

[54] **TAMPON INSERTER ARRANGEMENT**

[75] Inventor: **Harish A. Patel**, Neenah, Wis.

[73] Assignee: **Kimberly-Clark Corporation**,
Neenah, Wis.

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128/264, 285, 261

[56] **References Cited**

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Primary Examiner—Richard A. Gaudet

Assistant Examiner—H. J. Recla, Jr.

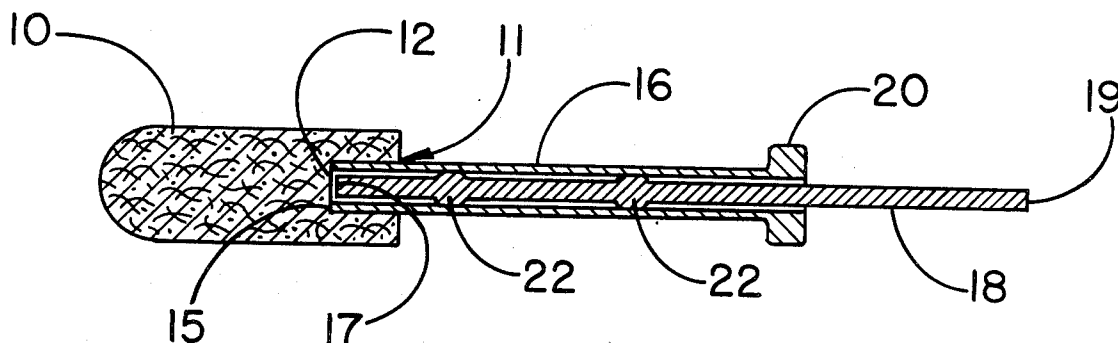
Attorney—Daniel J. Hanlon, Jr., William D. Herrick
and Raymond J. Miller

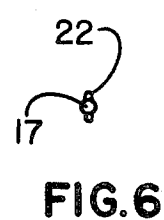
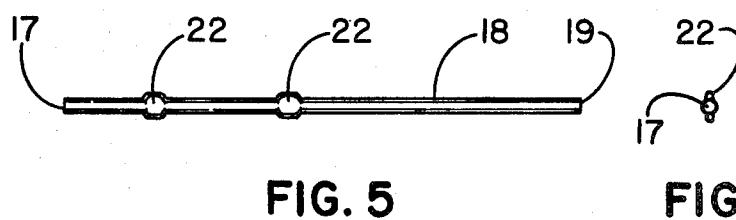
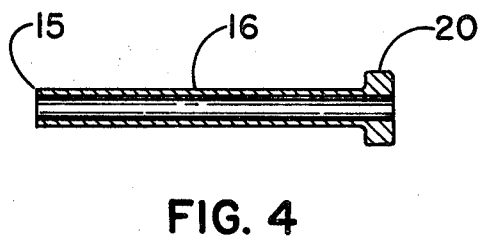
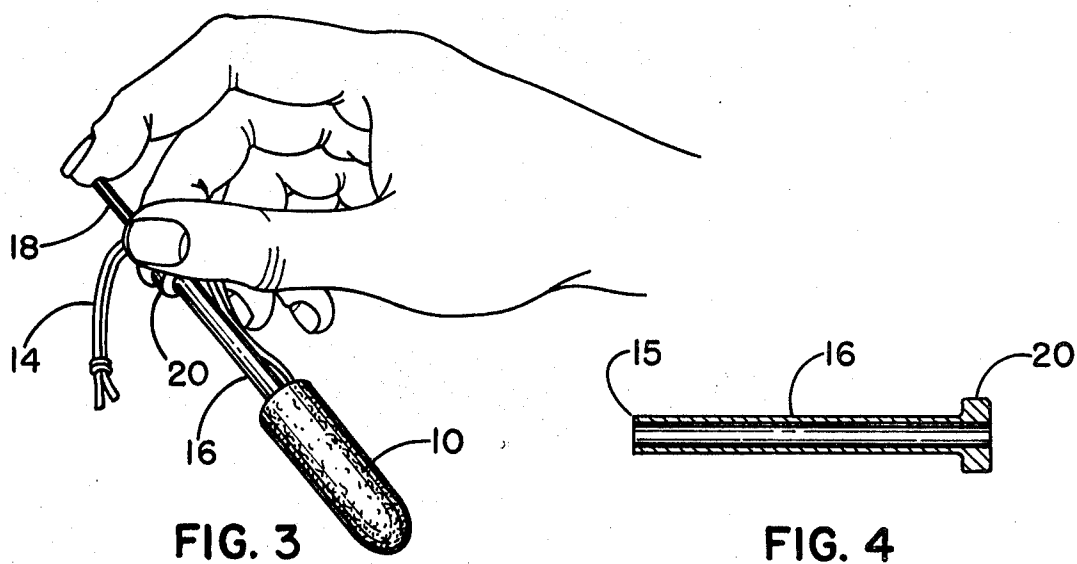
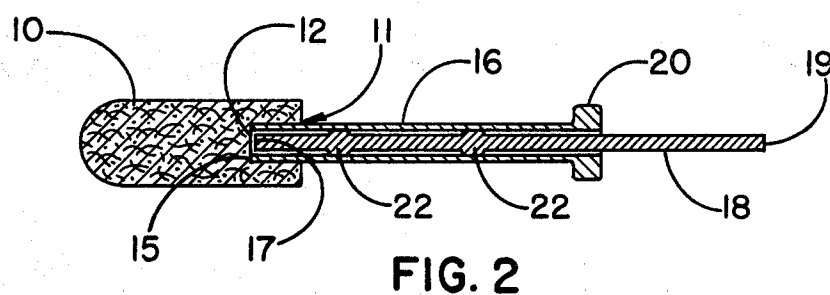
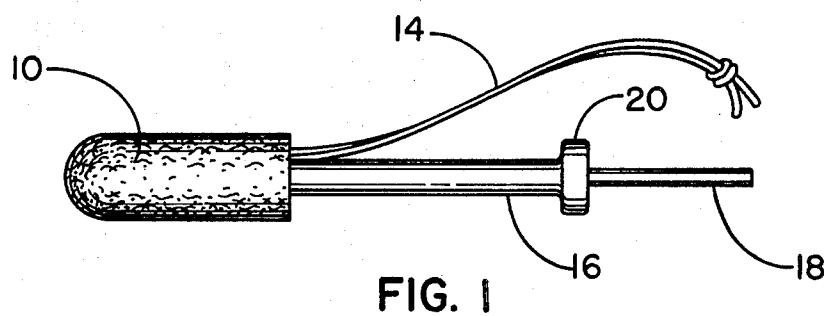
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ABSTRACT

