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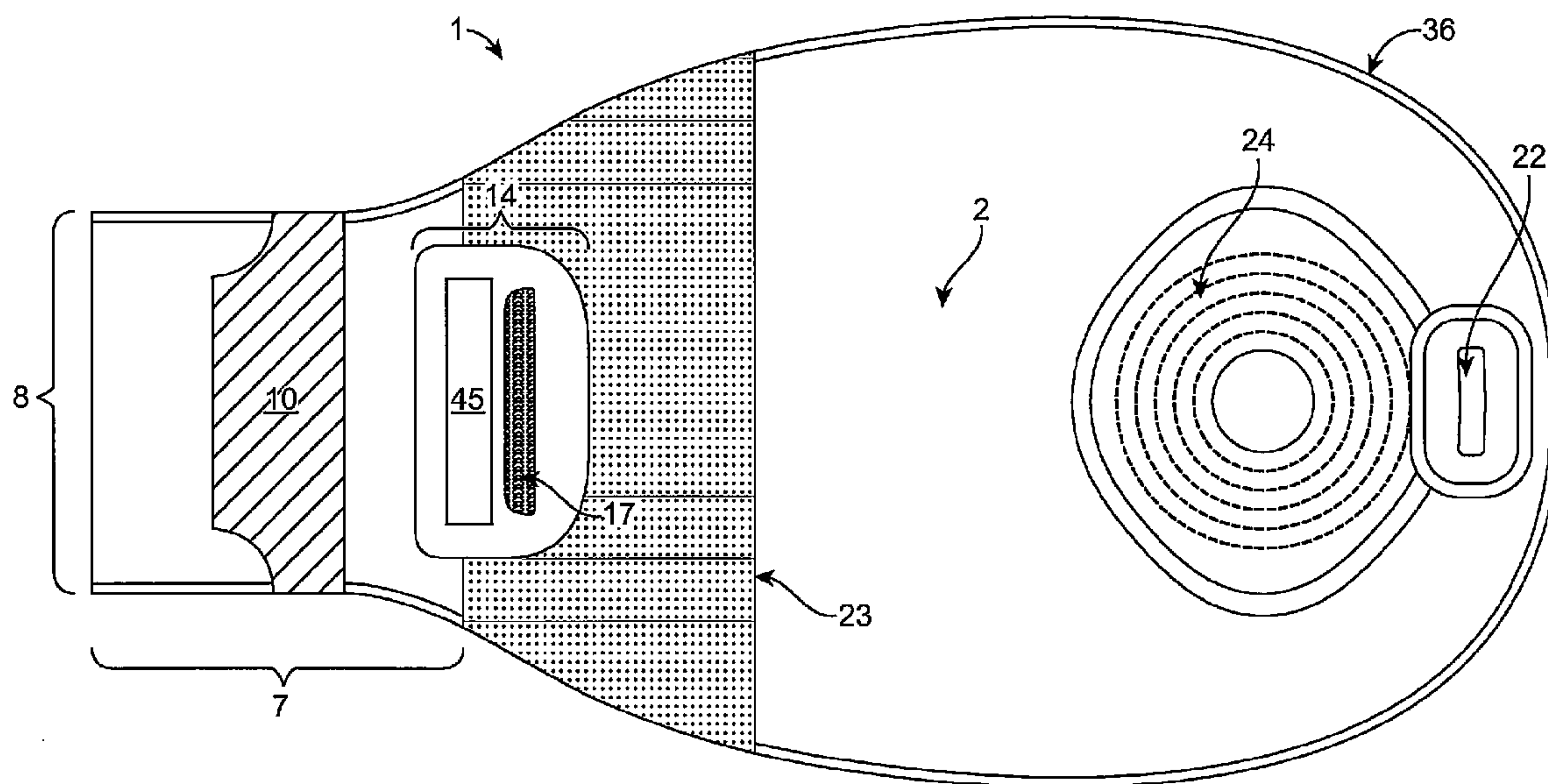


FIG. 1

(57) **Abrégé/Abstract:**

Described herein is a medical device with an opening system. The medical device is foldable from an open to a closed condition. It is secured in its closed condition. In certain embodiments, the medical device is an ostomy pouch.

