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(54) **Product tray**

(57) A container (1) for use in the packaging of a product, such as a fresh meat product, with associated wrapping, comprising means (9) arranged to direct any liquid seeping or otherwise being released from the product when located upon the container (1), to a pre-determined area (2, 6) of the interior surface of the base of the container (1). The underside surface of the base of the container (1) includes a recess (6') in which any excess wrapping can be at least partially accommodated. The container (1) further comprises means (10) arranged to engage a product packaged upon the container (1), to retain the product in position with respect to the container (1).

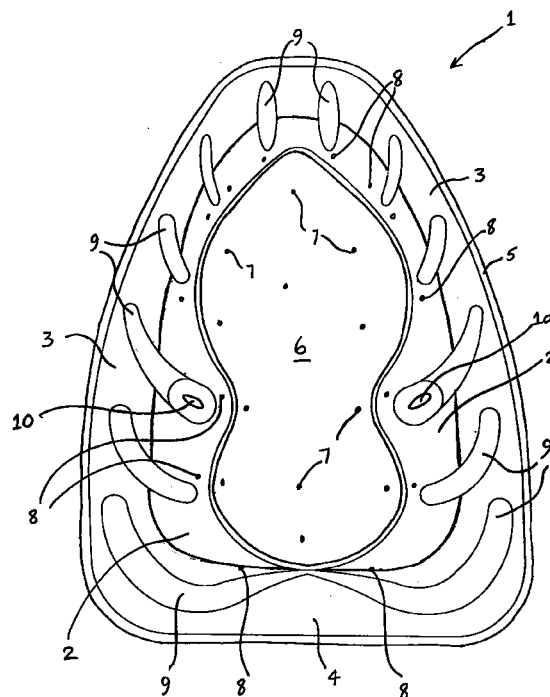


FIGURE 1

EP 0 972 720 A2

Description

[0001] This invention relates to a tray suitable for use in the packaging, storage, transportation and/or display at point-of-sale of a product, such as a fresh food product and particularly a fresh chicken or other item of poultry or game bird.

[0002] Known trays of the type used for displaying wrapped fresh chickens at point-of-sale, generally comprise a shallow tray of expanded polystyrene or other suitable plastics material and of generally rectangular or triangular shape when viewed in plan. Such a known type of "poultry" tray is usually provided with a sheet of absorbent material which is suitably shaped to extend over at least part of the interior surface area of the base of the tray, usually the central part thereof, for absorbing any liquid which may seep from, say, a chicken packed on the tray in combination with film wrapping. However, it has been found that any liquid seeping from those parts of the body of the chicken which are not located directly over the absorbent sheet material, lies on the interior surface of the tray base and, when a plurality of chicken-packaged trays are shingled in a display cabinet at point-of-sale, tends to collect as pools in the lower regions of the so-shingled trays. As a consequence, the liquid can seep further through creases in the plastics wrap associated with the packaged chicken, resulting in undesirable leakage of liquid therefrom.

[0003] Another disadvantage associated with this known type of poultry tray is that when an item of fresh poultry, such as a fresh chicken, is placed upon the tray and film wrapping, any excess wrapping is located, in several irregularly folded layers thereof, at the underside of the tray, resulting in an unstable tray which tends to wobble when placed on a flat surface, such as that of a display cabinet at point-of-sale.

[0004] Further, this known type of tray does not cater adequately for different sizes of poultry item, that is to say, if chickens of different sizes are to be packed on trays of the same size, then because the interior surfaces of the bases of the trays tend to be generally planar, at least some of the chickens become unstable when placed thereon, particularly during the packaging process just prior to film wrapping being applied thereto. For the same reason, smaller chickens tend to slide down the trays on which they are packed and wrapped, when the trays are shingled in, say, a display cabinet at point-of-sale.

[0005] Accordingly, it is an object of the present invention to overcome, or at least substantially reduce, the disadvantages associated with known types of trays, such as those discussed above in relation to poultry trays.

[0006] One aspect of the invention provides a container, preferably a shallow tray, for use in the packaging of a product, such as a fresh meat product, with associated wrapping, for example, film wrapping, the container comprising means arranged to direct any liquid seeping

or otherwise being released from the product when located upon the tray, to a predetermined area of the interior surface of the base of the tray.

