ABSTRACT OF THE DISCLOSURE

A sanitary pad adapted to be positioned over the vaginal canal of a woman during menstruation and a catamenial tampon extending from the central portion thereof which consists of cylindrical portion which is adapted to be positioned upwardly within the vaginal canal of a woman during menstruation and has a lower frusto-conical shaped portion with its larger end being merged with the cylindrical portion of the tampon and its lower portion being connected to pad in such a manner that a major portion of the tampon is adapted to draw excess menstrual fluid from the cylindrical portion of the tampon to the sanitary pad to be absorbed thereby. Because of the comparatively small diameter of the frusto-conical portion of the tampon which is connected to the sanitary pad, it does not block with excessive pressure against the sphincter muscles when the device is applied to a woman during her menstrual period.

My invention relates to the combination of a sanitary pad and a catamenial tampon in which that portion of the tampon which is connected to the sanitary pad is so shaped that it may be held within the vaginal canal of a woman during her menstrual period without discomfort to the sphincter muscles and in which the sanitary pad is associated with the catamenial tampon in such a manner that it will absorb any menstrual fluid that passes outwardly from the tampon.

Catamenial tampons which have heretofore been provided have either been utilized by themselves or have been secured to a sanitary pad. When catamenial tampons are utilized by themselves, however, they do not generally have sufficient absorptive capacity to retain all the menstrual fluid and when they have been utilized in combination with sanitary pads, they have been shaped in such a manner that when placed in the vaginal canal, the portion of the tampon that bears against the sphincter muscles at the entrance of the vaginal canal causes discomfort to the wearer.

In accordance with the present invention, I have provided a device including a combined sanitary pad and a catamenial tampon in which the tampon is so shaped that when inserted in the vaginal canal, it presses only lightly against the sphincter muscles at the entrance to the vaginal canal and consequently does not cause discomfort. In my improved construction, a catamenial tampon is secured to the sanitary pad in such a manner that any menstrual fluid which is not absorbed by the tampon will be absorbed by the sanitary pad secured thereto.

It is therefore an object of my invention to provide in combination a device consisting of a catamenial tampon and a sanitary pad connected to the tampon in which the tampon is shaped in such a manner that the portion of the tampon which engages the sphincter muscles at the entrance of the vaginal canal when the tampon is inserted in place during the menstrual period is not sufficient to cause discomfort.

Another object of my invention is to provide the combination of a sanitary pad and a catamenial tampon in which the tampon is of sufficient length that a major portion of the menstrual fluid will be absorbed by the tampon but in which the sanitary pad is so connected to the tampon and is formed of such material that excess flow of the menstrual fluid over that absorbed by the tampon will be absorbed by the sanitary pad and consequently clothes worn over the sanitary pad will not be soiled.

My invention will be better understood by reference to the accompanying drawings in which:

FIG. 1 is a plan view of the combined sanitary pad and tampon embodying my invention;

FIG. 2 is a side elevational view of the pad and tampon shown in FIG. 1;

FIG. 3 is a cross sectional view taken on a plane passing through the line 3—3 of FIG. 1;

FIG. 4 is a cross sectional view taken on a plane passing through the line 4—4 of FIG. 2;

FIG. 5 is a plan view of a layer of cotton batting for use in forming a portion of the tampon;

FIG. 6 is an enlarged cross-sectional view of the tampon;

FIG. 7 is a view showing how the tampon may be connected to the sanitary pad; and

FIG. 8 is a modified cross-sectional view showing how the tampon may be connected to the sanitary pad.

As shown in the drawings, a sanitary pad 1 is provided to the central portion of which a catamenial tampon 2 is secured. The size of the sanitary pad may of course be varied. It should, however, be of sufficient width to cover the vestibule to the vaginal canal and of sufficient length to absorb any menstrual fluid that may pass through the tampon. It may, for instance, range in length from approximately eight to ten inches and in width from approximately two to three inches. As illustrated, belts 3 and 3a may be secured to the opposite ends of the pad for fastening the pad to the body.

As shown in FIGS. 3 and 4, the sanitary pad includes layers 4 and 5 of a compressed absorbent material, such as cotton, which extend around relatively thick layers 6 and 7 of a similar absorbent material. The outer layers 4 and 5 are comparatively thin and to enable them to be clearly shown, the scale is enlarged. The entire structure is held together by an outer layer 8 of cotton gauze, the thickness of which is also enlarged. It will of course be understood that the sanitary pad is not only for the purpose of limiting the distance the tampon may be inserted in the vaginal canal but is also for the purpose of absorbing any excess flow of menstrual fluid that is not absorbed by the tampon.