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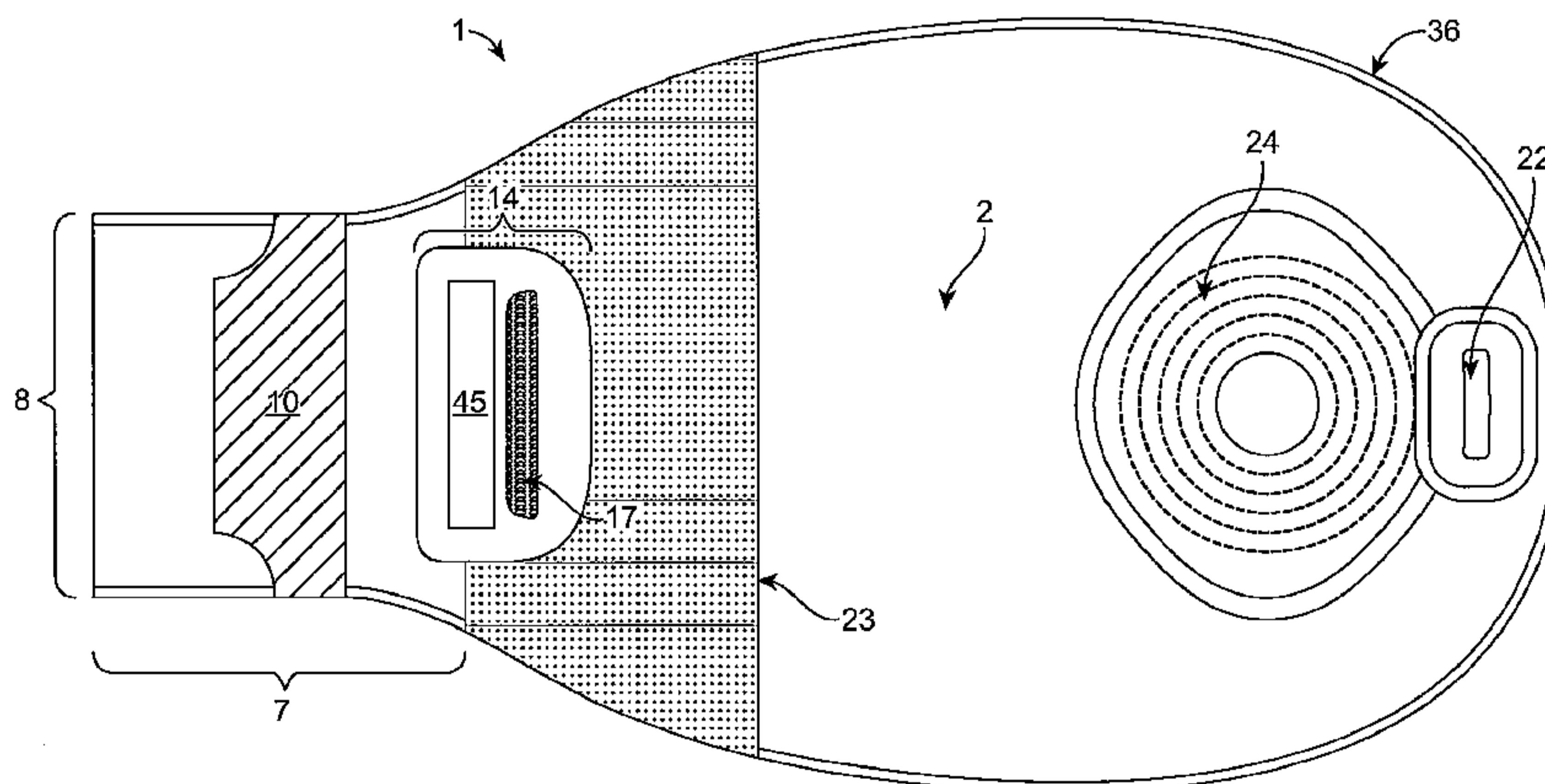


FIG. 1

(57) Abstract: Described herein is a medical device with an opening system. The medical device is foldable from an open to a closed condition. It is secured in its closed condition. In certain embodiments, the medical device is an ostomy pouch.