[0007] Such liquid directing means may comprise ridges or other protuberances on the internal surface of the base and/or adjacent wall(s) of the tray. Alternatively, such means may comprise suitably-shaped channels associated with the interior surface of the base and/or adjacent wall(s) of the tray.

[0008] The predetermined area, which may be one or more such areas, may be absorbent. For example, it may comprise a layer of absorbent sheet material extending over at least part of the area of the interior surface of the base of the tray. Alternatively or additionally, such area may constitute part of the thickness of the tray base and/or adjacent wall(s), in which case, the interior surface thereof may be provided with suitably-shaped and sized holes therein.

[0009] Optionally, the underside surface of the tray may include a suitably-shaped recess therein for accommodating at least part of any excess wrapping associated with the tray and its product, during use.

[0010] Further, the interior surface of the container may also include means for engaging a product located thereon, in order to retain the product in position with respect to the container. Such product-engaging means may comprise one or more lugs or other similar means upstanding from the base and/or adjacent wall(s) of the container, as will be described in more detail hereinbelow. However, in the case of a chicken packaged upon the container, such engaging means is preferably arranged to be received within the spaces between the body and crux of the folded wings of the chicken.

[0011] A second aspect of the invention resides in a container, such as a shallow tray, for use in packaging a product, such as a fresh meat product, in association with wrapping, wherein the underside surface of the base of the container includes a recess in which any excess wrapping can be at least partially accommodated.

[0012] A container in accordance with the second aspect of the invention may also comprise liquid-directing means in accordance with the first aspect of the invention and/or product-engaging means, as described above.

[0013] A third aspect of the invention provides a container, such as a shallow tray for use in the packaging of a product with, associated wrapping, which container comprises means, preferably integral, arranged to engage a product packaged upon the container, to retain the product in position with respect to the container.

[0014] Such product-engaging means may comprise a pair of lugs protruding from the interim of the base of the container and shaped and arranged to be located, for example, within respective spaces defined between the body and crux of the folded wings of, say, a fresh poultry product, such as a fresh chicken.

[0015] The container in accordance with the third aspect of the invention may also include the liquid directing means of the first aspect of the invention, and any modifications thereof, and/or the excess-wrapping accommodation means of the second aspect of the invention or any modifications thereof

[0016] The invention provides further a packaged product, such as a fresh poultry product, comprising a container in accordance with the first, second or third aspect of the invention, as defined above, a product located upon the base of the container and a wrapping extending over the so-located product and beneath the base of the container.

[0017] A preferred embodiment of container in accordance with the various aspects of the invention will now be described by way of example and with reference to the accompanying drawings in which Figures 1 and 2 are respective top and bottom plan view thereof

[0018] Referring, therefore, to Figure 1 of the drawings, a container in the form of a shallow tray, indicated generally at 1, is of generally triangular shape, with a base 2, a pair of inclined side walls 3 upstanding from the base 2 and an inclined end wall 4 also upstanding from the base 2, with the side and end walls 3,4 being substantially continuous and having an outwardly projecting rim 5 extending around the upper edges thereof.

[0019] The tray 1 is moulded from any suitable material, preferably expanded polystyrene.

[0020] Centrally of the base 2 is provided a figure of eight-shaped area 6 which is raised slightly above the level of the remaining area of the base 2 and which is shaped to correspond to the rough profile of the back of a fresh chicken to be located upon the area 6 for subsequent wrapping.

[0021] That area 6 may be provided with a correspondingly-shaped layer (not shown) of absorbent sheet material for absorbing any liquid which may seep from a chicken located thereupon. However, in this particular form of inventive tray 1, the surface of that raised area 6 of the base 2 is provided with a plurality of holes 7 through which any seeped liquid can pass into the thickness of the base for absorption purposes. Similarly, the remaining area of the base 2 is also provided with holes 8, for the same absorption process. However, and in accordance with the first aspect of the invention, ridges 9 of different shapes and lengths, upstanding from the surface of the base 2 and adjacent side walls 3,4, direct any seeped liquid to associated predetermined areas of the base 2, such that the liquid can then be absorbed into the thickness of the tray 1 via respective adjacent holes 8. This additional liquid is generally derived from those parts of a chicken located upon the tray 1, which are not located directly above the figure of eight-shaped raised base area 6.

