July 6, 1954 E. C. BROWN 2,682,875

CATAMENIAL TAMPON

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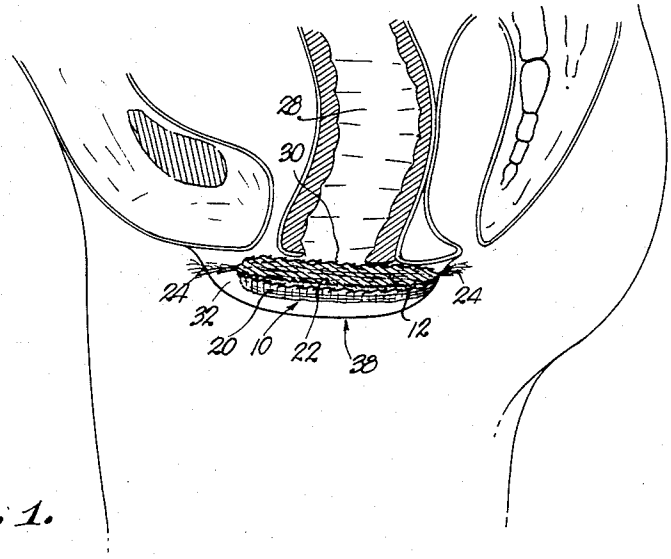


Fig. 1.

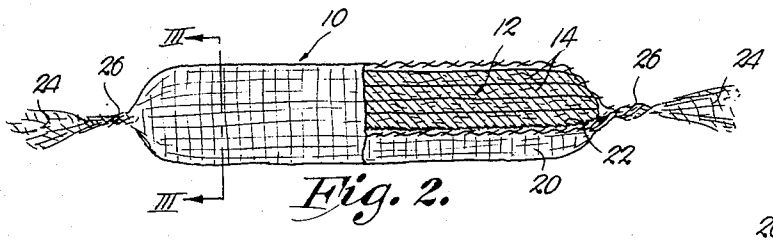


Fig. 2.

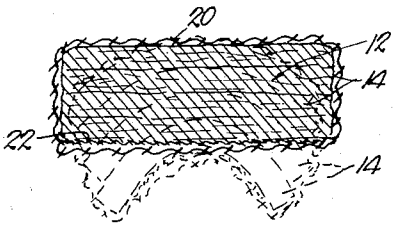


Fig. 3.

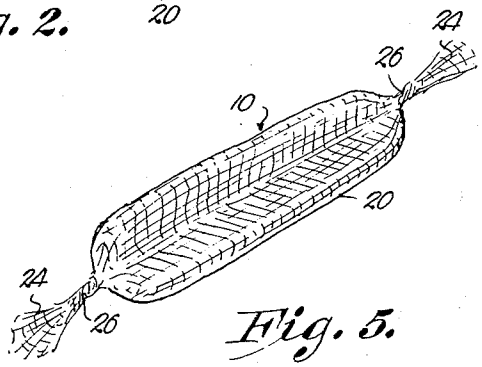


Fig. 5.

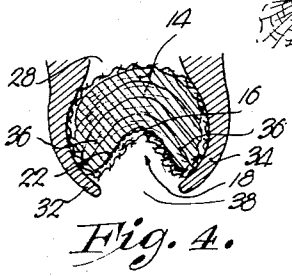


Fig. 4.

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CATAMENIAL TAMPON

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6 Claims. (Cl. 128—285)

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This invention relates to a catamenial appliance in the nature of a tampon adapted for positioning in transverse relationship to the vagina orifice in covering relationship thereto, and adapted to engage the folds of integument forming the said orifice when in place supported solely by the labia of the vulva.

It is the primary object of the present invention to improve upon the tampon forming the subject matter of my co-pending application, Serial No. 239,973, filed August 2, 1951, now U. S. Patent No. 2,629,381, this being a continuation-in-part thereof.

It is the most important object of this invention to provide a tampon of the aforementioned character that includes an elongated pad that is folded longitudinally to present a groove in one face thereof and having a foraminous cover to limit the extent of its tendency to unfold, the latter characteristic of the pad serving to render the same self-adjusting and therefore, capable of self-conforming to present a proper fit for its intended purpose.

Another object hereof is to provide an elongated pad for use as a tampon to be positioned in the manner initially set forth and having a longitudinal groove that is lined with a material that is flexible, yet impervious to the passage of liquid collected by the highly absorbent pad itself.

Another object hereof is to provide a catamenial appliance wherein the pad thereof is made from a plurality of superimposed laminae which, when folded on the longitudinal axis of the pad, presents either a V-shaped, U-shaped or concave groove, the lining of the groove being held in place by a foraminous cover that serves the additional purpose of holding the laminae in the desired partially folded condition.

