

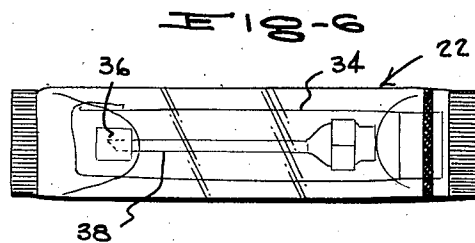
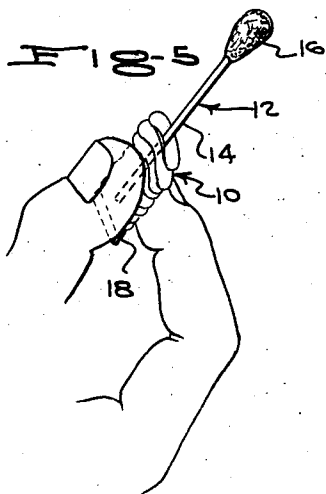
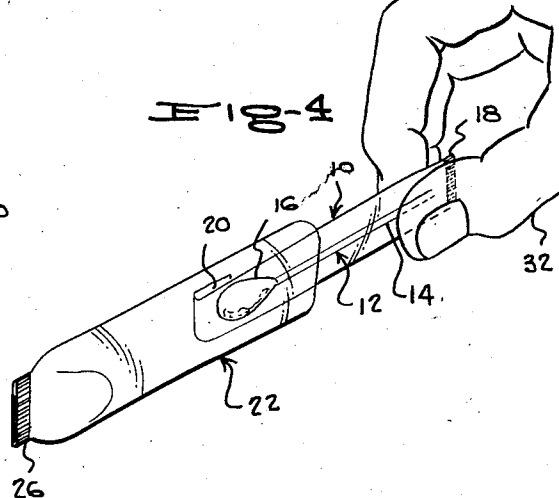
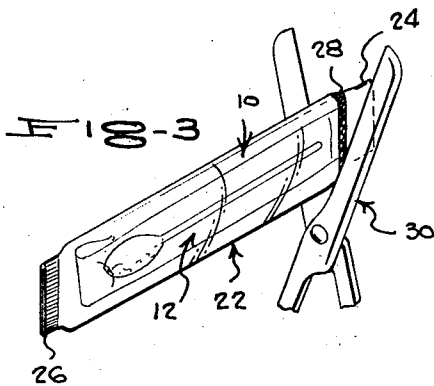
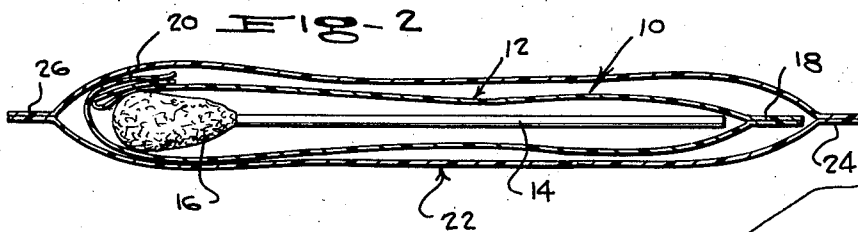
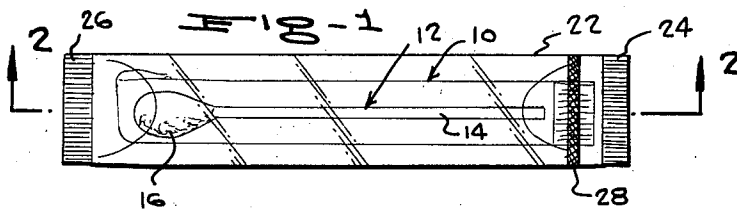
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STERILE PACKAGE

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2,902,146

STERILE PACKAGE

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1 Claim. (Cl. 206—63.2)

The present invention relates to a sterile package for a surgical appliance or the like.

An object of the present invention is to provide a sterile package which lends itself to maintaining a surgical swab, hypodermic needle, or other surgical appliance in sterile condition while in storage and also during the opening of such package prior to use.

Another object of the present invention is to provide a sterile package which dispenses a surgical appliance when needed in such a way that the user thereof can handle it, use it, manipulate it, and yet not contaminate it.

A further object of the present invention is to provide a sterile package for a surgical appliance which is useful in the storage of appliances generally used in first-aid kits, one which may withstand relatively rough handling without contamination, one simple in structure, economically manufactured and assembled, and one which is highly effective in action.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawing, in which:

Figure 1 is a top plan view of the sterile package according to the present invention,

Figure 2 is a sectional view, on an enlarged scale, taken on the line 2—2 of Figure 1,

Figure 3 is an isometric view showing the method of opening the sterile package of the present invention, a portion of a pair of scissors being broken away,

Figure 4 is an isometric view showing the inner sac being withdrawn from the outer casing by the fingers of the hand of the user,

Figure 5 is an isometric view showing how the inner sac is slid back in accordion-pleated folds upon itself to form a sheath for the appliance, in this case being a surgical swab, and

Figure 6 is a plan view of a modified form of the sterile package according to the present invention.

