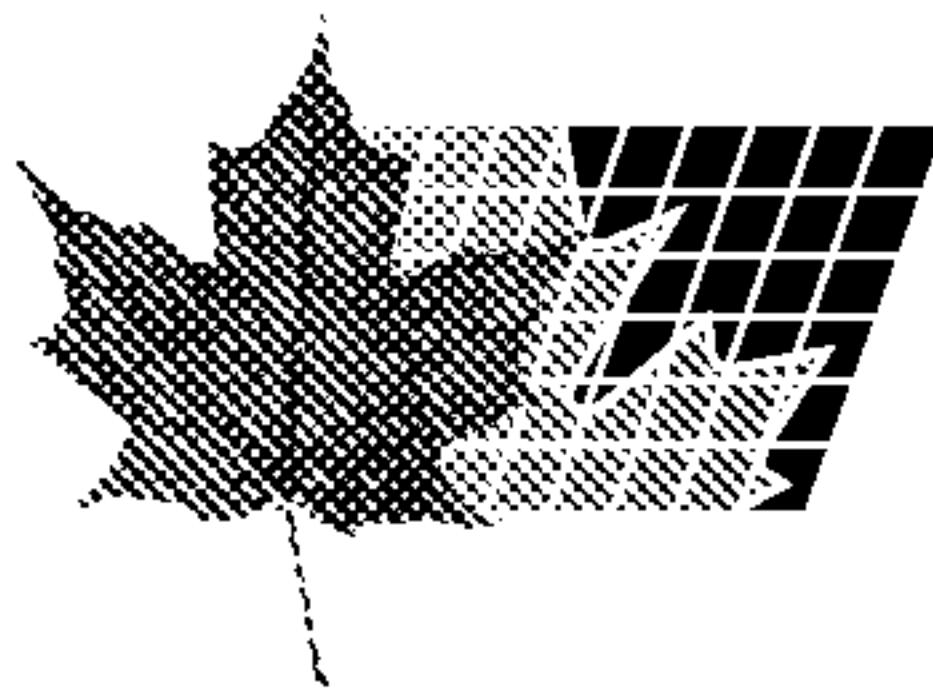




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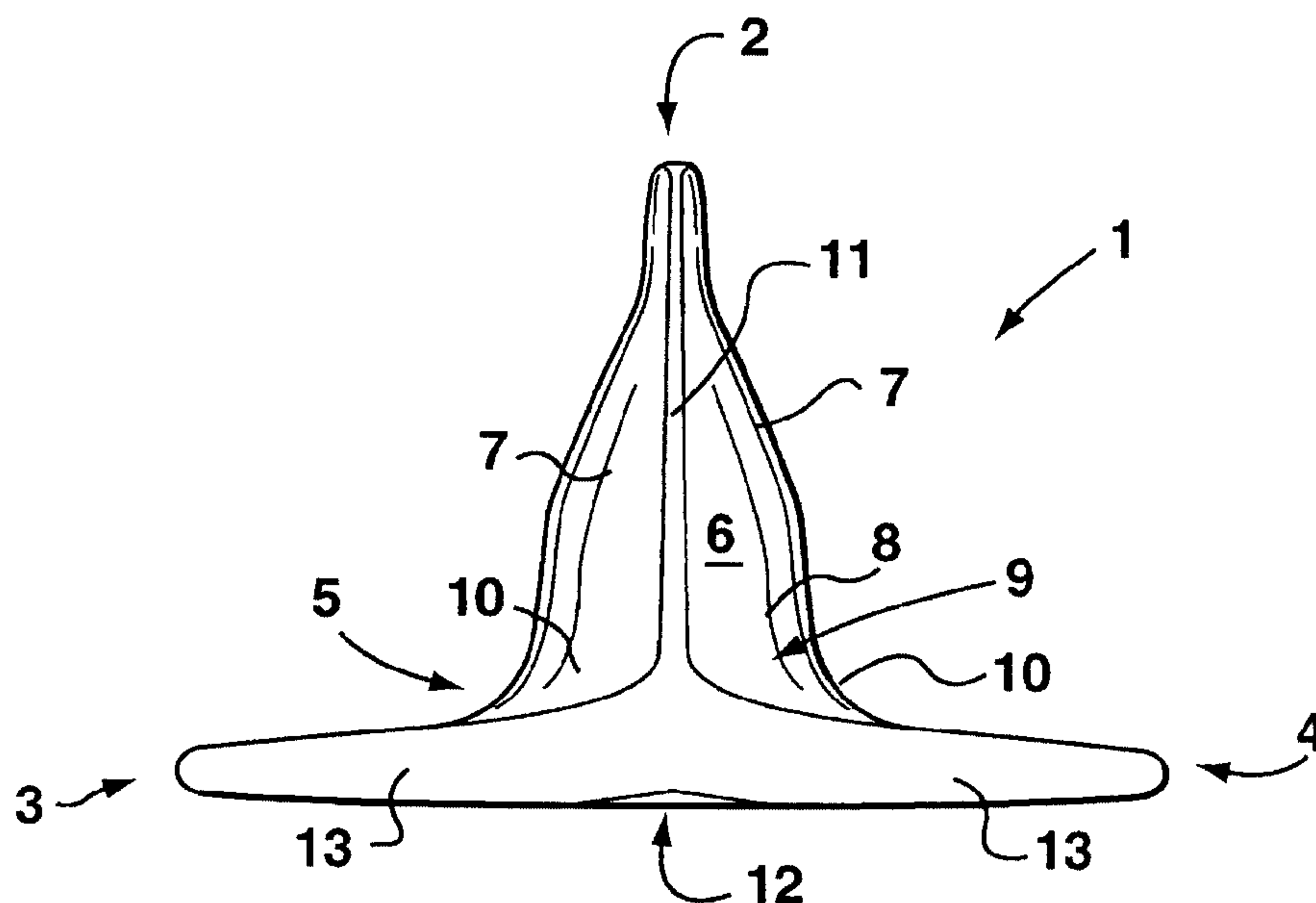
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(54) **PRODUIT D'HYGIENE MENSTRUELLE**

