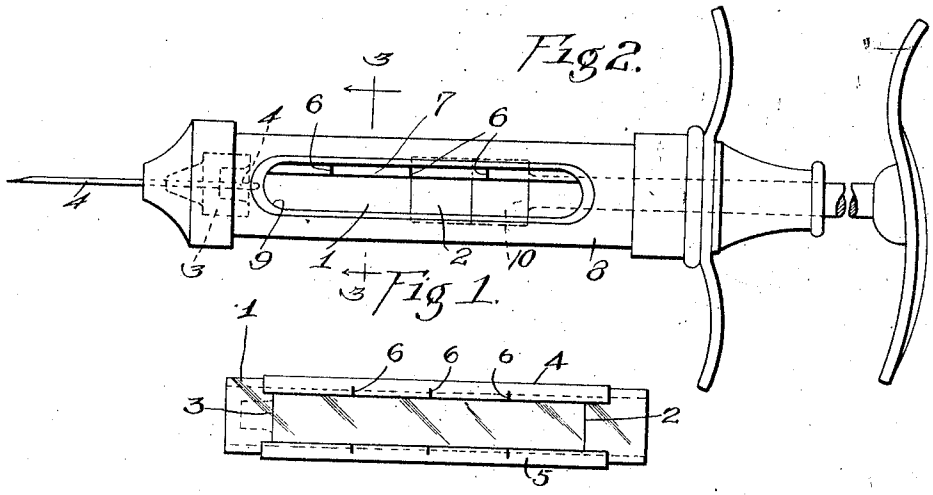
Dec. 1, 1925. 1,564,048

H. S. COOK

MEDICAMENT DISPENSING CARTRIDGE

Filed March 2, 1922



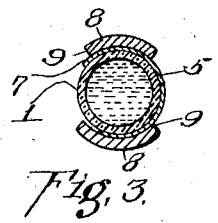


Fig. 3.

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UNITED STATES PATENT OFFICE.

HARVEY S. COOK, OF VALPARAISO, INDIANA, ASSIGNOR TO COOK LABORATORIES, INC., OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

MEDICAMENT-DISPENSING CARTRIDGE.

Application filed March 2, 1922. Serial No. 540,627.

To all whom it may concern:

Be it known that I, HARVEY S. COOK, a citizen of the United States, residing at Valparaiso, in the county of Porter and State of Indiana, have invented certain new and useful Improvements in Medicament-Dispensing Cartridges, of which the following is a specification.

This invention relates to improvements in medicament dispensing cartridges or receptacles and its primary object is to provide a convenient form of such cartridge to be inserted in hypodermic syringes, though capable of other uses.

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

Fig. 1, is a side elevation of a medicament cartridge partly enclosed by a label, whose thickness is shown exaggerated.

Fig. 2, is a side elevation partly in section showing the cartridge fitted to a syringe and having its contents partially expelled.

Fig. 3, is an elevation in section on line 3—3 of Fig. 1.

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

The cartridge 1 shown in the drawings is formed from a tubular section of glass or of any similar material which is transparent and substantially unaffected by whatever medicament may be placed therein. At one end the cartridge is closed by a slidable resilient plug 2 (which provides a plunger for expelling the medicament), and at the other end is closed by a plug 3, which is preferably recessed axially, as shown, to facilitate piercing by the syringe needle 4 (Fig. 2). Between the two plugs a sterile liquid medicament of known volume is held; and when the syringe needle has been thrust through plug 3 and the slidable plug 2 has been pushed inwardly, the medicament is ejected through the needle.

In order that the origin of the cartridge may be indicated, as well as the character of its contents and the usual doses for children and adults, each cartridge has a printed label 5 secured in any desirable manner to its outer wall, and so arranged relative to the inner faces of the plugs 2 and 3 that graduation marks 6 provided along either longitudinal edge 7 of the label, will indicate fractions of the total volumetric contents of the cartridge. The label may be of paper; adhering by mucilage, or of any equivalent material which will lie snugly upon the cartridge. To permit the interior of the cartridge to be seen, the longitudinal edges 7 of the label are separated an appreciable distance from each other, as shown in Fig. 1. Thus the practitioner may assure himself that there is no precipitate or visible impurity contained in the cartridge; an important advantage in view of the unstable nature of some medicaments.

Referring to Fig. 2 wherein the cartridge is shown inserted in a hypodermic syringe 8 provided with a longitudinal opening or window 9, it will be observed that the graduation marks 6 provided along one edge of the label appear through the syringe opening 9. Furthermore, as these edges of the label are spaced apart, the interior of the transparent cartridge may be examined as the plunger 10 of the syringe pushes the slidable plug 2 toward the needle end of the instrument. Thus if, under the circumstances of the case, but one-third of a dose may be safely injected, the physician may, with certainty, eject one-third of the contents of the cartridge by releasing pressure on the plunger at the moment when the inner face of the slidable plug 2 comes opposite the appropriate graduation mark. Use of the described cartridges thus permits a practitioner to administer a dose with more assurance and ease than has been possible with earlier types of medicament packages.

The particular construction of cartridge shown in this instance, is not herein claimed per se, because said cartridge, independently of its association with the label herein claimed in combination therewith, is the subject matter of a prior pending application filed by me.

Obviously the present invention is not restricted to the particular embodiment thereof herein shown and described.

What I claim is:

1. As an article of manufacture, a package for liquid medicaments constructed and arranged to be inserted in a hypodermic syringe; said package including a tube of transparent material and of uniform bore, so that its length is a function of its volume; said

tube sealed at opposite ends by plugs, one of which is designed to be pushed by the syringe plunger to eject the medicament; a label adhered to the outerwall of said tube but leaving a longitudinally segment of the tube exposed so that the contents may be viewed; said label having a scale extending lengthwise thereof along one margin, the label being so arranged between the ends of the tube that its markings read in terms of doses or fractions thereof to be administered from the package.

2. In combination with a hypodermic syringe having a hollow chamber whose wall is pierced longitudinally to provide a window or sight opening, and which is constructed and arranged to admit a tubular medicament package therein for dispensing of its contents, of a medicament package comprising a transparent body of uniform cross-section so that its length is a function of its volume; a plug sealing one end of said body and being slidable by the plunger of the syringe to dispense the medicament through the other end of the body; a label adhering to the wall of said body with a scale extending longitudinally of the body, said label so positioned on the tube that its scale reads in terms of doses or fractions thereof, and is visible through the syringe window when the package is in place, while a portion of the transparent wall of said package is uncovered by the label so that the position of the slidable plug relative to the scale may be observed during an injection.

In testimony whereof I affix my signature.

HARVEY S. COOK.