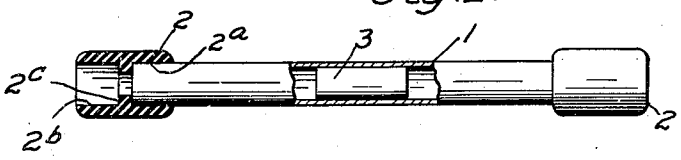
April 2, 1940. R. LEWIS 2,195,675

MEDICAMENT DISPENSER

Filed Dec. 7, 1935

Fig. 1.



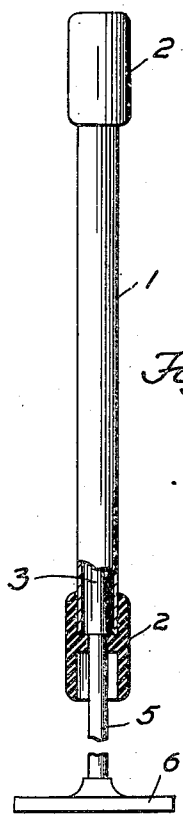


Fig. 2.

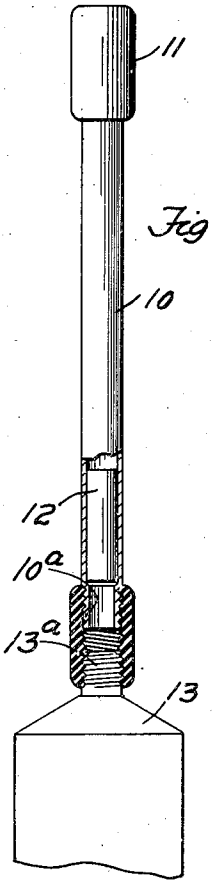


Fig. 4.

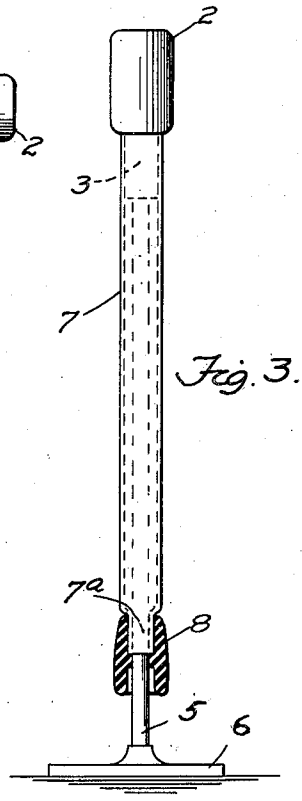


Fig. 3.

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MEDICAMENT DISPENSER

Rosemarie Lewis, Los Angeles, Calif.

Application December 7, 1935, Serial No. 53,348

2 Claims. (Cl. 128—261)

The present invention has relation to means for applying ointment to internal body surfaces.

It is the general object of the invention to provide a simple, inexpensive and efficient device of this character. More specifically it is an object to provide means for applying such medicaments in predetermined, measured quantities. It is a further object to provide a device which may readily and completely be taken apart and as readily reassembled.

These and the further objects and advantageous features of the invention are hereinafter fully described and illustrated in the accompanying drawing, of which:

Fig. 1 is an elevation, partly in section, of a device embodying the invention,

Fig. 2 is a substantially corresponding view showing the device filled and ready for use.

Fig. 3 illustrates the appearance of the device after use, and

Fig 4 shows a modified structure the operation of which will hereinafter be fully explained.

As illustrated in Fig. 1, the device comprises a tube 1, on each end of which is mounted a tip 2, and within which a plug 3 is shown seated to slide. The tube, as shown, is perfectly plain and it should be made from transparent material in order that its contents may always be exposed to inspection. The plug 3 is slidably seated within the tube and it is preferably of a color which offers contrast to the contents of the tube in order to facilitate such inspection.

