

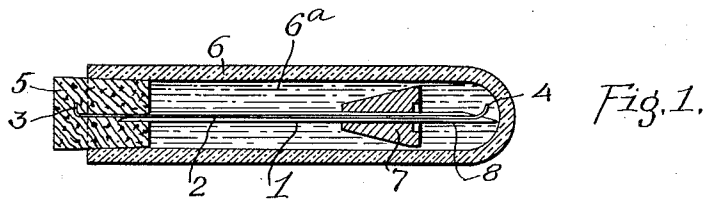
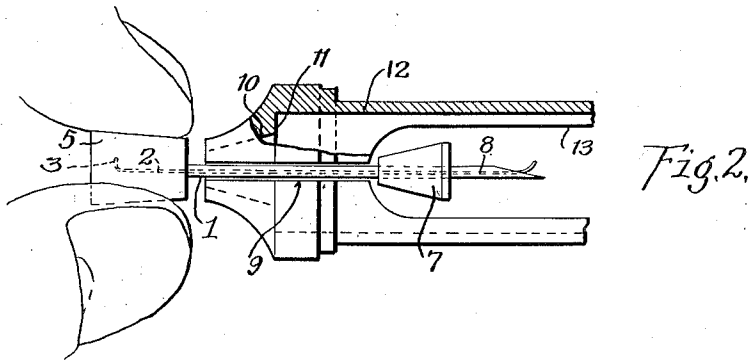
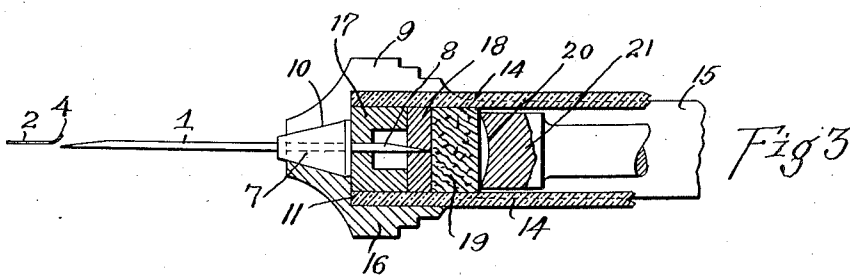
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ASEPTIC NEEDLE HOLDER

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ASEPTIC NEEDLE HOLDER.

Application filed March 2, 1922. Serial No. 540,628.

The object of this invention is to provide a dependable method and means for the handling of hypodermic needles prior to injections.

The invention may be understood by reference to one illustrative embodiment shown in the accompanying drawings, in which:—

Fig. 1, is an enlarged cross-section of a needle carrying receptacle with a needle therein.

Fig. 2 is an enlarged plan view showing the method of placing the needle upon the syringe.

Fig. 3, is an enlarged section showing the needle seated and the syringe substantially discharged.

It is to be understood that the illustrative form shown in the drawings is simply a preferred embodiment of the invention; and that in the following explanation of that specific form, the described details of structure and organization are merely exemplary.

Referring to Fig. 1, the hypodermic needle 1, which is to be maintained sterile until used, is carried within a tube 6, preferably of glass, to provide a receptacle for a liquid germicide 6^a, and sealed by a closure in the form of a plug 5. To support the needle temporarily, there is a fine wire carrier 2 secured at one end 3 to the plug 5 and extending axially thereof, and having its outer end 4 bent or curled, as shown, to retain the needle thereon until deliberately removed. The plug 5 projects from the end of the tube somewhat, and provides a readily withdrawn handle for the needle, which may be removed from the liquid germicide without spilling it, and seated on a syringe without contamination, as will be presently described. Preferably, as shown, one end of the needle is initially thrust into the plug a short distance, thus sealing it and preventing shifting of the needle on its carrier. The wire carrier 2 has nearly the same diameter as the bore of the needle, so that it keeps said bore clear of all matter which would obstruct flow of the medicament and hence prevent proper functioning of the syringe during an injection.

The needle is of the double-ended type having an intermediate seating enlargement 7 secured thereto, and the enlargement shown is frusto-conical to center the needle

on its seat. Such an enlargement provides means whereby the needle may be securely held upon a syringe during an injection.