(54) **MENSTRUAL HYGIENE PRODUCT**



(57) A feminine menstrual hygiene product has an integrally formed vulva insert with a vertically extending process and laterally extending processes. The laterally extending processes are comprised of discharge-absorbent padding adapted to exteriorly laterally overplay the labia majora along at least a portion of the vulva extending between the mons pubis and the posterior end of the vestibule. The vertically extending process includes a centrally-raised contoured portion which comprises an absorbent, vestibular-resident padding that is operable to extend in substantial vaginal-orifice-occluding relation in a generally sealing, at least partially frictionally engaged, removably-interfitted position between opposed ones of minor labial folds, with the laterally extending process cooperably arranged exteriorly of the minor folds, in laterally-extending, labia majora-superposed relation.

TITLE

Menstrual Hygiene Product

ABSTRACT

5 A feminine menstrual hygiene product has an integrally formed vulva insert with
a vertically extending process and laterally extending processes. The laterally extending
processes are comprised of discharge-absorbent padding adapted to exteriorly laterally
overplay the labia majora along at least a portion of the vulva extending between the
mons pubis and the posterior end of the vestibule. The vertically extending process
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relation in a generally sealing, at least partially frictionally engaged, removably-interfitted
position between opposed ones of minor labial folds, with the laterally extending process
cooperably arranged exteriorly of the minor folds, in laterally-extending, labia majora-
15 superposed relation.

FIELD OF THE INVENTION:

The present invention relates to menstrual hygiene products, and especially to a vulva insert pad.

5 BACKGROUND OF THE INVENTION:

A number of absorbent pad constructions for use in various personal hygiene purposes are known in the art. Many such are adapted in one way or another to meet the particular needs that attend women's menstrual cycle and the periodic uterine efflux that typically characterizes one portion of that cycle.

10 The sanitary pads currently available for that purpose, are unfortunately inadequate to meet many women's needs. Leakage often results when a sanitary napkin shifts, (eg bunches up and/or twists) from its intended position, and this commonly results in embarrassment, as well as in staining of clothing and bedding. The need for an improved absorbent pad construction accordingly remains largely unfulfilled.

15 For example, most sanitary products still depend on a large mat-like structure adapted to be worn between the legs, and which extends over a large area surrounding the vulva. These products are large, uncomfortable, and place certain constraints on the clothing that a woman can wear while keeping the mat inconspicuous. Moreover even these bulky products are not adequate for the purpose of confining the menstrual flow,
20 and they are therefore often used in combination with other products such as tampons.

More recent advances in the design and construction of this type of pad product have been focused on producing thinner, and more absorbent products. This has entailed the increased manufacturing costs of loading the pad with absorbent chemicals such as

gel forming, cross linked starches or the like. Moreover, the thinner pads actually diminish a woman's sense of confidence and comfort, because the thinner pad is not biased as firmly against the pubis by the undergarment, as are the older bulkier pads. Women therefore often resort to wearing several pads adhered together in layers for the purpose of dealing with this problem.

The use of adhesive materials to releasably bind these pads to the woman's undergarments also entails manufacturing and materials costs for the producer of the product.

In addition, tampons have been associated with a condition known as "toxic shock syndrome", the complications of which may lead in infection, sterility and even death if not recognized and treated in a timely manner. Although tampons are efficient absorbents, they are neither convenient nor easy to install, and their installation can itself result in minor damage to vaginal tissues. The need to insert and maintain the tampon's position within the vagina is problematic, since adjacent musculature tends to expel the tampon from the body, especially during bowel activity.

Attempts have been made to supplement the above mentioned bulky products with absorbent padding shaped as a ridge adapted to lay along the labial cleft that opens into the vulva, in the hope of thereby aiding in properly aligning the napkin and helping to keep the napkin generally from moving out of its intended position during wear. In addition, these products are touted as providing some additional margin of security by holding up at least enough of the menstrual flow to allow the napkin's larger absorbent capacity to cope with the remainder. The fact remains, however, that these large napkin constructions are still uncomfortable, and notwithstanding the above mentioned ridges,

can be unintentionally pulled or otherwise dislocated in ways that still lead to their moving out of position during the normal course of a woman's daily activity.

