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3,034,508

MOLDED TAMPON APPLICATORS

Filed Oct. 19, 1960

Fig. 1.

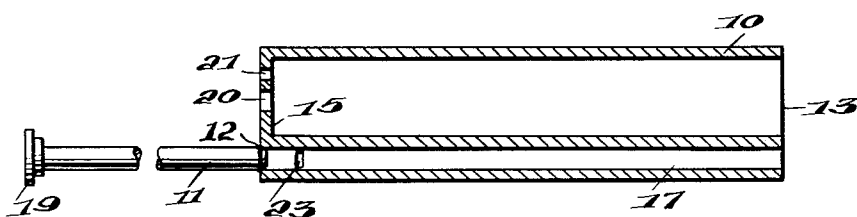


Fig. 2.

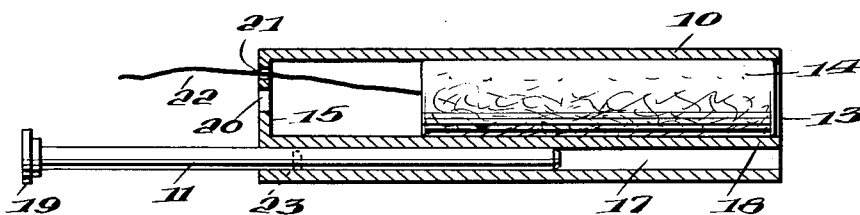


Fig. 3.

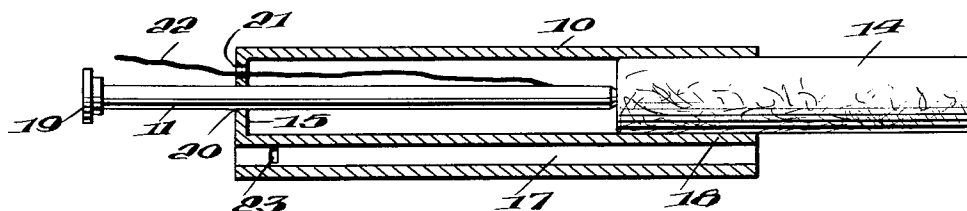


Fig. 4.

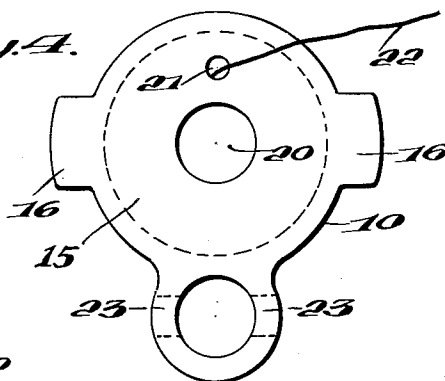
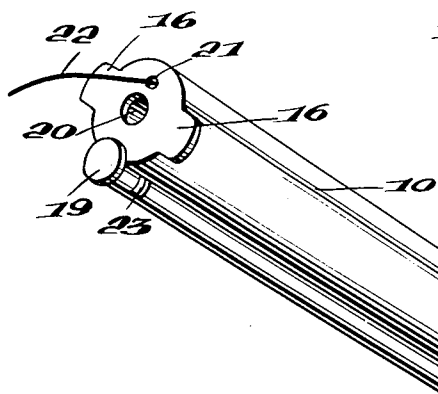


Fig. 5.



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MOLDED TAMPON APPLICATORS

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3 Claims. (Cl. 128-263)

This invention relates to tampon applicators, and among other objects, aims to provide a tampon applicator which is molded as one piece from plastics material and which is adapted to be converted into two pieces by a simple operation by the user; these pieces being a casing for housing and tampon, and an ejector for pushing the tampon out of the casing. Thus the invention aims to provide a tampon applicator so made that an assembly operation is eliminated. A further advantage of the invention is that the one piece construction obviates accidents such as dropping the little ejector, which under the circumstances of the use of the applicator—the place where the use may occur and the state of health of the user—may be quite distressing. Other objects and advantages of the invention will be apparent to those skilled in the art after reading the following description of the preferred form of the invention in conjunction with the accompanying drawings forming a part of this specification.