[0022] The top plan view of the tray 1 of Figure 1 illustrates the interior configuration thereof whilst the bottom plan view of the tray 1 of Figure 2 shows the exterior configuration thereof with the corresponding compo-

nents 2 to 9 of Figure 1 shown as dashed references in Figure 2.

[0023] Referring now to Figure 2, the base 2' of the tray 1 comprises a central, recessed area 6' of generally figure of eight-shaped configuration which corresponds to the raised area 6 of the base 2 as shown in Figure 1.

[0024] In use of the tray 1, namely, when, say, a chicken is placed on the tray 1 and subsequently film wrapped, any excess wrapping may be at least partially accommodated in the recessed area 6', in accordance with the second aspect of the invention, to enhance the stability of the total package when placed upon a flat supporting surface, such as, a refrigerated display area at point-of-sale.

[0025] Returning now to Figure 1 of the drawings, each of a pair of opposed upstanding ridges 9 is formed integrally, at an inner end thereof, with an upstanding lug 10 which, in accordance with the third aspect of the invention, is arranged to engage in the space between the crook of the folded wings and adjacent body portion of a chicken located upon the tray 1, to retain the chicken in its desired position with respect thereto.

[0026] It has been found that the shapes and sizes of the backs of fresh chickens within a given range of weights are substantially the same, with only the other parts of the chicken bodies, such as the breasts, thighs and legs, being of different sizes and, hence, weights.

[0027] Thus, lower and higher weight chickens, within a given range, can readily be accommodated upon the same size of tray 1, with their backs engaged upon the same-sized, raised surface area 6 of the base 2.

[0028] With both larger and smaller weight chickens, the lugs 10 assist in retaining the position of the chickens upon the trays 1, whilst for smaller chickens, the lugs 10 also assist in preventing the chickens from sliding down the trays 1 when the trays 1 are shingled, with their end walls 4 resting upon a supporting surface, such as that of a display cabinet at point-of-sale.

[0029] Similarly, the lugs 10 assist in retaining the chickens in position upon the trays 1 just prior to and during the subsequent film wrapping process.

[0030] It is to be appreciated that the three main aspects of the invention may be employed singly or in any combination thereof to provide a container, such as a poultry tray, which overcomes or at least substantially reduces, the disadvantages of known types of similar container and which may include modifications not disclosed specifically herein.

Claims

1. A container (1) for use in the packaging of a product, such as a fresh meat product, with associated wrapping, comprising means (9) arranged to direct any liquid seeping or otherwise being released from the product when located upon the container (1), to a predetermined area (2, 6) of the interior surface of the base of the container (1).