The need outstanding in the art, therefore, is for a product which can offer a minimal external profile, while inspiring confidence in its wearer by reliably holding its intended position and by being perceived to have sufficient capacity to control and absorb the expected menstrual flow.

SUMMARY OF THE INVENTION:

In accordance with the present invention, there is provided a freestanding feminine menstrual hygiene product comprising an integrally formed vulva insert having a vertically extending process and laterally extending processes wherein the laterally extending processes comprise a thin discharge-adsorbent padding adapted to exteriorly laterally overlay the labia majora along at least a portion of the vulva extending between the mons pubis and the posterior end wall of the vestibule. The vertically extending process comprises a centrally-raised contoured portion of the vulva insert that comprises an absorbent, vestibular-resident padding operable to extend at least partially frictionally engaged, removably- interfitted position between opposed ones of minor labial folds, with the laterally extending processes cooperably arranged exteriorly of the minor folds, in laterally-extending, labia majora-superposed relation. In this way the insert is adapted to substantially resist positional dislocation of the contoured vestibular-resident insert, when same is operably positioned within the vestibule.

Preferably, the vulva insert comprises a pair of symmetrical laterally extending processes extending laterally outwardly on either side of a contiguously-formed base

portion of the vertically extending process. The vertically extending process includes a centrally, laterally-outwardly swollen basal distension adapted for wedgingly engaging within the vestibule.

It is further preferred that the distension in the vertically extending process be adapted to include symmetrically opposed laterally protuberant contours arranged in spaced apart relation from corresponding ones of the laterally extending processes. These contours are adapted to be received internally of the vestibule.

These contours may be pre-formed structures, or may be incipient. In the latter case, the contours are the product of a central localization of more or more resilient padding bordered by a more compressible padding material.

In either case an intermediate basal portion arranged in "vertically extending process/ laterally extending process" conjoining relation adjacent the protuberant contours, is adapted to form a lateral isthmus through which the vertically extending process is contiguously joined to the laterally extending processes. This isthmus then provides a pair of opposed laterally-inwardly extending depressions adapted to be labially-grasped when the vestibular-resident insert is operably positioned within the vestibule.

An additionally preferred feature of the vertically extending process is a vertically extending process taper arranged at the anterior end of the vulva insert, which taper is adapted to generally fittingly correspond to the shallowing of the vestibule proximal to the mons pubis. A radiused, (ie curved) taper is preferred.

Also, it is preferred that the laterally extending processes are mutually laterally-inwardly tapered towards the vertically extending process at that same anterior end of the vulva insert. Here again, a radiused taper is preferred.

The other end of the vulva insert is preferably "truncated", such that the posterior end of the vertically extending process is positionable adjacent and along the posterior end wall of the vestibule. The adjacent ends of the lateral processes, extend normally (ie at right angles to the longitudinal axis of the insert), outwardly from the root of that end of the vertically extending process.

In accordance with the invention as hereinbefore described, the present vulva insert is advantageously adapted to blockingly receive and adsorbingly "dissipate" surges in mensa flow by strategically and economically positioning sufficient amounts of absorbent padding material.

At the same time, the insert makes use of sufficient amounts of absorbent materials without engendering the bulkiness associated with traditional pads, but at the same time without compromising the wearer's confidence and comfort with respect to the perceptions of either the padding's absorbent capacity to deal with the flow, or the padding's required positioning. The present insert is adaptable to be secured within the vestibule, without necessarily taking recourse to securing the product to the wearer's undergarments, thereby helping to offset problems associated with the shifting of the undergarment in the normal course. Twisting and bunching are substantially avoidable.

Finally, the present insert is adapted to blockingly defer sudden surges in the menstrual flow, and to absorb those surges over time, from along both sides of the vestibular resident padding material. This provides a "two-sided" efficiency in the use of the absorbent material.

DETAILED DESCRIPTION OF THE INVENTION:

INTRODUCTION TO THE DRAWINGS:

Over the course of the following detailed description a particularly preferred embodiment according to the present invention, reference will be made to the appended drawings, in which:

Figure 1 is an elevated anterior end view of a feminine menstrual hygiene product, illustrating the vertically extending process and laterally extending processes thereof, and the distension of the vertically extending process as described more generally, hereinabove; and,

Figure 2 is an elevated posterior end view of the product illustrated in Figure 1; and,

Figure 3 is an elevated side view of the product of Figures 1 and 2, depicting in particular a protuberant contour extending outwardly from the presentation face of the vertically extending process; and,

Figures 4 and 5 are, respectively, top and bottom plan views of the product variously illustrated in the preceding Figures 1 through 3.

Referring now to the appended drawings and to the Figures in general, there is illustrated a preferred feminine menstrual hygiene product according to the present invention. The product comprises an integrally formed vulva insert 1 having a vertically extending process 2 and a pair of laterally extending processes, 3 and 4.

