

April 29, 1958

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2,832,342

CLEANSING DEVICE

Filed March 26, 1956

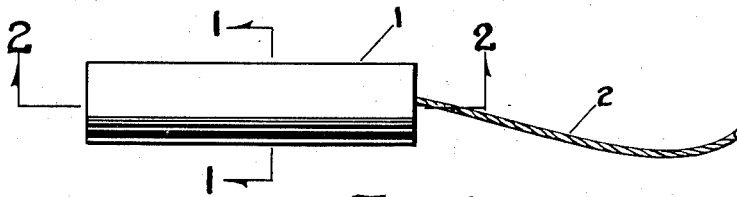


FIG. 1

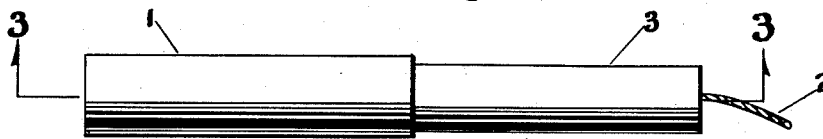


FIG. 2

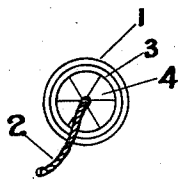


FIG. 3

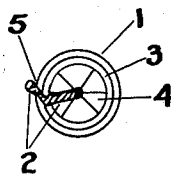


FIG. 4

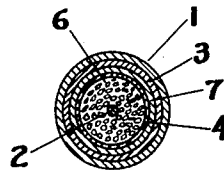


FIG. 5

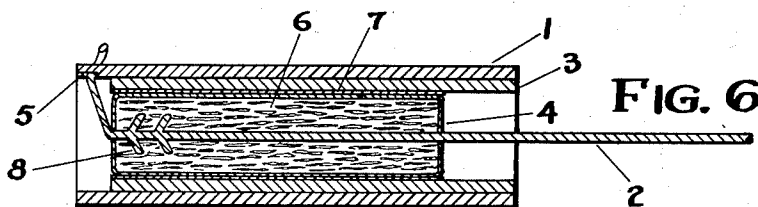


FIG. 6

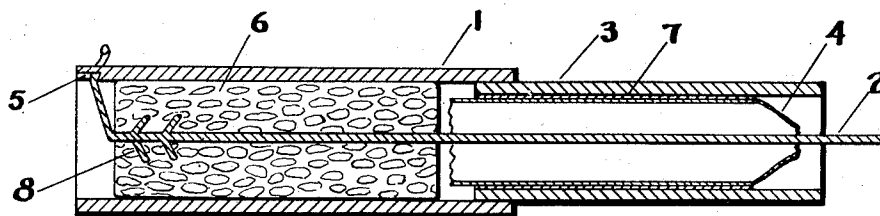


FIG. 7

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2,832,342

CLEANSING DEVICE

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Application March 26, 1956, Serial No. 573,951

3 Claims. (Cl. 128—263)

My invention relates to devices for use in feminine hygiene and more particularly relates to a device for vaginal cleansing.

An object of this invention is to produce a device for cleansing of the vagina by use of an internal absorption device.

A further object of this invention is to provide a device for insertion in the vagina which will have a positive suction action for cleansing of fluids and/or solids.

A further object of the device is to provide a device of the type previously mentioned which may be treated and impregnated with medicinal agents for complete cleansing and/or medication of the vagina.

A further object of this invention is to produce a device which may be used as a contraceptive for those women who cannot medically be permitted to have conception for health reasons.

In the past the most common method of cleansing of the vagina has been the use of hydraulic systems contemplating the use of liquid under pressure for flushing and cleansing of the vagina. Such cleansing system, I have found, is of limited value in that the action of such a system actually has a pressure or forcing effect such that some fluids and impurities may be actually driven into the membranes and forced through the cervix.

It is recognized that there are a number of pads and absorbent devices for use as catamenial pads by internal absorption method. My invention however contemplates something entirely distinct from such devices and is in the distinct field of cleansing and/or medication and is not intended to be used as a catamenial device.

My device is designed to incorporate the use of polyethylene, polyurethane or similar resin materials as the basic pad element. Such materials when slightly moistened have a positive suction action and will actually suck into themselves the surrounding liquid and impurities. In a preferred form my device contemplates a sponge of polyethylene or the like inserted in a telescoping tube arrangement as indicated in the attached drawings which will be described in more detail later and wrapped or otherwise enclosed in a foil or other impervious inner wrapping.

The foil wrapper or other wrapper used is so constructed so as to open to provide an air space at the top and into this air space may be inserted a liquid medicinal or germicidal agent or plain water.

The sponge element itself may be impregnated with a medicinal or germicidal agent at the time of manufacture or need not have any such agent whatsoever.

