from a test-tube of suitable size, a cork to fit it, a piece of small-bored glass tubing, a piece of Carrel tubing, a large sized record needle, a piece of bandage and some cotton-wool and thread. A cork (e.g., a medicine bottle cork) to fit the test-tube selected has a narrow longitudinal groove cut in its circumference to allow of the escape of air from the interior of the test-tube. Through a hole bored in the centre of the cork is passed a piece of glass tubing about 1 inch diameter and about three inches long. Round the edge of this glass tubing which is to project into the test-tube is wrapped cotton-wool of sufficient quantity to form a plug for the test-tube when the cork is withdrawn.
On the other end of the glass tubing is fitted a piece of Carrel tubing about six inches in length carrying a large sized record needle at its end. The cork so prepared is fitted into the test-tube and tied in by means of thread round the rim of the test-tube and over the end of the cork. After this, four turns of a loose wave three-inch bandage are taken round the upper edge of the test-tube just beneath the rim. The record needle is now bent over and bound to the side of the test-tube by several additional turns of the bandage, which is then split at the end and tied in a single knot. A oval of oiled paper is then put over the top of the test-tube to include everything down to the bottom of the bandage, where the paper is now securely fastened with a piece of string. A few pricks are now made on the paper with a needle to allow of the escape of steam and the entrance of air.

The apparatus is now sterilized as a whole by pressure steam in the autoclave. After sterilization, in order to prevent rusting of the needle, if the apparatus is kept some time before use, it is dried rapidly in a hot air chamber or by placing it near a fire.

The test-tube may be used empty or may have a sufficiency of any suitable culture medium placed in it before sterilization.

In using it the oval of paper is removed, the bandage is loosened and the turns unwound until the needle is exposed. The Carrel tubing is now grasped near the point where it is attached to the record needle and the apparatus is then suspended from this point where the remaining turns of the bandage are removed. The needle is now inserted into the vein, when blood can be drawn into the test-tube in any required quantity. The needle is then withdrawn from the vein and, after cutting the thread which holds the cork in the test-tube, the cork with its appendages is bodily removed from the test-tube. The cotton-wool plug is, however, left in the test-tube and the hole in its centre is immediately closed with a pair of sterile forceps and the plug otherwise adjusted. The test-tube may now be incubated or otherwise dealt with as the occasion demands.

The needle and glass tubing are immediately cleaned out and, together with the cork and a fresh piece of Carrel tubing, are fitted up in a fresh test-tube and sterilized to be ready for use on a future occasion. With the exception of the rubber tubing the materials employed may be used over and over again if precautions as to cleaning and drying the apparatus are carefully observed.

I am indebted to Lieutenant-Colonel D. J. Graham, R.A.M.C., T.F., officer commanding the hospital, for permission to publish this note.

STERILIZER FOR DRESSINGS, &c.

By Captain J. Crawford.

Royal Army Medical Corps.

Below is a description of a sterilizer for dressings, etc., made for me by Staff-Serjt. Atkinson. It would appear to be of value for field ambulance and regimental work.

Things required: One biscuit tin; one four-gallon oil tin; one good cork, from empty pickle bottle or tablet bottle; one lid of N.C.T. charge box (to be obtained from any battery). Soldering iron, soft solder and flux (ac. hydr. chlor.)