Laterally extending processes 3 and 4 comprise a portion of the vulva insert which is formed of a discharge-absorbent padding adapted to exteriorly laterally overlay the labia majora along at least a portion of the vulva extending between the mons pubis and

the posterior end wall of the vestibule. This pair of symmetrical laterally extending processes 3 and 4 extend laterally outwardly on either side of a contiguous base portion 5, along the longitudinally extending root of the vertically extending process 2.

The vertically extending process 2 comprises a centrally-raised contoured portion of the vulva insert 1, comprising absorbent, vestibular-resident padding operable to extend in substantial vaginal orifice-occluding relation in a generally sealing, at least partially frictionally engaged, removably- inter fitted position between opposed ones of minor labial folds. The vertically extending process 2 further includes a centrally, laterally-outwardly swollen basal distension 6 adapted for wedgingly engaging in the vestibule. The distension 6 in the vertically extending process 2 is adapted to include symmetrically opposed laterally protuberant contours 7 arranged in vertically spaced apart relation from corresponding ones of the laterally extending processes 3 and 4. These protuberant contours 7 extend laterally outwardly in overhanging relation relative to the laterally extending processes 3 and 4. An intermediate basal portion 8 that is arranged in vertically extending process/laterally extending process conjoining relation adjacent these protuberant contours 7, is adapted to form a lateral isthmus 9 along a collateral, longitudinally extending root portion of the vertically extending process 2, through which that process is contiguously joined to the adjacent portions of the laterally extending processes 3 and 4. This isthmus 9 provides a pair of opposed laterally-inwardly extending depressions 10 that are adapted to be labially-grasped when the vestibular-resident padding is operably positioned within the vestibule.

The vulva insert's laterally extending processes 3 and 4 are adapted to be cooperably arranged exteriorly of the minor folds, in laterally-extending, labia majora-superposed relation.

In the illustrated embodiment, the vertically extending process 2 has a vertically
5 extending process taper 11 arranged at anterior end 12 of the vulva insert 1, which curvingly radiused taper is adapted to generally fittingly correspond to the shallowing of the vestibule proximal to the mons pubis. Additionally, the laterally extending processes are similarly, and mutually laterally-inwardly tapered (see reference numeral 13), towards the vertically extending process 2, at the same anterior end 12 of the vulva insert 1.

10 The posterior end 14 of vulva insert 1, is "truncated", such that the posterior end 15 of the vertically extending process 2 is positionable adjacent and along the posterior end wall of the vestibule. The adjacent ends 16 and 17 of the lateral processes 3 and 4, extend normally (ie at right angles) , outwardly from that end of the vertically extending process. Amongst other things, this arrangement serves to clearly distinguish the anterior
15 and posterior ends of the insert 1, so that the user is able to readily orient the product for proper wear, comfort and usefulness.

WE CLAIM:

1. A freestanding feminine menstrual hygiene product comprising an integrally formed vulva insert having a vertically extending process and laterally extending processes wherein said laterally extending processes comprise a thin discharge-absorbent padding adapted to exteriorly laterally overlay a pair of labia majora along at least a portion of a vulva extending between a mons pubis and a posterior end of a vestibule, and, wherein said vertically extending process comprises a centrally-raised contoured portion of said vulva insert comprising an absorbent, vestibular-resident padding operable to extend in substantial vaginal-orifice-occluding relation in a generally sealing, at least partially frictionally engaged, removable-interfitted position between opposed ones of minor labial folds, with a mat cooperably arranged exteriorly of said minor folds, in laterally-extending, labia majora-superposed relation.
2. The product according to claim 1, wherein said vulva insert includes a pair of symmetrical extending processes extending laterally outwardly on either side of a contiguous base portion of said vertically extending process, and wherein said vertically extending process includes a centrally, laterally-outwardly swollen basal distension adapted for wedgingly engaging in the vestibule.
3. The product according to claim 2, wherein said distension in said vertically extending process is adapted to include symmetrically opposed laterally protuberant contours arranged in spaced apart relation from corresponding ones of said laterally extending processes, such that an intermediate basal portion arranged in vertically

extending process-laterally extending process-conjoining relation adjacent said protuberant contours, is adapted to form a lateral isthmus through which the vertically extending process is contiguously joined to said laterally extending processes and whereby said isthmus provides a pair of opposed laterally-inwardly extending depressions
5 adapted to be labially grasped when said vestibular-resident padding is operably positioned within the vestibule.

4. The product according to claim 3, wherein said vertically extending process has a vertically extending process taper arranged at one anterior end of said vulva insert,
10 which taper is adapted to generally fittingly correspond to anterior shallowing of the vestibule.

5. The product according to claim 4, wherein said laterally extending processes are mutually laterally-inwardly tapered towards the vertically extending process at the said
15 anterior end of said insert.

6. The product according to claim 5, wherein a posterior end of the vulva insert is truncated, such that a posterior end of the vertically extending process is positionable adjacent and along a corresponding posterior end wall of the vestibule, and adjacent ends
20 of the lateral processes extend normally outwardly from said posterior end of the vertically extending process.

