July 15, 1924. 1,501,324

L. EISELE

CONTAINER FOR HYPODERMIC NEEDLES

Filed Aug. 4, 1922

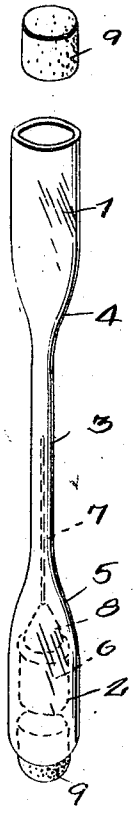


Fig. 1.

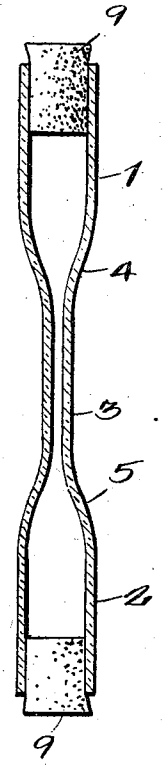


Fig. 2.

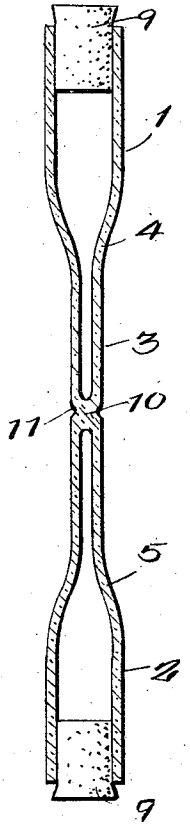


Fig. 3.

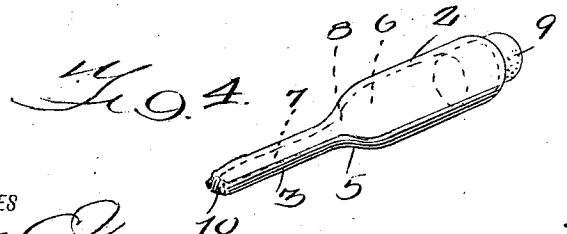


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

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CONTAINER FOR HYPODERMIC NEEDLES.

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To all whom it may concern:

Be it known that I, LOGAN EISELE, a citizen of the United States, and a resident of Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Containers for Hypodermic Needles, of which the following is a specification.

My invention relates to improvements in containers for hypodermic needles and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide a container in which a hypodermic needle may be placed and sterilized, the container then being adapted to be hermetically sealed and to hold the sterilized needle in a sterilized condition until withdrawn from the container for use.

A further object of the invention is to provide a container of the character described which is adapted to hold a needle placed therein in such manner that the point of the needle will be held out of contact with any portion of the container and thus protected.

A still further object of the invention is to provide a container which is adapted to hold a plurality of hypodermic needles in the manner specified in the foregoing, any one of which needles may be withdrawn for use without preventing the holding of the remaining needle or needles in an unimpaired condition.

Other objects and advantages will be apparent from the following description and the novel features of the invention will be particularly outlined in the appended claims.

My invention is illustrated in the accompanying drawings, forming a part of this application, in which—

Figure 1 is a perspective view of a container embodying the invention, showing a hypodermic needle therein, and a closure adapted for use with the container separated therefrom,

Figure 2 is a longitudinal central section through the container shown in Figure 1,

Figure 3 is a longitudinal central section through a modified form of container embodying the invention, and

Figure 4 is a perspective view of one of two similar portions into which the container illustrated in Figure 3 may be divided.

Referring now to the drawings and particularly to Figures 1 and 2 thereof, a container embodying the invention and shown therein comprises a one-piece tubular body of a suitable material which will not oxidize and which is preferably transparent, such as glass. The tubular body comprises axially aligned substantially cylindrical similar end portions 1 and 2 respectively, an intermediate tubular portion 3 axially aligned with the end portions 1 and 2 and of less area in cross section than the end portions, and elongated tapering portions 4 and 5 merging the cylindrical end portions 1 and 2 respectively into the intermediate or neck portion 3.