The illustrative syringe, which is claimed per se in another application Serial No. 579,924, filed Aug. 5, 1922, comprises a skeleton barrel 12 having longitudinal openings 13 to permit manipulation and inspection of the medicament containing cartridge 14 (Fig. 3), which usually contains sufficient medicament for a single injection. At one end the barrel 12 is provided with a head 16 having an axial seat 10 shaped to receive the needle enlargement 7. A slot 9 extends from one of the openings 13 to the extremity of the syringe, thus providing a passageway for the needle. When it is desired to insert a new needle, the practitioner grasps the plug 5, withdraws it from the tube together with the needle secured thereto, moves the needle laterally through slot 9 (Fig. 2), without necessary contact with any part of the syringe, until the needle is alined with its seat, whereupon he moves the needle outwardly until the needle enlargement is seated, Fig. 3. Then by gently pulling on the plug, the pliant wire carrier is pulled out of the needle. In the described operation, the opening 13 in the syringe barrel freely passes the needle enlargement.

After the needle has been seated, the medicament dispensing package 14 is inserted into the barrel. As shown, the package may consist of a glass tube sealed at one end by a generally cup-shaped plug 17, which may be of rubber, and sealed at the other end by a plug 19 designed to be slid through the tube by the syringe plunger 22 to expel the medicament through the needle, which pierces the cup-shaped plug as shown in Fig. 3. The plug 19 may be a composite one formed of united cork and rubber sections, as shown. At the end of the barrel, an abutment 11 is provided by the head 16 for the end of the cartridge, which holds the needle enlargement within the seat (Fig. 3), and hence secures the needle itself.

After injection of the medicament, the empty cartridge may be removed from the barrel, with the needle sticking through one end. The needle is easily withdrawn from plug 17 by its enlargement and may be

washed and placed in a sterilizing receptacle for use again.

It will be seen that this invention is of marked importance in the practice of aseptic therapy and that it lends itself to the quick and rapid relief of painful or dangerous conditions without a moment's delay, thus serving a most important rôle in the cause of humanity.

Obviously the present invention is not restricted to the particular embodiment thereof herein shown and described. Moreover, it is not indispensable that all the features of the invention be used conjointly since they may be employed advantageously in various combinations and sub-combinations as defined in the claims.

I do not claim herein the syringe illustrated nor the cartridge embodied therein, as the same are the subjects of inventions described and claimed by me in other applications pending concurrently herewith.

What I claim is:

1. A hypodermic needle carrier comprising, in combination, a cork plug; a wire secured at one end within the plug and extending substantially coaxially thereof and having its outer end curled; said wire being of sufficient fineness to extend through the bore of a hypodermic needle and to retain such a needle thereon by means of its curled outer end.

2. An aseptic holder for hypodermic needles comprising, in combination, a receptacle having an opening; a closure sealing said opening; and a needle carrier fast at one end to the closure to be removable therewith and extending into said receptacle, said

needle carrier extending through the bore of the needle.

3. An aseptic holder for hypodermic needles comprising, in combination, a receptacle having an opening; a closure sealing said opening; and a needle carrier fast at one end to the closure to be removable therewith, said needle carrier having a fine wire passing through the bore of the needle and having its outer end curled to retain the needle thereon but permit removal from the needle when desired.

4. An aseptic holder for hypodermic needles comprising, in combination, a receptacle having an opening; a resilient plug sealing said opening; and a needle carrier fast at one end to the plug to be removable therewith, said needle carrier having a fine wire passing through the bore of the needle and having one end bent to form an enlargement which is embedded in the plug, and extending substantially axially of the plug; the plug holding and sealing the adjacent end of the needle.

5. A hypodermic needle outfit comprising, in combination, a resilient plug; a fine wire secured to the plug; and a hypodermic needle carried coaxially on the fine wire; said needle double-pointed and having a seating enlargement fast thereto intermediate its ends, whereby it may be positioned upon a syringe, the plug providing convenient handling means and also a sealing closure for a container within which the needle may be carried.

In testimony whereof I affix my signature.

HARVEY S. COOK.