7. The product according to claim 1, wherein said processes are substantially the same length.

8. A menstrual hygiene product comprising an elongated base portion for
5 substantially overlaying a pair of labia majora while extending between a mons pubis and a posterior end of a vestibule; and an absorbent raised portion depending centrally from said base portion, said raised portion being substantially complementary to said vestibule such that when inserted therein said raised portion substantially absorbs menstrual fluid.

9. The product according to claim 8, wherein the absorbent raised portion includes
10 a contoured portion and a basal distension.

10. The product according to claim 9, wherein the absorbent raised portion has a
centrally,

15 laterally-outwardly swollen basal distension for wedging engagement in a vestibule.

11. The product according to claim 10, wherein the basal distension is defined by
symmetrically opposed laterally protuberant contours.

12. The product according to claim 11, wherein the contours extend
20 laterally-outwardly and overhang the base portion.

13. The product according to claim 11, wherein the product further comprises a basal portion intermediate said contours and said base portion.

14. The product according to claim 13, wherein the basal portion tapers to an isthmus towards said posterior end when inserted in said vestibule.

15. The product according to claim 14, wherein said isthmus comprises a pair of opposed laterally-inwardly extending depressions to be grasped by a pair of labia majora.

16. The product, according to claim 15, wherein said absorbent raised portion is defined by a curvingly radiused taper away from said posterior end.

17. The product according to claim 16, wherein said base portion is substantially bullet-shaped.

18. The product according to claim 17, wherein said base portion tapers away from said posterior end when said product is inserted in said vestibule.

19. A menstrual hygiene product comprising:
a pair of laterally extending processes for substantially overlaying a pair of labia majora while extending between a mons pubis and a posterior end of a vestibule; and

a vertically extending process having a raised contoured portion and comprising absorbent padding for removable frictional engagement between opposed ones of minor labial folds.

5 20. The product according to claim 20, wherein the vertically extending process includes a contoured portion and a basal distension.

21. The product according to claim 21, wherein the vertically extending process has a centrally, laterally-outwardly swollen basal distension for wedging engagement in a
10 vestibule.

22. The product according to claim 22, wherein the basal distension is defined by symmetrically opposed laterally protuberant contours.

15 23. The product according to claim 23, wherein the contours extend laterally-outwardly and overhang the pair of laterally extending processes.

24. The product according to claim 23, wherein the product further comprises a basal portion intermediate said contours and said pair of laterally extending processes.

20 25. The product according to claim 25, wherein the basal portion tapers to an isthmus towards said posterior end when inserted in said vestibule.

26. The product according to claim 26, wherein the isthmus comprises a pair of opposed

laterally-inwardly extending depressions to be grasped by a pair of labia majora.

5 27. The product according to claim 27, wherein said vertically extending process is defined by a curvingly radiused taper away from said posterior end.

28. The product according to claim 28, wherein said pair of laterally extending processes are substantially bullet-shaped.

10

29. The product according to claim 28, wherein said pair of laterally extending processes taper away from said posterior end when said product is inserted in said vestibule.