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DRAINABLE OSTOMY POUCH

This invention relates to a drainable ostomy pouch and more particularly but not solely to a drainable ileostomy pouch.

It is well known to provide flexible bags or so-called
5 pouches for receiving discharge from the stoma of patients after surgical procedures, such as a colostomy, ileostomy or urostomy.

The pouches are attached to the patient's skin by means of an adhesive pad, which is difficult to remove and thus
10 irritation is caused if the pouch is removed too often.

Accordingly, it has been proposed to provide drainable ostomy pouches, which can be emptied three to four times a day and changed only every two to three days, thereby reducing the risk of irritation.

15 The discharge from a stoma in the ileum is liquidous and thus ileostomy pouches are ideal for drainage.

Drainable ostomy pouches generally comprise front and rear walls of plastics film, which are heat-sealed around their peripheries to form a sealed chamber for receiving the
20 discharge. The walls are not sealed at the end of a projecting neck portion of the pouch, to provide a drain outlet for the chamber.

In use, the outlet of the pouch is normally rolled up to form a seal and a tie or plastics clip then is applied to
25 keep the outlet rolled up. In order to drain the pouch, the tie or clip is removed, thereby enabling the outlet to be unrolled, so that the contents of the pouch can flow therethrough.

The outlet is then rolled up and the tie or clip reapplied. In this manner, the pouch can be reused for several
30 days before it needs to be changed.

A disadvantage of this arrangement is that the contents of the pouch soil the inside of the outlet during drainage, thereby making it difficult to roll up the outlet of the pouch following drainage. Furthermore, the soiling inside the outlet
35 tends to ooze out as it is rolled up, thereby making it unpleasant and messy for the patient.

We have found that patients with drainable ostomy pouches thus try to clean inside the outlet of the pouch prior to resealing the outlet. However, a difficulty of this is that the liquidous soiling tends to adhere the plastics film on opposite sides of the outlet together, thereby making it difficult to open the outlet and clean inside.

We have thus devised a drainable ostomy pouch, which alleviates the above-mentioned problems.

In accordance with this invention, there is provided a drainable ostomy pouch comprising opposed walls of flexible sheet material, defining a chamber therebetween for receiving discharge from a patient's stoma, the walls being shaped to define an outlet for draining the discharge contained in the chamber and opening means attached to the walls on opposite sides of the outlet for separating the walls and opening the outlet.

Following drainage, the opening means thus make it much easier to clean inside the outlet.

In one embodiment, the opening means comprises a separate element from the pouch, the element having first and second portions attached to respective opposed walls of the outlet of the pouch.

Preferably the first and second portions are biased apart when the outlet is open.

Fastening means may be provided for holding the first and second portions of the element together when the outlet is closed. Alternatively, the first and second portions are biased together, when the outlet is closed.

Preferably the fastening means comprises first and second arms which are interconnected at one end and which extend transverse the axis of the outlet and which respectively engage the opposed walls.

Said first arm may be interconnected with a third arm at its opposite end, an elongate flexible element extending between the outer end of the second and third arms and one side wall of the outlet, the first arm being connected to the other side wall of the outlet.

Preferably the elongate element is resiliently flexible.

In an alternative embodiment, the opening means comprises first and second separate elements respectively
5 attached to the opposed walls of the outlet of the pouch.

Preferably, at least one of the elements comprises a resiliently flexible element, which in one embodiment is shaped so that the wall to which it is attached is pulled away from the opposed wall as it recovers its shape and which in an
10 alternative embodiment is shaped so that the wall to which it is attached is pulled away from the opposed wall as the element is compressed transverse the axis of the outlet of the pouch.

Preferably the or each resiliently flexible element comprises an elongate strip of plastics material which extends
15 transverse the axis of the outlet.