It is noted that the positive cleansing obtained by the use of my device, operating on a suction basis, does not in any way permit, or cause, forcing of any of the impurities or liquid into the membranes of the vagina or through the cervix. In this connection I have learned that there are certain deposits existing in the male sexual organ, particularly in men who have not been circumcised, which can cause or initiate cancer of the uterus in many cases. Such cancer can also be caused by other

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impurities which may not be thoroughly cleansed from the vagina.

In addition it will be seen that any products in the vagina resulting from intercourse may be removed by the suction action as set forth rather than being forced through the cervix by other means of cleansing.

It is not intended that this device be used for extended periods of time or in connection with periodic menstrual requirements, but that it be used for shorter durations up to and including several hours or overnight.

It will be noted by further reference to the following description and the attached drawings that this device is packed in such a manner that it may be easily and inconspicuously carried, stored and used.

It is to be noted that my particular device embodies both a sponge and a particular and preferred means of packing and using said sponge.

I believe that my particular applicator and packing device as disclosed is in itself a patentable sub-combination, and that my particular applicator may be used for a preferential means of packing and storage of the customary internal absorption catamenial devices.

In this connection it is to be noted that my device for storage and application, telescoping as it does, will provide a most satisfactory container and applicator for any catamenial or similar devices used internally. It will be particularly noted that the telescoping arrangement results in a device a little more than one-half the length of existing devices when packed. The usual packaging arrangement for such devices as known to me consists of two tubes which telescope within each other but the pad or other element contained therein is contained within the outer tube and the inner tube is left protruding from the outer tube at all times.

I contemplate the possibility that my particular packaging and applicator may be used and utilized in any number of similar uses for feminine hygiene.

I have studied the various pads used as catamenial pads for internal use and have found that many of them are very firm as packed, and probably would not expand readily into the outer tube as will my sponge. However, it is felt that my applicator might none-the-less be used if the packing were changed to provide for such expansion, at least for a portion of it. Naturally, such problem does not exist with relation to my overall device, since my sponge will expand freely, especially when moistened as noted.

Reference has been made to the air space into which a liquid may be inserted in the wrapping around the sponge and in this connection it should be noted that a sponge as contemplated by me will create its maximum suction action upon being slightly moistened. Thense, by capillary and other action, any liquids and impurities in which it comes into contact will be drawn inwardly into the interior of the sponge.

Referring now to the attached drawings:

Figure 1 is a plan view of my invention in a closed position;

Figure 2 is a plan view of my invention in an open position;

Figure 3 is an end view looking from the right, of Figures 1 and 2;

Figure 4 is an end view looking from the left of Figures 1 and 2;

Figure 5 is a sectionalized view through the plane 1—1 of Figure 1;

Figure 6 is a sectionalized view through the plane 2—2 of Figure 1;

Figure 7 is a sectionalized view through the plane 3—3 of Figure 1.

Referring in more detail to Figure 1 there is shown the outer cylinder 1 of my device and a cord 2,

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Referring in more detail to Figure 2 there is shown the outer cylinder 1, the inner cylinder 3 withdrawn from its telescoped position within the outer cylinder 1 and in the position in which the device is ready for insertion of the sponge within the vagina. The cord 2 is shown extending from the inner cylinder 3.

Referring in more detail to Figure 3, a foil 4 wrapping is folded at the end or otherwise sealed. The foil 4 forms a complete sealed liner about the sponge which is within the tube 3, in turn within the tube 1. The cord 2 is shown extending through the foil 4.

Referring in more detail to Figure 4 there is shown the outer cylinder 1, the inner cylinder 3, the foil wrapping 4 within the inner cylinder 3 which is folded or otherwise closed at the left end of the device in the same manner as at the right end. At the left end or the end which is inserted within the vagina the cord 2 is shown inserted and fastened within a slot 5 in the outer cylinder 1.

Referring in more detail to Figure 5, the section through 1—1 of Figure 1 there is shown in sectionalized form the outer cylinder 1, the inner cylinder 3, the foil wrapping 4 which is fastened to the inner cylinder 3 by a layer of adhesive material 7, and the sponge 6 with the cord 2 running through it.

Referring in greater detail to Figure 6 which is the section 2—2 of Figure 1; the inner tube 3 is telescoped within the outer tube 1. This is the normal closed or packing position in which the devices are stored until used. The cord 2 is shown extending the entire length of the sponge 6 and extending freely out of the tube 3 at the right end and engaged in the locking and fastening slot 5 at the left end. The foil 4 which is fastened to the tube 3 by adhesive or other means 7 is shown surrounding the sponge 6. The cord 2 is anchored to the sponge 6 by threads or other means 8.

