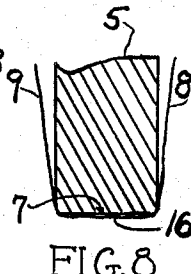
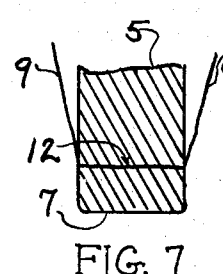
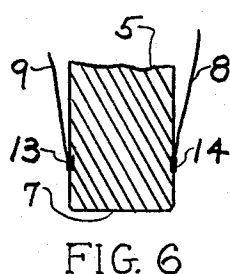
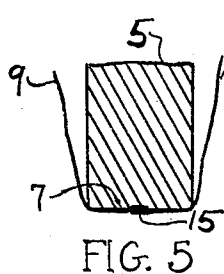
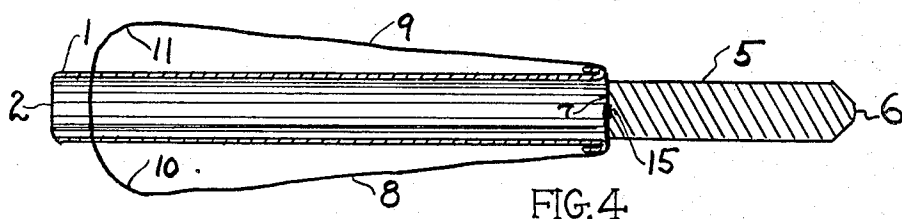
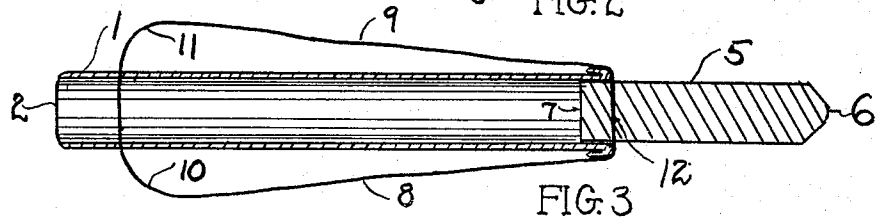
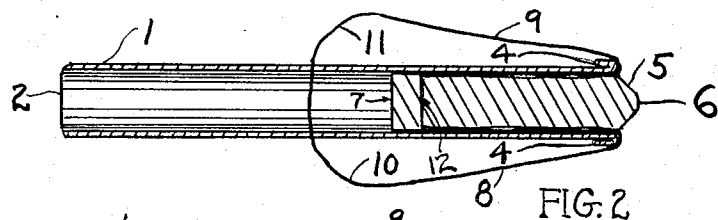
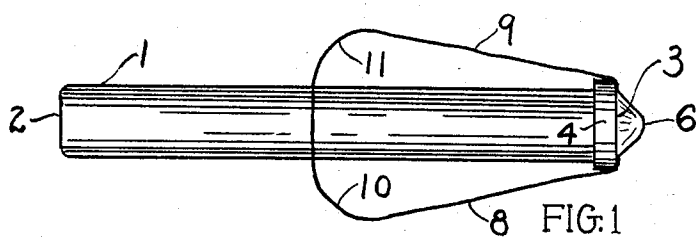


Dec. 30, 1941.

L. S. SEIDLER
DEPOSITOR AND APPLICATOR

2,268,536

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LEON S. SEIDLER

INVENTOR.

BY *A. Feinberg*

ATTORNEY.

UNITED STATES PATENT OFFICE

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DEPOSITOR AND APPLICATOR

Leon S. Seidler, Chicago, Ill.

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2 Claims. (Cl. 128—262)

This invention relates to depositors and applicators and more especially to those used in the application of a remedy into the vagina or rectum, or other cavity of the body.

Self application for personal female hygiene by the fastidious often proves objectionable and where in addition to a dry tampon, medications have been prescribed that melt and diffuse at body temperature, the application without the use of a mechanical depositor or applicator has been ineffective and often impossible.

My invention consists of a receptacle or cartridge for holding a solid expellant or core and a positive means for the extrusion thereof into the required cavity of the body and for the removal therefrom where required.

Devices now in use for catamenial purposes only, deposit a core of absorbent material into the female vagina and are not adapted to be used for the application of medicaments at any prescribed location since they merely expel and cannot control the direction of the core as it leaves the container so that accurate placement is not possible. Without extremely accurate placement such a device may prove medically objectionable.

A primary object of my invention is to produce a device for depositing, applying, and withdrawing that is inexpensive, easy to operate for self application and positive in its action whether it is used with an active or inactive remedy.

In accordance with my invention there is produced a practical device. It is easy to manufacture and low in cost. It is of simple construction and easy to operate. It is positive in action. It is constructed of materials which may be sterilized if required. The core may be catapulted from the cartridge where necessary. For certain purposes, the core may be extruded slowly from the mouth of the cartridge and held firmly in an extruded position so that positive application or accurate deposition may be made with or without pressure at the prescribed location. It may be used as an applicator with an active expellant such as anaesthetics, antiseptics or estrogenic substances or it may be used as a depositor of an inactive expellant such as a tampon or diaphragm.

Further objects of the invention will hereinafter appear from the following description of the preferred embodiments illustrative of the invention and shown in the accompanying drawing in which

Fig. 1 is a side elevation of the device.

Fig. 2 is a longitudinal section through the device showing the core in place in the applicator.