Preferably, the or each elongate strip of plastics material is folded or creased intermediate its opposite ends, along a line, which extends transverse thereof, so that the central portion of the strip pulls the wall to which it is
20 attached away from the opposed wall.

Preferably the pouch comprises means for sealing the outlet following drainage.

In one embodiment, the opening means may incorporate means for sealing the outlet. In an alternative embodiment the
25 opening and sealing means are separate.

Embodiments of this invention will now be described by way of examples only and with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of the outlet of a first
30 embodiment of drainable ileostomy pouch, in accordance with the invention;

FIGURE 2 is a perspective view of the outlet of a second embodiment of drainable ileostomy pouch, in accordance with the invention;

35 FIGURE 3 is a perspective view of the outlet of a third embodiment; and

FIGURE 4 is a perspective view of the outlet of a

fourth embodiment.

Referring to Figure 1 of the drawings, there is shown a drainable ileostomy pouch comprising two opposed walls 10,11 of plastics film, which are sealed together around their peripheries to define a chamber for receiving the discharge from a patient's stoma and which are shaped to define a projecting outlet 12 for draining the pouch, the walls 10,11 being unsealed at the end of the outlet 12.

A plastics clip 13 comprises a pair of elongate arms 14,15 which are interconnected at one end and which extend transverse the axis of the outlet. A latch 17 is provided on the opposite end of one of the arms 14 for engaging a corresponding aperture 18 in the end of a other arm 15. The arms 14,15 are attached to respective opposed walls of the pouch 10,11 intermediate the opposite ends.

In use, the outlet 12 of the pouch is normally rolled up around a wire or plastics tie (not shown) which is then secured to keep the outlet rolled up and to prevent discharge escaping through the outlet 12.

When the pouch is full, the tie is unsecured and the outlet is unrolled, so that the discharge in the chamber of the pouch can be drained through the outlet 12, once the latch 17 on the clip 13 has been disengaged from the aperture 18.

Once the pouch has been fully drained, the patient can easily clean inside the outlet 12 by fully opening the clip 13, so that it pulls the opposed walls 10,11 of the outlet apart. The arms of the clip may be biased apart, so they open the outlet 12, as soon as the latch 18 is disengaged.

Referring to Figure 2 of the drawings, there is shown a second embodiment of ileostomy pouch and like parts are given like reference numerals. In this embodiment, the clip comprises a sheet of resiliently flexible metal, which is pressed to form three parallel arms 20,21,22 which are interconnected at one end. The outer ends of the outer arms 21,22 are pulled together and interconnected.

The arms 20,21,22 of the clip extend transverse the axis of the outlet 12 and terminate intermediate opposite side

edges of the outlet 12. The central arm 20 of the clip 13 is attached to one wall 10 of the outlet 12 and the outer interconnected arms 21,22 are attached to the other wall 11.

In use, the interconnection of the outer arms 21,22 applies a distortion to the clip 13, which in one position can be configured to close the outlet 12 and which in another position can be configured to open the outlet 12 by flexing the clip 13 intermediate its opposite ends.

Referring to Figure 3 of the drawings, there is shown a third embodiment of ileostomy pouch and like parts are given like reference numerals. In this embodiment, an elongate tie 30 is adhered to the wall 10 on one side of the outlet 12. The tie 30 comprises an elongate strip of paper or plastics which contains a longitudinally-extending flexible wire or wires.

Opposite ends of the tie are folded around respective opposite sides of the outlet 16. An elongate band 33 of elastomeric material extends between opposite ends of the tie 30, through a fastening attached to the opposite wall 11 of the outlet.

In use, the outlet 12 is rolled up around the tie 30 and then opposite ends of the tie 30 are folded down to keep the outlet 13 rolled up.

During discharge the ends of the tie 30 are unfolded and the outlet 30 is unrolled. The ends of the tie 30 are bent into a position where they extend generally perpendicular to the central portion of the tie 30 on the opposite side of the outlet 12: this has the effect of stretching the elastomeric band 33, thereby pulling the wall 11 of the outlet away from the opposite wall 10, to which the central portion of the tie 30 is adhered. In this manner, the outlet 12 is held open for cleaning.