The tips 2 are preferably exactly alike and they are made with inner bored sockets 2^a, slightly smaller in diameter than the tubing. They are made from somewhat resilient material, such as a rubber composition, in order that they may easily be pressed on to the ends of the tube and remain in position until forcibly withdrawn by hand. Into the opposite end of the tips is sunk a bore of a suitable diameter, which may be identical with bore 2^a, and a smaller bore 2^c is carried through the wall between bores 2^a and 2^b. By making this middle bore smaller than the inner diameter of the tube, it is seen that the plug 3 is held confined within the tube when the tips are mounted in position. And it is also appreciated that, by merely pulling one or both tips away from the tube, the plug may be removed and each part of the device may be thoroughly cleaned and disinfected.

The tube is filled with medicaments from one end in any suitable manner, as by placing the threaded end of a collapsible tube within the bore 2^c, and the ointment passing into the tube pushes the plug 3 along to the opposite end, until it comes to stop against the wall 2^c. A measured quantity is in this manner deposited within the tube without waste.

To apply the ointment, it is now necessary to insert the end of the device, away from the plug, into the bodily cavity to be treated, whereupon a pushrod 5 is caused to enter the exposed tip to return the plug in the opposite direction and thereby to expel the ointment into the cavity. It may be well to provide a large head 6 on the pushrod to form a base upon which the device may be caused to stand upon completion of the treatment and until it is convenient to take the device apart for cleaning and sterilizing, substantially as shown in Fig. 3.

From the foregoing, it is seen that I provide a very simple and inexpensive device, which is more sanitary than any other device that has come to my attention. As the plug is held confined by the middle wall of the two tips, it follows that a measured quantity is delivered to the place of application whereas, if no plug were provided, there would be nothing to stop the ointment from being wasted and no certainty as to the quantity dispensed. And it is even more important to note that, as the plug is removable upon withdrawal of the tips, a plug of different length, or a plurality of plugs may be placed in the tube, thereby to vary the quantity to be dispensed. For nasal application, for example, only a small quantity might be required and can be correctly determined by insertion of the proper plug.

The device of Fig. 3 is shown slightly modified in that one end of the tube 7 is shown contracted to form a neck 7^a, on to which the tip 8 is pressed. In this case, the inner surface of this neck may serve to guide the pushrod 5. And the plug is removable from the opposite end of the tube. Both ends may, of course, be contracted to form necks 7^a only that, in such case it is not possible to remove the plug for cleaning.

The modified device of Fig. 4 comprises a tube 10, also made from thin transparent material, such as glass or some cellulose composition, and it is provided at each end with screw threads 10^a adapted to receive a pair of threaded tips. A plug 12 is seated to slide within the tube, and it is held confined between the ends of the tube, the inner diameter of which of necessity becomes reduced in pressing the screw threads into the tube ends.

In this case, the screw threads of the other end of the tips may be of a size to receive the threaded neck 13ª of a collapsible tube 13, by means of which the tube may be filled. This also forms a convenient device, but it is not found so practical as the foregoing, because the plug always remains confined within the tube, making it difficult properly to clean and sterilize the device. Also it is noted that no change of plug can be effected to vary the quantity dispensed.

So far as I know, I am the first to provide a device which can be taken apart and again assembled and by means of which predetermined quantities may be dispensed. While a rod is shown for dispensing the contents of the tube, I wish it understood that other means may be substituted, if preferred.

I claim:

1. A device of the class described, comprising a tube having one end thereof internally threaded for releasably connecting the tube to a container, the outer edge of the threaded end of the tube being rounded and smooth, a member attached to the other end of the tube, and a rod passing through the member into the tube and longitudinally slidable in the tube.

2. A device of the class described, comprising a tube having one end thereof internally adapted for releasably connecting the tube to a container, the outer edge of said end of the tube being rounded and smooth, a member attached to the other end of the tube, and a rod passing through said member into the tube and longitudinally slidable therein.

ROSEMARIE LEWIS.