

A NOTE ON SALINE INJECTIONS, WITH A  
DESCRIPTION OF A SIMPLE INSTRUMENT  
FOR THEIR SUBCUTANEOUS  
ADMINISTRATION.

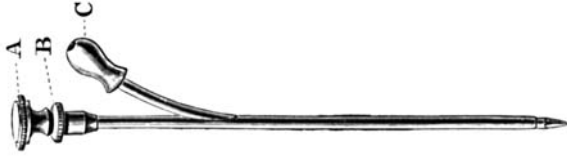
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THE introduction of normal saline solution into the circulation to counteract shock, to dilute and alter the composition of the blood, or to replace its loss from hemorrhage, is a therapeutic measure of proved utility. And with its more frequent application comes a proportionate increase in the number of morbid states in which it is found to be of value. Of the three methods of injection—intravenous, subcutaneous, and rectal—the subcutaneous is the most common, and will probably always be the most favoured. For it is safer, simpler, and of less elaborate technique than the intravenous, yet equally certain and almost equally rapid; while it is more efficacious and more speedy than the rectal method.

As far as I know, there is no special instrument for the subcutaneous administration of normal saline solution. The usual means adopted is to connect an aspirator needle with some rubber tubing having a funnel inserted at the other end. It has occurred to me that the little instrument figured and described below ought to prove of service. It adds little to the weight of the obstetrical armamentarium, and takes up little space—factors of importance to the practitioner. It is readily sterilizable, and is so simple in construction as to be practically always ready for immediate use. For these reasons, and because, as is obvious, no assistance is required in manipulating it—in this differing from the apparatus for intravenous injections—the instrument ought to prove useful, especially in those awkward and dangerous cases where, without either time or opportunity to send for skilled assistance, the practitioner has singlehanded to cope with severe hemorrhage from placenta previa or uterine inertia.

The instrument is composed of a trocar and cannula (figured in the cut), with a rubber attachment. The cannula is double-channelled in its upper third. The straight arm receives the trocar (A). This, when screwed home by means of the screw (B), cannot be entirely removed from the cannula. It is retained in position, when fully drawn out, by an enlargement of its shaft

just above the pointed extremity, this enlargement filling the space of the straight arm above the bifurcation. There is, therefore, a free passage afforded to the stream through the rubber tube and bent arm, while the remaining space above the junction is so filled by the trocar shaft as to be practically a closed joint.



The length of the trocar is  $5\frac{3}{8}$  inches, of the cannula  $4\frac{5}{8}$  inches, the portion from bifurcation to point taking up 3 inches of this. The calibre is rather greater than that of a No. 3 English catheter. The rubber tube which is slipped over the bulb enlargement (C) when in use is 3 feet 9 inches long, with a funnel-shaped mouth. Its calibre is that of a No. 14 English catheter.

My instructions have been carried out with care by Messrs. Hockin, Wilson and Co., 186A, Tottenham Court Road, from whom the instrument can be obtained.