Referring to Figure 4 of the drawings, there is shown a fourth embodiment of ileostomy pouch and like parts are given like reference numerals. In this embodiment, two elongate strips 40,41 of resiliently flexible plastics material are attached along their length to respective opposed walls 10,11 of the outlet 12, in registration with each other. The

plastics strips 40,41 are creased intermediate their opposite ends, along lines which extend transverse thereof.

When the outlet 12 is unrolled, the outlet can be opened for cleaning by compressing the strips 40,41 longitudinally of themselves, thereby causing the strips 40,41 to fold about their respective creases, such that the opposed walls 10,11 are pulled away from each other.

In an alternative embodiment, each strip 40,41 is naturally L-shaped in longitudinal section. Thus, when the outlet 12 is unrolled, the strips 40,41 attempt to recover their shape, thereby pulling the opposed walls 10,11 of the outlet apart to facilitate cleaning.

It will be appreciated that the outlet of an ileostomy pouch in accordance with this invention is much easier to clean than that of a conventional ileostomy pouch, since means are provided on the opposed walls of the outlet for pulling them apart. An ileostomy pouch in accordance with the invention is thus much more pleasant for patients to clean.

Claims

1. A drainable ostomy pouch comprising opposed walls of flexible sheet material, defining a chamber therebetween for receiving discharge from a patient's stoma, the walls being
5 shaped to define an outlet for draining the discharge contained in the chamber and opening means attached to the walls on opposite sides of the outlet for separating the walls and opening the outlet.
2. A drainable ostomy pouch as claimed in claim 1, in
10 which the opening means comprises first and second separate elements respectively attached to the opposed walls of the outlet of the pouch.
3. A drainable ostomy pouch as claimed in claim 2, in
15 which at least one of the elements comprises a resiliently flexible element.
4. A drainable ostomy pouch as claimed in claim 3, in which in the or each resiliently flexible element is shaped so that the wall to which it is attached is pulled away from the opposed wall as it recovers its shape.
- 20 5. A drainable ostomy pouch as claimed in claim 3, in which in the or each resiliently flexible element is shaped so that the wall to which it is attached is pulled away from the opposed wall as the element is compressed transverse the axis of the outlet of the pouch.
- 25 6. A drainable ostomy pouch as claimed in any of claim 3 to 5, in which in the or each resiliently flexible element comprises an elongate strip of plastics material which extends

transverse the axis of the outlet.

7. A drainable ostomy pouch as claimed in claim 6, in which the or each elongate strip of plastics material is folded or creased intermediate its opposite ends, along a line, which
5 extends transverse thereof, so that the central portion of the strip pulls the wall to which it is attached away from the opposed wall.

8. A drainable ostomy pouch as claimed in claim 1, in which the opening means comprises an device having first and
10 second portions attached to respective opposed walls of the outlet of the pouch.

9. A drainable ostomy pouch as claimed in claim 8, in which the first and second portions of the device are biased apart when the outlet is open.

15 10. A drainable ostomy pouch as claimed in claims 8 or 9, in which fastening means are provided for holding the first and second portions of the device together when the outlet is closed.

11. A drainable ostomy pouch as claimed in claim 8 or 9, in
20 which the first and second portions of the device are biased together when the outlet is closed.

12. A drainable ostomy pouch as claimed in any of claims 8 to 11, in which the device comprises first and second arms which are interconnected at one end and which extend transverse
25 the axis of the outlet and which respectively engage the opposed walls of the pouch.

13. A drainable ostomy pouch as claimed in any of claims 8 to 11, in which the fastening means comprises a first arm, which extends transverse the axis of the outlet, second and third arms disposed at respective opposite ends of the first
5 arm, and an elongate flexible element extending between the outer end of the second and third arms and one side wall of the outlet, the first arm being connected to the other side wall of the outlet.

14. A drainable ostomy pouch as claimed in claim 13, in
10 which the elongate element is resiliently flexible.

15. A drainable ostomy pouch as claimed in any preceding claim, in which the pouch comprises means for sealing the outlet following drainage.