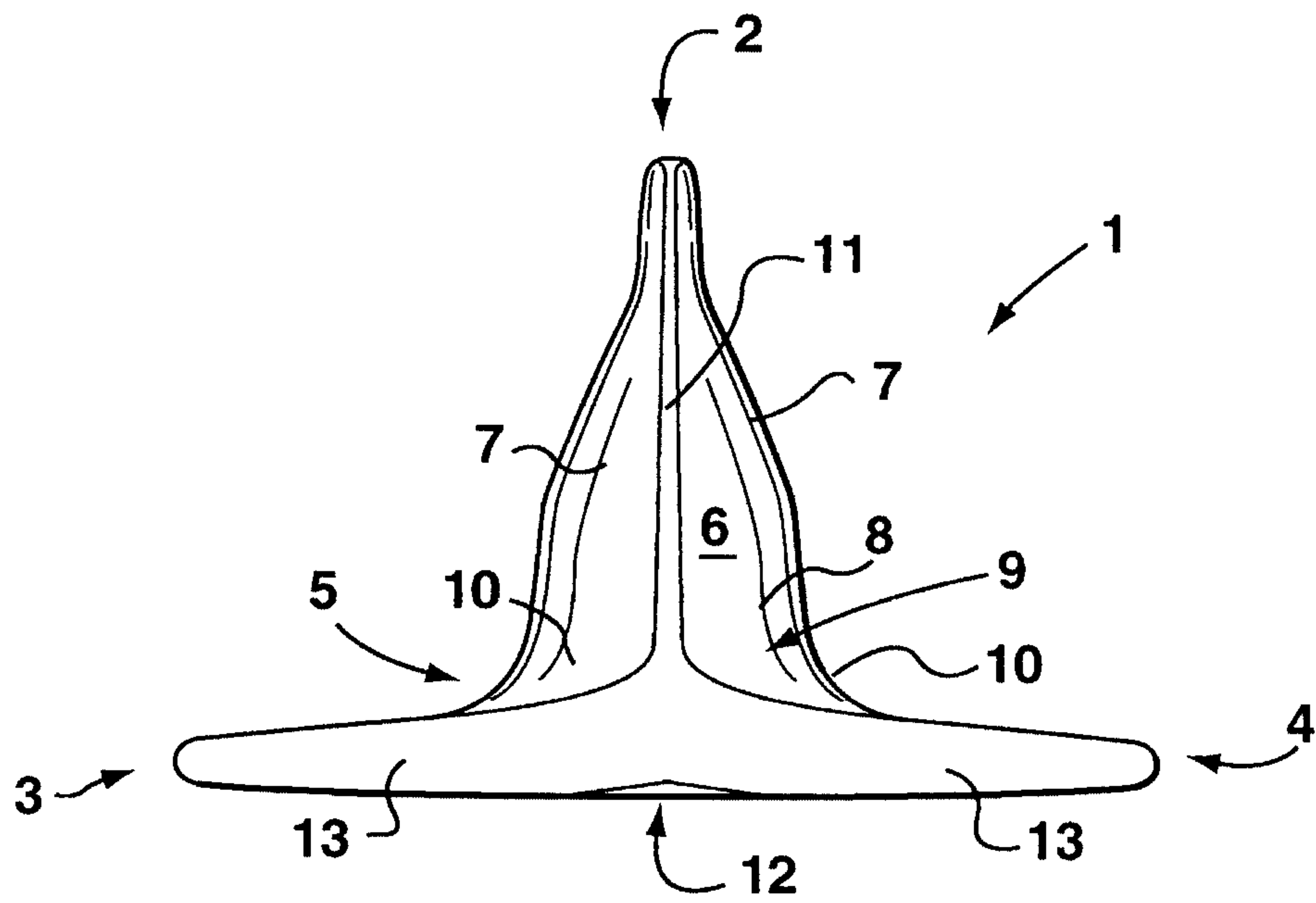


FIG. 1

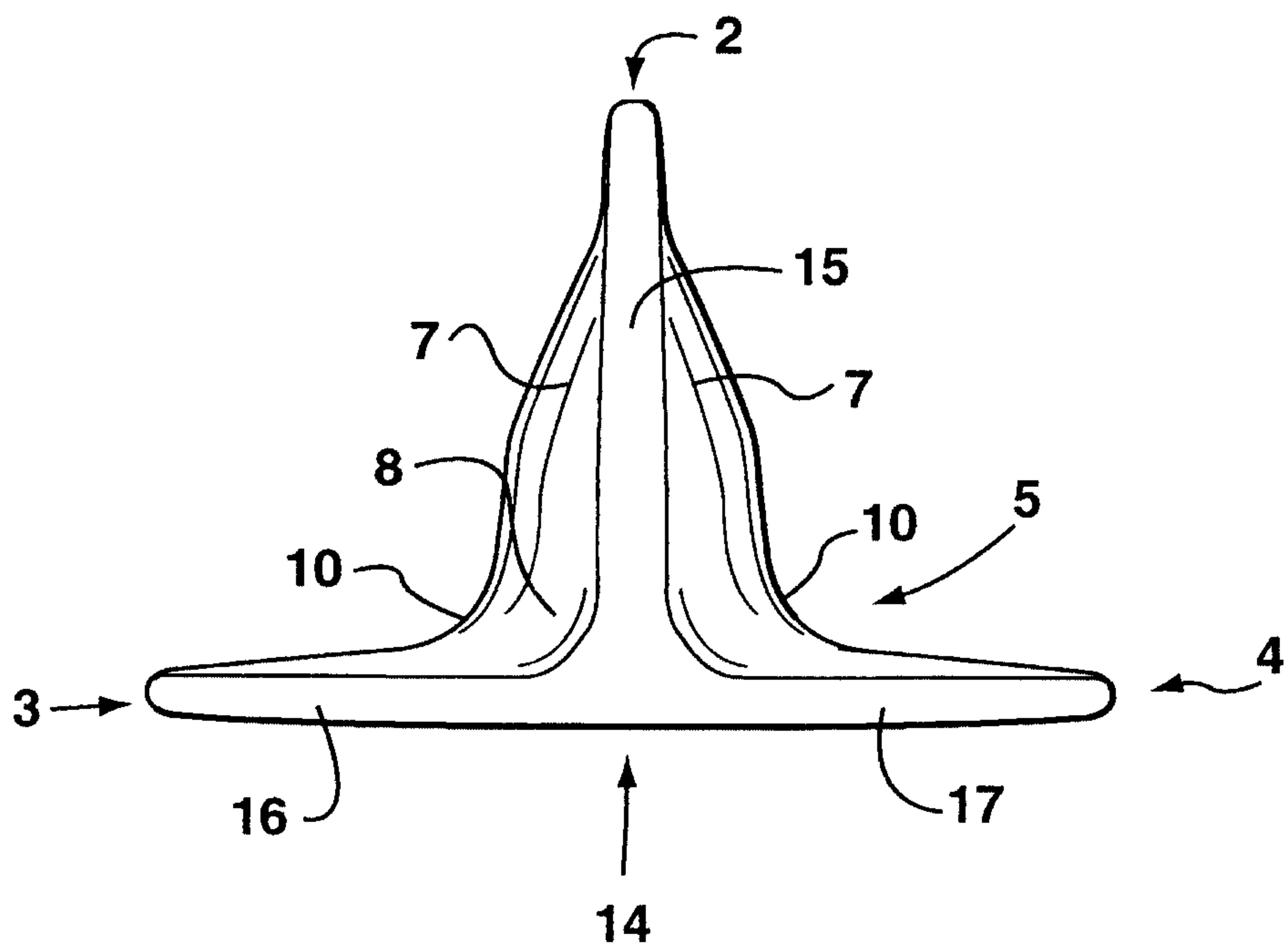