An absorbent tampon having an inserter means removably seated in a socket provided in the tampon base. The inserter means comprises a tubular sleeve which is frictionally held in the socket and surrounds a rod which is slidably disposed inside the sleeve.

5 Claims, 6 Drawing Figures





TAMPON INSERTER ARRANGEMENT

BACKGROUND OF THE INVENTION

Among the internally applied catamenial devices presently on the market there is one type which comprises a compressed round-nosed tampon with an inserter stick removably seated in a socket provided in the base of the tampon. When such a tampon is inserted the frictional grip of the vaginal walls is relied on to maintain the tampon in position while the inserter stick is withdrawn from the socket. It would be desirable to provide a structure which enables the inserter stick to be withdrawn without relying on vaginal wall pressure to hold the tampon in place.

One method of accomplishing this may be found in U. S. Pat. No. 3,351,060 which issued Nov. 7, 1967. This patent shows a tampon in which an inserter rod is removably seated in a socket at the base of the tampon and in which a sleeve is slidably telescoped on the rod. As further defined in that patent, the tampon is first inserted by the user in a conventional manner. After insertion, the outer rear portion of the sleeve is gripped by the thumb and forefinger of one hand to steady the sleeve and the rod is withdrawn by gripping the rear end of the rod with the thumb and forefinger of the other hand pulling the rod from the socket while the front end of the sleeve bears against the base of the tampon to prevent longitudinal movement or displacement.

As is apparent from the above description and associated drawings, the structure as defined in the cited patent requires the use of both hands for rod withdrawal.

The present invention has all of the advantages of positive placement and rod withdrawal referred to in the cited patent, but in addition has the advantage of permitting the user to perform both tampon insertion and rod removal with one hand.