The end portions 1 and 2 are open at their remote ends and are adapted to receive the body or head portions 6 of a hypodermic needle of ordinary construction so that the stem portion 7 of each needle inserted in one of the end portions will extend into the intermediate or neck portion 3 to a point approximately midway of the length of the latter. The hub or inner end portion 8 of the body or head 8 of each hypodermic needle will engage with the inner walls of one of the tapering portions 4 and 5 so that the point of the needle will be held out of contact with the walls of the intermediate or neck portion 3.

After the needle or needles are inserted in one or both of the open ends of the tubular body of the container shown in Figures 1 and 2, such needle or needles are sterilized while disposed within the container in any suitable known manner. The container body is then hermetically sealed at its ends, as by inserting compressible stoppers 9 in the open ends of the end portions 1 and 2 or by sealing the remote ends of the end portions 1 and 2 in any other suitable known manner, whereby the needle or needles will be maintained within the container body in a sterilized condition until removed for use.

In Figure 3, I show another form of container embodying my invention in which the intermediate or neck portion 3 is slightly longer than in the form of the device hereinbefore described and is divided intermediately by a transverse partition 10 which is integral with the walls of the intermediate portion of the container body and is imperforate. A circumferential groove or kerf 11 is formed in the outer wall of the intermediate portion 3 of the container

body illustrated in Figure 3 and lies in a plane extending through the partition 10 midway between the ends thereof. The circumferential groove is sufficiently deep to insure the division of the container body into two equal portions and along a plane defined by the groove 11 when the end portions of the container body are grasped and swung toward each other, each of the equal or similar portions of the container body thus provided being adapted to hold a hypodermic needle in a sterilized condition. As a result, one of two hypodermic needles held in a container having the construction illustrated in Figure 3 may be removed and used, leaving the other needle in sterilized condition and uncontaminated by contact with the air.

Needles placed within the end portions of the container body illustrated in Figure 3 are held with the points thereof spaced from the partition 10 because of the engagement of the head or body portions of the needles with the tapering portions of the container body and the points of the needles are thus protected.

The modified form of container illustrated in Figure 3 and a portion of which is illustrated in Figure 4 is identical in construction with the form of container illustrated in Figures 1 and 2 except in the details of construction described. The same reference numerals have therefore been used to designate like parts in the two forms of the device.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. Needles held within either of the two forms of the device illustrated and described in the foregoing will be held in a sterilized condition and with the points thereof protected until the needles are removed for use, thus obviating the necessity of sterilizing a hypodermic needle immediately before it is used, which necessity exists when hypodermic needles are held in containers provided prior to my invention of which I am aware.

Obviously, my invention is susceptible of embodiment in forms other than those illustrated in the accompanying drawings, and I therefore consider as my own all modifications of the forms of the device herein disclosed, which fairly fall within the scope of the appended claims.

Having thus described the invention, what I claim is:—

1. In a container for hypodermic needles, a substantially cylindrical end portion open at one end, a tubular neck portion of less area in cross section than the cylindrical end portion, and an elongated tapering portion merging the cylindrical end portion and the neck portion one into the other so that the cylindrical end portion, the tapering portion and the neck portion are substantially axially aligned, said neck portion being of less area in cross section than the hub of a conventional hypodermic needle and of sufficient length to extend beyond the pointed end of a hypodermic needle which has been inserted in the container until the hub of the needle is in abutting relation to said tapering portion.

2. A container of the character described comprising a longitudinal tubular body consisting of substantially cylindrical end portions, an intermediate substantially cylindrical portion axially aligned with the end portions, tapering portions connecting the end portions and the intermediate portion together, a transverse partition located intermediate the length of the intermediate portion and dividing the container into two compartments, each of which is adapted to receive a hypodermic needle and to engage with the hub portions of the needles to hold the points of the needles spaced from the partition and from the side walls of the container, and compressible removable stoppers for the remote ends of said end portions.

LOGAN EISELE.