FIG. 2

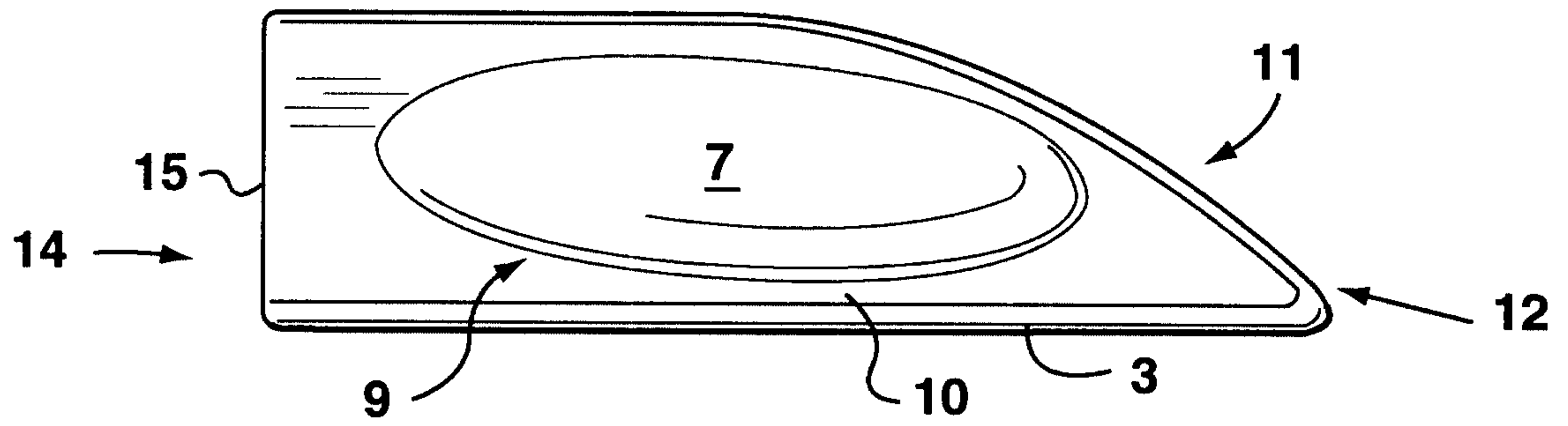


FIG. 3