To provide a tampon that does not exert undue pressure upon the sphincter muscles leading into the vaginal canal, the outer porton is cylindrical or is substantially cylindrical in shape as indicated by the numeral 9 and terminates in a portion 10 which is frusto-conical in shape and which may be secured in any suitable manner to the sanitary pad 1, such as by stitching as indicated by the numeral 11. The tampon may of course be made in a plurality of lengths depending upon the length of the vaginal canal of different women. For instance, it may be made in lengths varying from approximately two and one-half to three and one-half inches and while my invention is not to be limited to the particular method of preparing the catamenial tampon, as shown, a cylindrical or substantially cylindrical core portion 12 is formed of an absorbent material such as cotton batting and a thin layer of cotton batting 13 is wound around the cylindrical core portion 12 with the wide end 14 of the layer 13 forming the first turn 16 around the core 12 as shown in FIG. 6. Layer 13 has an inclined side portion 17 so that the lower end of the following turns will terminate at progressively higher distances from the lower end of the core 12. A layer of cotton gauze 17 is then wound around the tampon to provide the cylindrical por-
tion and the frusto-conical shaped portion which terminates in a flat end portion.

The frusto-conical shaped portion of the tampon may be connected to the sanitary pad in any desirable manner, such as by stitching at 11 as shown in FIG. 7. The distance the tampon is inserted in the vaginal canal will of course be limited by the sanitary pad and consequently the conically-shaped portion of the tampon will engage the sphincter muscles and will not cause discomfort because this portion of the tampon is smaller in diameter than the remainder of the tampon and consequently may be worn in comfort. The combined catamenial tampon and sanitary pad will also be completely sanitary because menstrual fluid absorbed by the tampon will be protected from the atmosphere by the sanitary pad and will not become offensively odorous and the remainder of the menstrual fluid will be absorbed by the inner portion of the sanitary pad which is likewise substantially free from air.

If desired, the inclined edge of the cotton batting shown in FIG. 5 may be more pronounced than shown to provide a tampon having a somewhat longer conical portion which portion as shown in FIG. 8 may extend through an opening in the outer layer of gauze and through at least a portion of layers 6 and 7 of the cotton batting. In such case, the tampon is stitched or otherwise secured to the outer layers of gauze and also to the cotton batting in a manner somewhat similar to that shown in FIG. 7.

What I claim is:

1. The combination of a device including a sanitary pad composed of a flat absorbent material of substantial length and sufficient width to fit over and beyond the vaginal canal of a woman to which it is applied and a catamenial tampon connected to and extending from substantially the central portion of said pad, said tampon consisting of a cylindrical portion and a frusto-conical shaped portion both formed of an absorbent material, said cylindrical portion being spaced from the sanitary pad and shaped to extend a substantial distance into the vaginal canal of a woman to which it is applied and said frusto-conical shaped portion having its enlarged end portion merged with the cylindrical portion and its smaller flat end portion connected to the sanitary pad and arranged to extend between the sphincter muscles of a woman to which the tampon is applied and the small flat end of the frusto-conical portion of the tampon being connected to the sanitary pad over a sufficient area to draw excess menstrual fluid absorbed by the cylindrical portion of the tampon outwardly through the frusto-conical portion of the sanitary pad for absorption thereby.

2. The combination as specified in claim 1 in which the sanitary pad consists of an outer layer of cotton gauze and a plurality of layers of cotton padding in which the outer gauze layer and at least one layer of the cotton padding have aligned openings therein and in which the small end of the frusto-conical portion of the tampon extends into the openings in the gauze and into at least one layer of the cotton batting to provide a substantial area of contact between the frusto-conical portion of the tampon and the sanitary pad through which menstrual fluid may flow from the frusto-conical portion of the tampon into the sanitary pad.

3. The combination as specified in claim 1 in which the length of the tampon varies from approximately two and one-half to three inches and the length of the sanitary pad varies from eight to ten inches and its width varies from approximately two to three inches.

References Cited

UNITED STATES PATENTS

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<tr>
<th>Number</th>
<th>Date</th>
<th>Inventor</th>
<th>Status</th>
</tr>
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<tr>
<td>2,092,346</td>
<td>9/1937</td>
<td>Arone</td>
<td>128—290</td>
</tr>
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<td>2,331,355</td>
<td>10/1943</td>
<td>Strongson</td>
<td>128—290</td>
</tr>
<tr>
<td>3,183,969</td>
<td>9/1965</td>
<td>Roehr</td>
<td>128—290</td>
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