Still further objects of this invention include the way in which the foraminous cover made from any suitable flexible material has the ends thereof twisted to hold the pad and the liner in place; the way in which said ends extend beyond the pad to facilitate handling of the appliance; and many more minor objects, all of which will be made clear as the following specification progresses, reference being had to the accompanying drawing, wherein:

Figure 1 is a cross-sectional view through a catamenial tampon made pursuant to the present invention, illustrating the same in position covering the vagina orifice.

Fig. 2 is an enlarged, side elevational view of the tampon, parts being broken away and in section for clearness.

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Fig. 3 is an enlarged, transverse, cross-sectional view taken on line III—III of Fig. 2.

Fig. 4 is a transverse, cross-sectional view through the tampon and through the vulva with the tampon in place therewithin; and

Fig. 5 is an inverted, perspective view of the catamenial tampon.

The catamenial tampon hereof is broadly designated by the numeral 10 and includes an elongated pad 12, that is made up of a number of superimposed, initially flat, rectangular laminae 14 of highly absorbent cotton cellulosic material or other suitable loosely packed substance. Thus, pad 12 is substantially rectangular in cross-section as shown in Fig. 3 of the drawing prior to partial folding thereof on its longitudinal axis on a line of fold 16 presenting a longitudinal groove 18 in the normally lowermost face thereof that is preferably arcuate in cross-section.

The pad 12 is held in such partially folded condition by a foraminous, highly flexible covering 20 that is preferably made from loosely woven gauze or similar absorbent material that will not hinder the function of pad 12 in absorbing menstrual discharge. The fabric covering 20 is folded upon itself within the groove 18 as shown in Fig. 4 of the drawing, in covering relationship to an elongated lining 22 conforming in shape to, and disposed within the groove 18, the covering 20 thereby serving the additional function of holding the liner 22 in place. The liner 22 is appreciably less absorbent than the pad 12 and to this end, it is preferred that the same constitute material so treated as to render the same virtually impervious to passage of liquid therethrough. Such materials are readily available on the open market and are commonly employed in this field. Cellulosic materials are particularly well adapted for treatment to render the same suitable for preventing leakage of coagulable discharge. However, the selection of materials for pad 12 and liner 22, or treatment thereof to attain the wide difference in absorptive qualities thereof, forms no part of the present invention and may be varied as desired. The lining 22 should remain soft and flexible for comfort and avoidance of injury and irritation when the tampon is placed in use.

By virtue of the provision of the covering 20, it is unnecessary to affix the liner 22 to the pad 12 within the groove 18, but such joinder may be used if so desired. The covering 20 extends outwardly beyond the proximal ends of the pad 12 presenting a pair of ends 24 that may be grasped between the fingers of the user to facilitate in-

sertion and removal. The ends 24 are each twisted as at 26, thereby binding the pad 12 and the liner 22 tightly in place so as to hold the pad 12 against its tendency to unfold.

The concavo-convex tampon 10 is placed in use in the manner illustrated in Figs. 1 and 4 of the drawing, wherein the female genital organs are clearly illustrated. Vaginal passage or cavity 28 has its orifice 30 completely covered by the tampon 10 through direct engagement of the latter with the folds of integument forming the orifice 30, it being noted in Fig. 1 of the drawing, that the tampon 10 is disposed in transverse relationship to the orifice 30 with the longitudinal axis of the tampon 10 substantially intersecting the longitudinal axis of the vaginal cavity 28.

It is contemplated that the entire tampon 10, with the exception only of the extremities of ends 24, be enclosed by the external female genital organs and particularly between the labia 32 and 34 of the vulva. As shown in Fig. 4 of the drawing, labia 32—34 completely surround the tampon 10 transversely thereof, thereby holding the tampon 10 in closing relationship to the orifice 30. Pad 12 is therefore, in a position to receive and absorb the menstrual discharge from cavity 28 and the lining 22 presents an impediment to the escape from the vulva between said labia 32—34 of menstrual discharge collected by pad 12, particularly within opposed pocket-like portions 36 on opposite sides of the lining 22. By virtue of the fact that the pad 12 tends to spring outwardly to its normal initially flat condition, the tampon 10 will engage the inner walls of the labia 32—34 as well as the passage 28 as orifice 30 and thereby prevent secretion of the menstrual discharge toward opening 38 between the proximal edges of labia 32—34. The interengagement of the tampon 10 with the inner walls of the vulva, aided by the natural moistness of such walls, serve to cause the tampon to cling thereto and in place, as illustrated.

The extended ends 24 not only facilitate the insertion and removal of the tampon 10, but indicate the necessity of change by virtue of becoming moist and discolored through capillary action since the entire covering 20 is in direct engagement with the absorbent material forming the laminae 14 of the pad 12.