Referring in greater detail to the drawing, in which like numerals indicate like parts throughout the several views, the sterile package according to the present invention comprises an elongated sac 10 enclosing an article having a sterile head section, such as a surgical swab 12 having a shank 14 and an absorbent tip 16 on one end of the shank 14.

The sac 10 has the portion 18 adjacent one end sealingly compressed together and has the portion 20 adjacent the other end folded back upon itself at least once.

The invention provides an elongated casing 22 having the portion 24 adjacent one end sealingly compressed together and the portion 26 adjacent the other end also sealingly compressed together. The sac 10 is positioned

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within the casing 22 so that the sealed compressed one end portion 18 is adjacent the sealed compressed portion 24 of the casing 22 and the folded back portion of the sac 10 is adjacent the other portion 26 of the casing 22.

A line of severance, as at 28 and preferably of a width and color as to be readily identified as such, extends transversely of the casing 22 inwardly of and spaced from the sealed compressed one end portion 24 for severing the one end portion 24 from the casing 22.

After severance of the casing 22, as shown in Figure 3, by a pair of scissors 30 or other instrument, the sealed compressed one end portion 18 of the sac 10 is thrust out of the severed one end portion 24 of the casing 22 by means of bimanual compression of the severed one end portion 24 of the casing 22 toward the sealed compressed one end portion 26 of the casing 22. The sealed compressed one end portion 18 of the sac 10 thus exposed can then be seized by the fingers in such fashion as to draw the entire sac 10 out of casing 22 as shown in Figure 4. With the sac 10 thus withdrawn the casing 22 is thrown away.

The sac 10 is then subjected to bimanual manipulation as by compressing the intermediate part of the sac toward the end portion 18 from the end portion 20, resulting in the absorbent tip 16 being projected free of the end portion 20 and ready for use. In Figure 5 it will be seen that the compressed sac part forms a protective sheath for the part of the shank 14 adjacent the closed end portion 18 of the sac 10.

In Figure 6, a modified form of the present invention is shown in which a sac 34, positioned within the casing 22, has a blunt relatively tough sleeve or sheath 36 encompassing the sharp end of the enclosed article, in this case a surgical needle 38, so that the sac 34 and casing 22 are protected against inadvertent puncturing by the needle 38 with a subsequent loss of sterile condition.

The sterile package according to the present invention may be manufactured in many sizes and of such material as desired, although a transparent casing and sac are preferred for ready identification of the enclosed article. Preferably, the sac should be of such a length relative to the casing in which it is to be inserted that its folded over and back portion adjacent one end thereof should be, when the sac is inserted, adjacent to the compressed and sealed one end portion of the casing and the sealed compressed end of the sac adjacent the other sealed and compressed end of the casing. When such dimensions are adhered to, the folded over end portion of the sac is less likely to be unfolded or opened for the inadvertent exposure of the adjacent end of the article contained.

What is claimed is:

A medical apparatus comprising an elongated sterile article having a first sterile, body contacting end and an opposing second end providing a holding means for the article in the application of said first end to a body, a sterile tubular sac protectively enclosing said article, said sac having a first open end folded upon itself so as to be normally closed by a fold means and an opposing second end which is tightly and permanently sealed, said article being positioned in said sac with its first end juxtaposed to the first end of the sac and with its second end juxtaposed to the second end of the sac, said folded first end of the sac being automatically unfolded and spread open by axial movement of the article upon manual manipulation of the sac to produce a relative axial

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movement of the sac and the article in opposite directions thereby exposing said first body contacting end of said article for body contact without being touched by the hands of the user, said first end of said sac forming a protective shield between said first end of said article and a hand of said user when said sac is drawn free of said first end of said article, an outer protective casing enclosing said sac, said casing having a first permanently sealed end and an opposing second permanently sealed end, said second end of said casing being juxtaposed with respect to said second end of said inner sac, and said casing being severable adjacent said second end thereof to permit the withdrawal therefrom of said inner sac by grasping said second end of said sac and pulling out-

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wardly thereon while holding said casing against movement in that direction.

References Cited in the file of this patent

UNITED STATES PATENTS

1,120,549	Schellberg	Dec. 8, 1914
1,782,526	Beardsley	Nov. 25, 1930
1,962,900	Hirsch	June 12, 1934
1,997,443	Waugh	Apr. 9, 1935
2,018,705	Conti	Oct. 29, 1935
2,218,738	Boysen	Oct. 22, 1940
2,325,021	Salfisberg	July 20, 1943
2,542,957	Adams	Feb. 20, 1951