Fig. 3 is a longitudinal section of Fig. 2 showing core expelled to the limit of the draw string.

Fig. 4 is a longitudinal section of the device showing a variation of the extrusion of the core due to an alternate attachment of the draw string.

Fig. 5 is a fragmentary enlarged section of core showing draw string attached to rear end of core as in Fig. 4.

Fig. 6 is same section with draw string attached to sides of core.

Fig. 7 is same section with draw string passing through the core adjacent to the rear end of core as in Figs. 2 and 3.

Fig. 8 is the same section with draw string placed adjacent to core but not attached to it.

The device consists of a hollow tube, comprising a combined container and applicator into one end of which is fitted a snug fitting core to which is attached or associated a draw string or loop so arranged that traction on the draw string will expel the core in whole or in part for internal applications of medicaments or tampons, the draw string later serving as a means of withdrawal of core if required.

Referring to the drawing, the device therein shown as illustrative of my invention, comprises a container or cartridge 1, which is in the form of a hollow tube of any convenient cross section. The sides of tube 1 may be parallel or slightly convergent from end 2 towards end 3.

One end 2, of tube 1, is the so-called stationary end while the other end is the mouth 3, or receiving and expelling end which is constructed with a reinforced lip 4 used as a bearing edge over which traction cords are drawn while in operation. Into mouth 3 is placed a snug fitting core 5, which has a protruding or applicator end 6 and a base 7. The base 7 is inserted into tube 1 through mouth 3. Associated with core 5 are flexible cords 8 and 9 which may also be in the form of a continuous loop as at 10 and 11. This loop may pass through core 5 as at 12; or it may be fastened to the sides of core 5 as at 13 and 14; or it may be fastened to the base 7 of core 5 as at 15; or it may merely be placed adjacent to base 7 of core 5 as at 16.

We may have several different types of core, longitudinal sections of which are shown in Figs. 5, 6, 7, and 8. The traction cords 8 and 9 are fastened to or associated with the cores 5 in various ways depending on the type and material of

core used and on the purpose for which it is to be used.

The tube 1 is always charged with the core 5 by holding the traction cords 8 and 9 longitudinally against and parallel to the sides of the core 5 and away from its base 7. The base 7 is then inserted into the mouth 3 of the tube 1 as in Figs. 1 and 2 with the traction cords 8 and 9 between the core and the tube with the ends of said cords protruding from the mouth 3. These cords are then folded back over the bearing edge 4.

In operation, the index finger and the middle finger are inserted through the loop 9-11-10-8 as at the sections 11 and 10, with the tube 1 resting between the sides of these fingers, the fleshy part of the thumb pressed against the end 2.

The tube 1 is inserted into the cavity in the proper location and to the prescribed depth.

By holding the thumb stationary and drawing the traction cord towards the thumb with the fingers in the loop, the core is expelled from the mouth of the tube.

For a tampon, attachment of the cord as in Fig. 5 will allow the tampon to fall clear of the tube after traction has been applied as in Fig. 4. The tube is then withdrawn and removed. The traction cord can then later be used as a withdrawal cord.

With attachment of the cord to a tampon as in Fig. 6, traction on the cord will allow the tampon to be expelled only as far as points 13 and 14. The portion between 13, 14 and the base 7 will remain in the tube. By maintaining pressure on the cord and on the stationary end, the tampon will remain very firmly and securely on the end of the tube and any medication placed on the tampon can be applied when and where required. The tube and tampon can then be removed as a unit or tube can be removed first and tampon removed later by the traction cord now used as a withdrawal cord.

If a solid medication is used as a core the same procedure just described can be followed by forcing the traction cord through the core as at 12 in Fig. 7. In addition, if the core melts at body temperature the cord can be removed when the core melts leaving the full application inside.

In Fig. 8, the cord is merely placed against the base of the core but is not fastened to it. A quick jerk on the cord will therefore catapult the core entirely free of the tube. The tube and cord are then removed as a unit.

It is apparent that the details of the device described may be varied without departing from the nature or principle of my invention and it is my intention not to limit the invention to the particular details set forth but to describe one method of obtaining the desired end so that said end, being once realized, may be accomplished by changes in the construction and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

Having described the preferred embodiment illustrative of my invention, I claim:

1. A combined container and internal applying device comprising a hollow tube adapted to snugly receive through one end an expellable core and containing the latter, said core having passed through its sides and adjacent to and positioned from its base a combination flexible traction and withdrawal loop, the two sides of said loop being diametrically opposite, extending out through the said receiving end of said tube and being positioned between said tube and said core, said loop being independent of said tube, the two sides of said loop when fully extended and under tension being adapted to hold said extruded core rigidly in place adjacent to the mouth of said tube, the release of tension allowing said tube to be removed.

2. A combined container and internal applying device comprising a cartridge adapted to snugly receive through its mouth an expellable core and containing the latter, said core having two flexible cords attached adjacent to and spaced from its base, said cords extending from said points of attachment, through the mouth of said cartridge, said cords being diametrically opposite and positioned between said cartridge and said core, and being independent of said cartridge, the free ends of said cords being fastened together to form a combination traction and withdrawal loop, the sides of said loop passing over the edge of said mouth so that the direction of traction on said free ends is opposite to the direction of extrusion of said core, the two sides of said loop when fully extended and under tension being adapted to hold said extruded core rigidly in place adjacent to the mouth of said cartridge, the release of tension allowing said cartridge to be removed.

LEON S. SEIDLER.