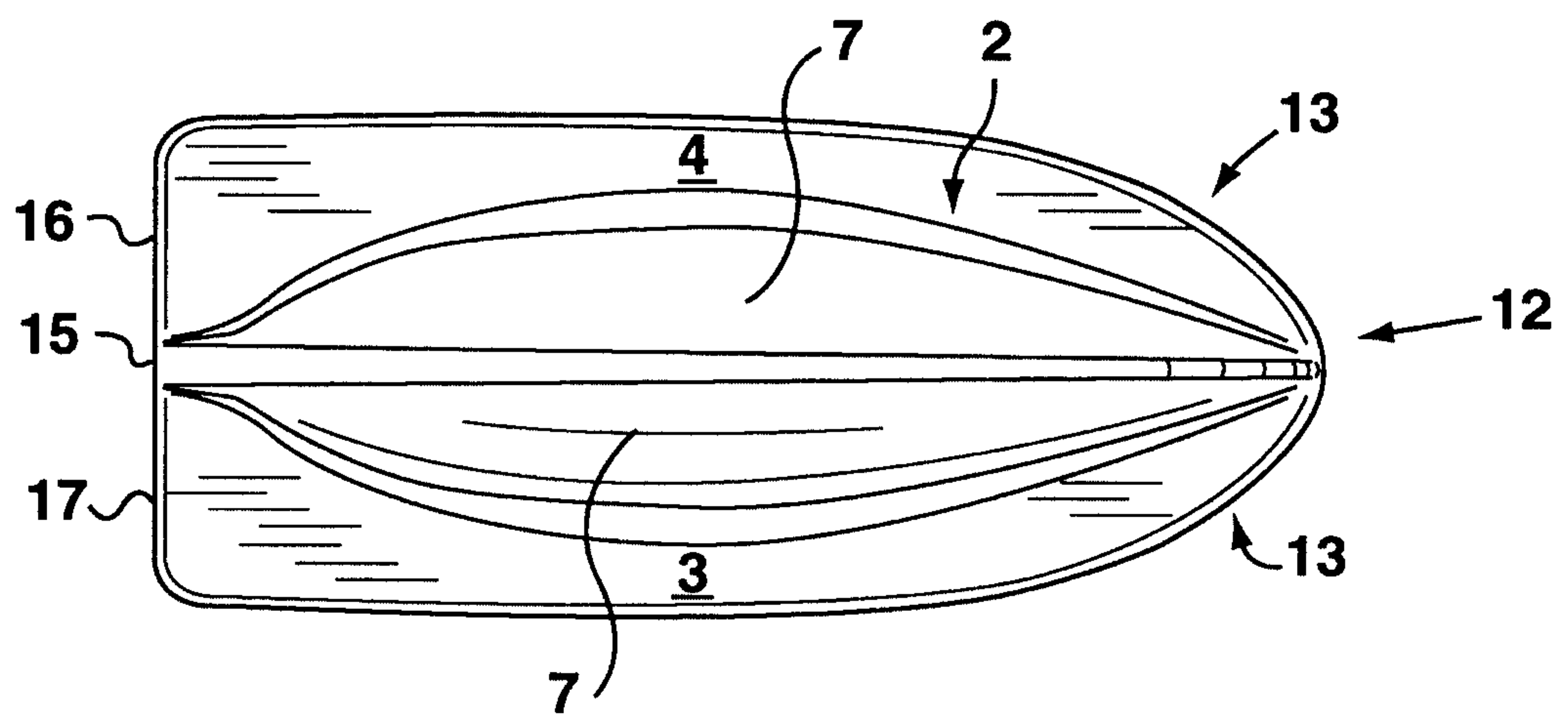


FIG. 4

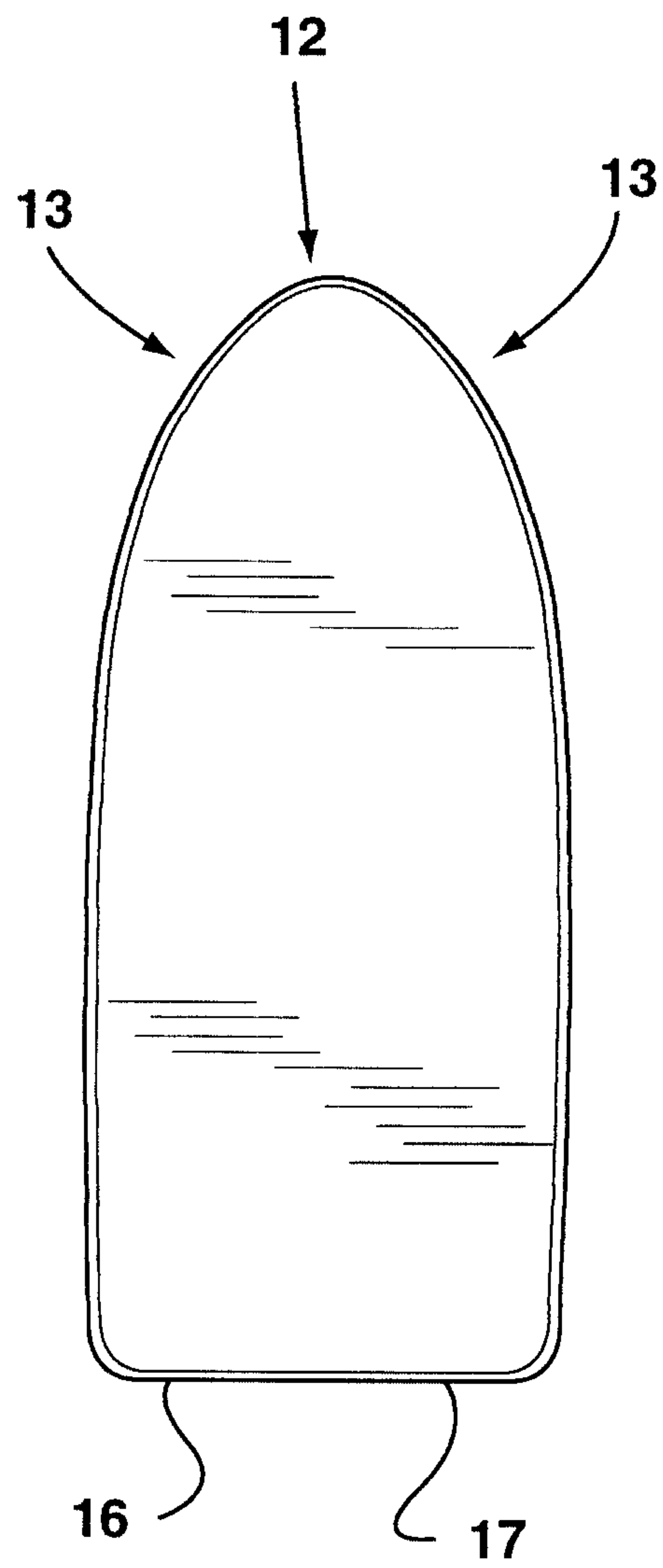


FIG. 5