16. A drainable ostomy pouch as claimed in claim 15, in
15 which the opening means incorporates means for sealing the outlet.

17. A drainable ostomy pouch substantially as herein described with reference to Figures 1, 2, 3 or 4 of the accompanying drawings.

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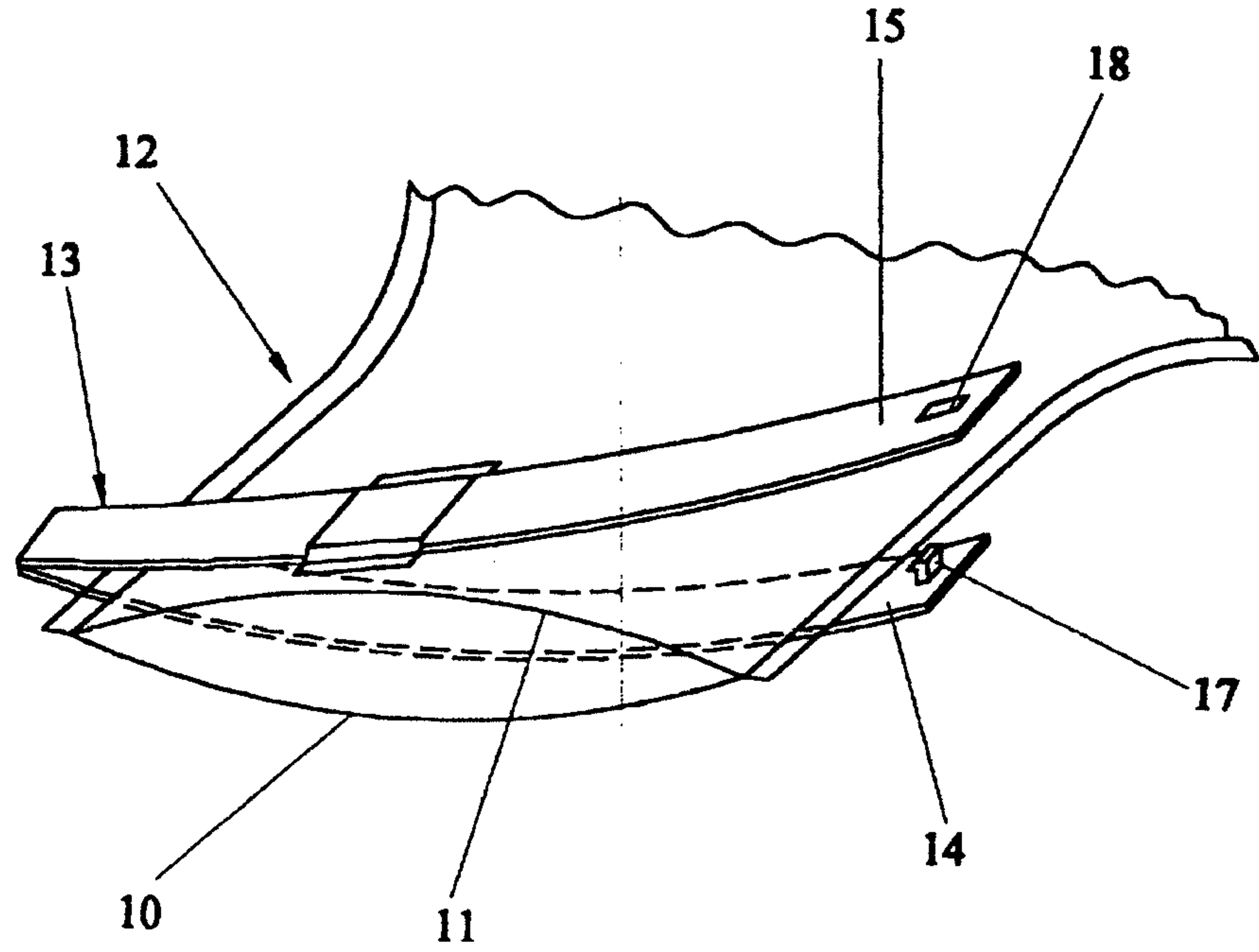