2. A container according to claim 1 wherein the container (1) is a shallow tray.
3. A container according to claim 1 or 2, wherein said liquid directing means (9) comprises ridges or other protuberances on the internal surface of the base (2) and/or adjacent wall(s) (3, 4) of the container (1).
4. A container according to claim 1 or 2, wherein said liquid directing means (9) comprises suitably-shaped channels associated with the interior surface of the base (2) and/or adjacent wall(s) (3, 4) of the container (1).
5. A container according to any preceding claim, wherein the predetermined area (2, 6) may comprise one or more such areas.
6. A container according to any preceding claim, wherein the predetermined area is absorbent (6).
7. A container according to claim 6, wherein the predetermined area comprises a layer of absorbent sheet material (6) extending over at least part of the area of the interior surface of the base of the container.
8. A container according to any preceding claim, wherein the predetermined area (6) constitutes part of the thickness of the tray base (2) and/or adjacent wall(s) (3, 4).
9. A container according to claim 8, wherein the interior surface of the container is provided with suitably-shaped and sized holes (7, 8) therein.
10. A container according to any preceding claim, wherein the underside surface of the container (1) includes a suitably-shaped recess (6') therein for accommodating at least part of any excess wrapping associated with the container and its product, during use.
11. A container according to any preceding claim, wherein the interior surface of the container includes means for engaging a product (10) located thereon, in order to retain the product in position with respect to the container (1).
12. A container according to claim 11, wherein said product-engaging means comprise one or more lugs (10) or other similar means upstanding from the base (2) and/or adjacent wall(s) (3, 4) of the container (1).
13. A container according to claim 12, wherein said engaging means (10) is arranged to be received within the spaces between the body and crux of the folded wings of the chicken, in use.
14. A container according to any of claims 1 to 13, wherein the wrapping is film wrapping.
15. A container for use in packaging a product, such as a fresh meat product, in association with wrapping, wherein the underside surface of the base of the container includes a recess (6') in which any excess wrapping can be at least partially accommodated.
16. A container according to claim 15, wherein the container is a shallow tray.
17. A container according to claims 15 or 16, comprising means (9) arranged to direct any liquid seeping or otherwise being released from the product when located in the container, to a predetermined area (2, 6) of the interior surface of the base of the container.
18. A container according to claim 17, wherein said liquid directing means (9) comprises ridges or other protuberances on the internal surface of the base (2) and/or adjacent wall(s) of the container (3, 4).
19. A container according to claim 17, wherein said liquid directing means (9) comprises suitably-shaped channels associated with the interior surface of the base (2) and/or adjacent wall(s) of the container (3, 4).
20. A container according to any of claims 17 to 19, wherein the predetermined area (2, 6), may comprise one or more such areas.
21. A container according to any of claims 17 to 20, wherein the predetermined area (6) is absorbent.
22. A container according to claim 21, wherein the predetermined area comprises a layer of absorbent sheet material (6) extending over at least part of the area of the interior surface of the base (2) of the container.
23. A container according to any of claims 17 to 22, wherein the predetermined area (6) constitutes part of the thickness of the tray base (2) and/or adjacent wall(s) (3, 4).
24. A container according to claim 23, wherein the interior surface of the container is provided with suitably-shaped and sized holes (7, 8) therein.
25. A container according to any of claims 15 to 24, wherein the interior surface of the container includes means (10) for engaging a product located

- thereon, in order to retain the product in position with respect to the container (1).
26. A container according to claim 25, wherein said product-engaging means (10) comprises one or more lugs or other similar means upstanding from the base (2) and/or adjacent wall(s) (3, 4) of the container (1).
27. A container according to claim 25 or 26, wherein said engaging means (10) is arranged to be received within the spaces between the body and crux of the folded wings of the chicken, in use.
28. A container for use in the packaging of a product with associated wrapping, which container comprises means (10) arranged to engage a product packaged upon the container, to retain the product in position with respect to the container.
29. A container according to claim 28, wherein said product-engaging means (10) are integral with the container (1).
30. A container according to claim 28 or 29, wherein said product-engaging means comprises a pair of lugs (10) protruding from the interim of the base of the container (1).
31. A container according to claim 30, wherein said product engaging means (10) are shaped and arranged to be located within respective spaces defined between the body and crux of the folded wings of a fresh poultry product, such as a fresh chicken, in use.
32. A container according to any of claims 28 to 31 further comprising means (9) arranged to direct any liquid seeping or otherwise being released from the product when located in the container (1), to a predetermined area (2, 6) of the interior surface of the base of the container (1).
33. A container according to claim 32 wherein the container (1) is a shallow tray.
34. A container according to claim 32 or 33, wherein said liquid directing means comprises ridges (9) or other protuberances on the internal surface of the base (2) and/or adjacent wall(s) (3, 4) of the container (1).
35. A container according to any of claims 32 or 33, wherein said liquid directing means comprises suitably-shaped channels (9) associated with the interior surface of the base (2) and/or adjacent wall(s) (3, 4) of the container (1).
36. A container according to any of claims 32 to 35, wherein the predetermined area (2, 6), may comprise one or more such areas.
37. A container according to any of claims 32 to 36, wherein the predetermined area (6) is absorbent.
38. A container according to claim 37, wherein the predetermined area (6) comprises a layer of absorbent sheet material extending over at least part of the area of the interior surface of the base (2) of the container (1).
39. A container according to any of claims 32 to 38, wherein the predetermined area (6) constitutes part of the thickness of the tray base (2) and/or adjacent wall(s) (3, 4).
40. A container according to claim 39, wherein the interior surface of the container is provided with suitably-shaped and sized holes (8, 10) therein.
41. A container according to any of claims 28 to 40, wherein the underside surface of the container includes a suitably-shaped recess (6') therein for accommodating at least part of any excess wrapping associated with the container (1) and its product, during use.
42. A container according to any of claims 28 to 41, wherein the wrapping is film wrapping.
43. A packaged product, such as a fresh poultry product, comprising a container in accordance with any of claims 1 to 14, a product located upon the base of the container and a wrapping extending over the so-located product and beneath the base of the container.
44. A packaged product, such as a fresh poultry product, comprising a container in accordance with any of claims 15 to 27, a product located upon the base of the container and a wrapping extending over the so-located product and beneath the base of the container.
45. A packaged product, such as a fresh poultry product, comprising a container in accordance with any of claims 28 to 42, a product located upon the base of the container and a wrapping extending over the so-located product and beneath the base of the container.