Referring in more detail to Figure 7 no new elements are introduced over Figure 6. However, the inner tube 3 is shown extended from the outer tube 1. The foil 4 has been opened at both ends and the sponge 6 has expanded to fill the outer tube 1.

In application of this device it is anticipated that the right end of the foil wrapping 4 will be opened or unfolded and that the device will be held with the right end uppermost and that a small quantity of water or medicinal or germicidal agent will be poured into the upper portion of the inner tube and foil. This will quickly permeate the sponge 6 and will thereby activate the sponge so it will have a sucking action and also activate any germicidal or medicinal agent within the sponge 6. The foil wrapper 4 can then be refolded or closed at that end and the device may be kept in this manner until it is ready for use. At the time it is to be used the inner tube 3 is gripped on its inner surface by the finger and slid outwardly to the right. The cord 2 being locked in the slot 5 of the outer tube 1 will hold the sponge 6 so that it will break through the left end of the foil 4. Having been compressed upon insertion in the inner tube 3 and having now had a liquid added to it the sponge 6 will expand upon the removal of the inner tube 3 to fill the outer tube 1. The tube 3 is withdrawn beyond the length of the sponge 6 but not completely withdrawn from the outer tube 1. The sponge 6 is inserted for use by inserting the end of the outer tube 1 in the vagina and then pushing the inner tube 3 into the outer tube 1 thus pushing the sponge 6 into position within the vagina. It will be seen that the slot 5 in the outer tube 1 is so directed that it holds the cord 2 from removal towards the upper or right but that it will easily slide out to the lower or left end.

The cord 2 is, of course, ultimately used for convenient removal of the sponge 6.

Although a wide variance may exist in the size of a device of this nature it appears that one generally satis-

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factory size would encompass a compressed sponge about ½ in. diameter and 2 in. long.

It will be noted throughout the within description that reference has been made to foil lining 4 and to the slot 5 with the cord inserted in it as a means of holding the sponge 6 within the tube 1 when the tube 3 is removed for use. It will further be noted that reference has been made to the tubes and to the folding of the foil liner at its ends. It will be obvious to anyone skilled in the art that the sponge 6 may be maintained within the outer tube by various other fastenings or even be shoved out of the tube 3 to the outer tube 1 by the use of a finger or otherwise. Further, it will be noted that the foil wrapper might be made of a plastic or other type material, that the ends may be sealed or may be folded inwardly, and that the wrapper can even be dispensed with. The main advantage of the wrapper is to maintain sterility and to maintain the moisture within the sponge between the times when the moisture is inserted into the sponge and prior to its use. It will also be clear that the cord 2 is not necessary to the functioning of the sponge but makes a convenient means of removal and is therefore a preferred method. It is further noted that a number of means can be devised to fasten the cord within the sponge if it is to be so used. It will be further noted that the tubes 1 and 3 might be formed of paper, plastic or any other material and might be formed in a variety of different cross section shapes of which round seems to be most preferable. It further may be noted that the device could consist merely of an outer tube with or without foil wrapping with the sponge therein for insertion by merely expelling said sponge from said tube by use of a finger or other instrument. It is even conceivable that the sponge such as I have described could be set without a means of insertion employing the tube or tubes as set forth but in said circumstance it would probably be most difficult and inefficient in the application as described.

I have illustrated and described a preferred form of the present invention, in which the exact measurements, configurations, and relationships are for illustrative purposes only and are not intended to limit my invention. While there are disclosed above but a limited number of embodiments of the structure, process, and product of the invention herein presented, it will be apparent to those skilled in the art that numerous changes, substitutions, omissions and additions may be made, and that it is possible to produce still other embodiments without departing from the inventive concept herein disclosed. It is desired therefore that only such limitations be imposed upon the appended claims as are stated therein or required by the prior art.

I claim:

1. A device of the class described consisting of: an outer tubular shell; an inner tubular shell telescoped within said outer shell; a sanitary and impervious wrapping fastened to the inner surface of said inner tubular shell; a sponge located within and wrapped in said wrapper; and a cord fastened to said sponge and extending from one end thereof.

2. A device of the class described comprising an outer tubular shell; an inner tubular shell telescoped within said outer tubular shell; a wrapper fastener to the inner surface of said inner tubular shell; sponge means located within said wrapper; and a cord running the length of said sponge means and extending from both ends thereof, one of said ends being removably fastened to said outer tubular shell and the other end of said cord extending loosely from the end of said inner tubular shell.

3. A device of the class described comprising an outer tubular shell; an inner tubular shell telescoped within said outer tubular shell; a wrapper fastened to the inner

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surface of said inner tubular shell; sponge means impregnated with germicidal and medicinal agents located within said wrapper; and a cord running the length of said sponge means and extending from both ends thereof, one of said ends being removably fastened to said outer tubular shell and the other end of said cord extending loosely from the end of said inner tubular shell.

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