In said drawings—

FIG. 1 is a longitudinal section through the applicator shown without the tampon, the ejector bar being an integrally molded part of the casing; the scale being enlarged;

FIG. 2 is a view like FIG. 1 but showing a tampon in its initial position within the applicator casing and showing the ejector bar broken away from the casing and telescoped therein to make a smaller package;

FIG. 3 is a view like FIG. 1 but showing the ejector bar moved inside the casing against the tampon, which is part-way out of the casing;

FIG. 4 is an end elevation of the applicator, viewed from the left end of FIG. 3; and

FIG. 5 is an enlarged perspective view of the applicator.

This application is a companion to application Serial Number 63,156 (Case C) filed on October 17, 1960.

Referring particularly to the drawings, the applicator of my invention consists of only two elements, a tubular casing 10 and an ejector bar or plunger 11, which are initially molded so as to be joined together at the flash joint 12, see FIG. 1. Ejector bar 11 is as long as the casing 10. The mold for this device is a simple three draw mold, and the plastics used in the molding may be polystyrene, modified polystyrene, polyethylene, polypropylene, etc.

Casing 10 is essentially a hollow tube, pear-shaped in cross section, open at one end 13 to receive and discharge the tampon 14, which is any well known type of tampon. At the opposite end of the casing an end wall 15 is provided with integral wings or handles 16 projecting outwardly on opposite sides to make it easy to hold the device while operating the ejector bar 11. The casing has a separate compartment 17 extending the entire length of the casing for slidably receiving the ejector bar 11 after the ejector bar has been broken away from the union

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point 12. Compartment 17 is separated by a wall 18 from the tampon-holding chamber.

The ejector bar 11 has a straight shank provided with an integral handle 19 at one end. This handle is pulled when the ejector bar is to be sheared off the union point 12. Then, with the tampon 14 in place, the ejector bar is moved endwise through the bore 20 in the end wall 15 and is pushed against the tampon to eject it, as shown in FIG. 3. A small bore 21 also in end wall 15 receives the usual withdrawal string 22 attached to the tampon and permits the string 22 to follow the tampon as it is discharged from the applicator.

Opening 23 is one of two small openings on opposite sides of the casing used in molding the device but playing no part in the functioning of the applicator.

Suitable provision may be made, when packaging the described applicators, to prevent breaking off the ejector bar or shearing its juncture with the casing, until it is to be used for inserting the tampon. For example, a reinforcement temporarily secured to the casing may brace the projecting ejector bar (not shown). The compartment 17 is very desirable as a space-saving storage place for the ejector after first use, since the applicator can be used more than once.

Having described my invention, I wish it to be understood that this description is merely illustrative, and that the invention may assume other forms within the scope of the appended claims.

I claim:

1. A tampon applicator comprises a tubular casing having a tampon-holding chamber and being open at one end, said open end being adapted to receive and discharge a tampon; an ejector bar integrally united at one end to the end of said casing which is opposite to said open end; both the casing and the ejector bar being of plastics material; the area of union between the casing and the ejector bar being disruptable by a shearing action responsive to a longitudinal stress exerted manually on the ejector bar; said opposite end of the casing having an opening for receiving the ejector bar endwise, thereby permitting the ejector bar to enter the tubular casing and push a tampon housed therein out through said open casing end; and a wall integral with the casing on the inside thereof and providing a longitudinally extending bore for the ejector bar, the latter being telescoped into said bore when it is desired to carry the applicator in a minimum space.

2. The invention defined in claim 1, wherein the area of union between the ejector bar and the casing is located in said longitudinally extending bore at said opposite casing end.

3. The invention defined in claim 1, wherein said opposite casing end is further provided with a pair of outwardly projecting handles, and the ejector bar has an integral handle on the end opposite to the one which is initially attached to the casing.

References Cited in the file of this patent

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