Perhaps the most advantageous feature of this invention emanating from the provision of ends 24 is that both of the twisted portions 26 are in effect grasped or held by the labia 32—34 between which such twisted portions 26 are disposed, thereby serving to hold the tampon 10 in place in the manner illustrated, notwithstanding various positions the user may assume during utilization thereof.

By virtue of the provision of liner 22, the entire pad 12 will become completely saturated before necessity of change. Liner 22 tends to diffuse the liquid throughout the pad 12 and prevents the tendency of the liquid to channel downwardly through the center of pad 12 where leakage would occur long before the entire pad 12 becomes fully saturated.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. A catamenial tampon adapted for insertion between the labia of the vulva for sole support thereby in intersecting covering relationship to the vagina orifice, said tampon comprising an elongated pad provided with a downwardly-facing, longitudinally straight, transversely V-shaped groove extending longitudinally throughout the length of the pad, and a transversely convex, longitudinally straight uppermost face, uniformly concentric with the longitudinal axis of the pad throughout the length of said face, coextensive in length with the pad, and provided with a pair of opposed, parallel edges merging with the groove; a lining within the groove; and means for holding the lining within the groove, said pad being appreciably more absorbent than the lining.

2. A catamenial tampon adapted for insertion between the labia of the vulva for sole support thereby in intersecting covering relationship to the vagina orifice, said tampon comprising an elongated pad provided with a downwardly-facing, longitudinally straight, transversely V-shaped groove extending longitudinally throughout the length of the pad, and a transversely convex, longitudinally straight uppermost face, uniformly concentric with the longitudinal axis of the pad throughout the length of said face, coextensive in length with the pad, and provided with a pair of opposed, parallel edges merging with the groove; a lining within the groove; and a flexible, foraminous pad enclosure for holding the lining within the groove, said pad being appreciably more absorbent than the lining.

3. A catamenial tampon adapted for insertion between the labia of the vulva for sole support thereby in intersecting covering relationship to the vagina orifice, said tampon comprising an elongated pad provided with a downwardly-facing, longitudinally straight, transversely V-shaped groove extending longitudinally throughout the length of the pad, and a transversely convex, longitudinally straight uppermost face, uniformly concentric with the longitudinal axis of the pad throughout the length of said face, coextensive in length with the pad, and provided with a pair of opposed, parallel edges merging with the groove; a lining within the groove; and a flexible, foraminous pad enclosure for holding the lining within the groove, said enclosure having opposed ends extending outwardly beyond the proximal ends of the pad, said ends being twisted to hold the pad tightly within the enclosure, said pad being appreciably more absorbent than the lining.

4. A catamenial tampon adapted for insertion between the labia of the vulva for sole support thereby in intersecting covering relationship to the vagina orifice, said tampon comprising a plurality of identical, superimposed, rectangular laminae, presenting an elongated pad, said pad being provided with a downwardly-facing, longitudinally straight, transversely V-shaped groove extending longitudinally throughout the length of the pad, and a transversely convex, longitudinally straight uppermost face, uniformly concentric with the longitudinal axis of the pad throughout the length of said face, coextensive in length with the pad, and provided with a pair of opposed, parallel edges merging with the groove; a lining within the groove; and means for holding the lining within the groove, said pad being appreciably more absorbent than the lining.

5. A catamenial tampon adapted for insertion between the labia of the vulva for sole support thereby in intersecting, covering relationship to the vagina orifice, said tampon comprising a plurality of superimposed laminae of loosely packed, highly absorbent material, presenting a single,

elongated pad having a longitudinal line of fold, presenting a groove coextensive in length therewith and disposed in the normally lowermost face of the pad; means for holding the pad against unfolding; and an imperforate lining within the groove, presenting an impediment to the escape from the vulva between said labia of menstrual discharge collected by said pad.

6. A catamenial tampon adapted for insertion between the labia of the vulva for sole support thereby in intersecting, covering relationship to the vagina orifice, said tampon comprising a plurality of superimposed laminae of loosely packed, highly absorbent material, presenting a single, elongated pad having a longitudinal line of fold, presenting a groove coextensive in length therewith and disposed in the normally lowermost face of the pad; an imperforate, flexible, waterproof

lining within the groove; and a flexible, foraminous enclosure covering the pad and the lining, said enclosure having opposed ends extending outwardly beyond the proximal ends of the pad, said ends being twisted to hold the lining in the groove, the pad against unfolding, and the laminae against separation.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,974,578	Medoff	Sept. 25, 1934
2,328,795	Finks	Sept. 7, 1943
2,629,381	Brown	Feb. 24, 1953

FOREIGN PATENTS

Number	Country	Date
282,447	Great Britain	May 24, 1928