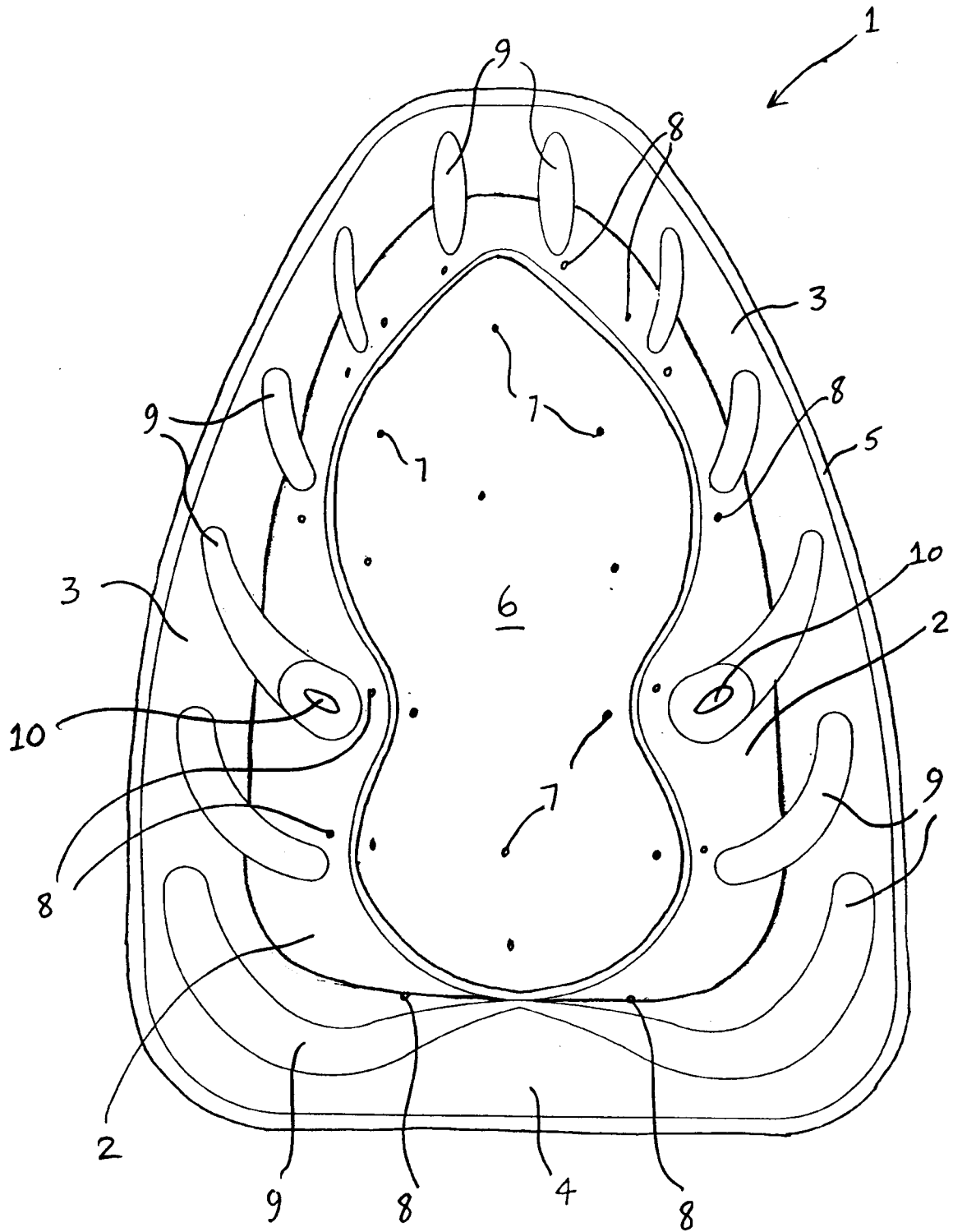


FIGURE 1