SUMMARY OF THE INVENTION

In this invention there is provided a conventional compressed tampon and associated withdrawal string, with the tampon having a socket provided in its base and an inserter means removably seated in the socket. The inserter means comprises an elongate tubular sleeve with one end frictionally seated in the socket and an elongate rod slidably disposed inside the sleeve. When assembled, the front end of the rod is substantially coterminous with the front end of the sleeve while the rear end of the rod extends beyond the rear end of the sleeve a distance at least equal to the depth of the socket. The rear end of the sleeve may also have a collar or raised portion to facilitate gripping. When inserting the tampon, the rear end of the sleeve is gripped by the user between the thumb and middle finger of one hand with the forefinger of the same hand positioned against the rear end of the rod. After insertion the sleeve is easily pulled rearward by the thumb and middle finger while the rod is held in engagement with the bottom by the pressure of the forefinger against the rear end of the rod. It is thus possible to remove the sleeve from its frictional association with the tampon without displacing the tampon from its original inserted position.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a side view of the tampon and inserter

means of this invention as it appears in assembled form. FIG. 2 is a longitudinal section of the FIG. 1 assembly.

FIG. 3 is a perspective view of the assembly of FIG. 1 as it is held in the hand ready for insertion.

FIG. 4 is a longitudinal section of the sleeve portion of the inserter assembly.

FIG. 5 is a side view of the interior rod portion of the inserter assembly.

FIG. 6 is an end view of the FIG. 5 rod.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in the drawings, a compressed round-nosed tampon 10 is provided with a conventional withdrawal string 14 attached to its trailing end. The base of tampon 10 has drilled or otherwise formed therein a socket 11 with the bottom of the socket indicated at 12. Seated in socket 11 is a tubular sleeve member 16. The forward end 15 of sleeve member 16 bears against bottom 12 of the socket. The outer diameter of sleeve 16 at its forward end is sufficiently large to be held in firm frictional engagement in socket 11. Sleeve 16 is also shown as having an enlarged collar portion 20 to facilitate gripping, although this structure is optional.

Disposed within sleeve 16 is a rod 18. When assembled, the forward end 17 of rod 18 is substantially coterminous with the forward end 15 of sleeve 16. The rear end 19 of rod 18 extends beyond the rear end of sleeve 16 a distance which is at least about equal to the depth of socket 11 and preferably a little longer. Rod 18 is also preferably provided with portions 22 which may be flattened or otherwise provided with an increased diameter in order to bear against the interior walls of sleeve 16 with sufficient pressure to be frictionally held by the walls, while still being capable of sliding inside the sleeve when longitudinal forces are applied as described.

When put to use, the assembly may be gripped as shown in FIG. 3. The rear end 20 of sleeve 16 is grasped between the thumb and middle finger of one hand, and the rear end of rod 18 placed in contact with the forefinger of the same hand. After insertion, light pressure may be exerted against the rear end of the rod by the forefinger while the sleeve is withdrawn from its socket by the thumb and middle finger. Both tampon insertion and rod withdrawal are thereby easily accomplished with one hand.

As indicated earlier, sleeve 16 may have an enlarged portion 20 at its rear end to facilitate gripping thereof, but may also be made without such enlargement. In the latter event, roughening or knurling of the rear end portion of the sleeve may be utilized to aid in providing a non-slip grip.

The sleeve and rod may be suitably made of paper, spirally or convolutely wound into the desired shape, or may be fabricated from plastic.

The sleeve and rod are both shown to be of circular cross section but other suitable configurations may be employed.

What is claimed is:

1. In the combination of a tampon and inserter device in which said tampon has a socket of predetermined depth provided in its base and an inserter assembly is removably seated in said socket, the improvement wherein said inserter assembly comprises an outer sleeve the leading end portion of which is frictionally

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held in said socket and a rod longer than said sleeve is disposed within said sleeve and slidably associated therewith, the trailing end of said rod extending beyond the trailing end of said sleeve, and said rod being longer than said sleeve in an amount at least equal to the depth of said socket whereby said sleeve may be slid rearwardly on said rod to disengage the leading end portion of said sleeve from said tampon socket while the leading end of said rod contacts the bottom of said socket and restrains said tampon from longitudinal movement.

2. The combination tampon and inserter device of claim 1 wherein the leading end of said rod is substantially coterminous with the leading end of said sleeve.

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3. The combination tampon and inserter device of claim 1 wherein said sleeve has an enlarged gripping portion disposed at its rear end.

4. The combination tampon and inserter device of claim 1 wherein said rod has at least one portion which is of larger diameter than the remaining portion of said rod, whereby at least said one portion is held in frictional but slidable engagement with an inside portion of said sleeve.

5. The combination tampon and inserter device of claim 1 wherein said sleeve and said rod are of circular cross section.

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