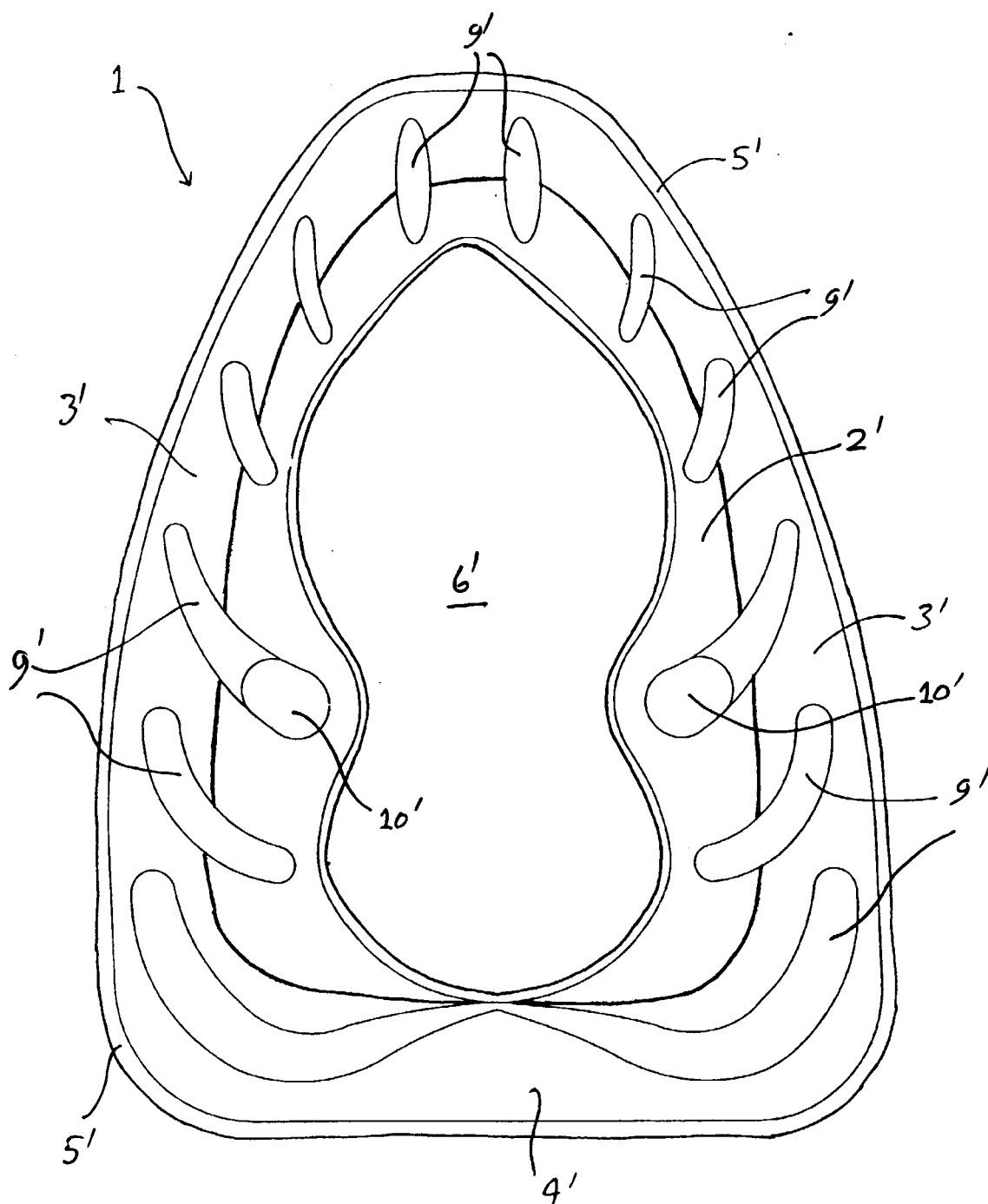


FIGURE 2