FIG. 1

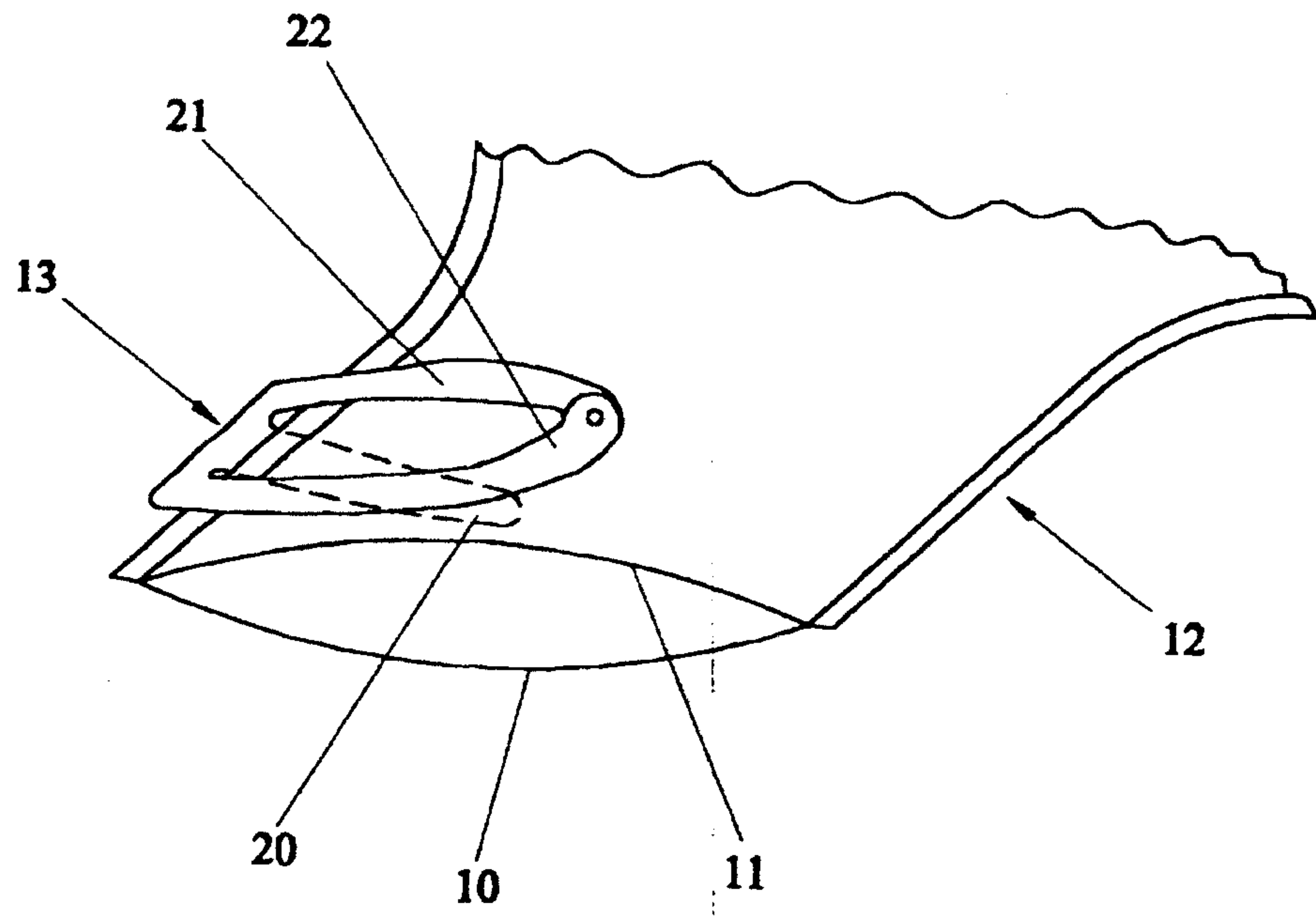


FIG. 2

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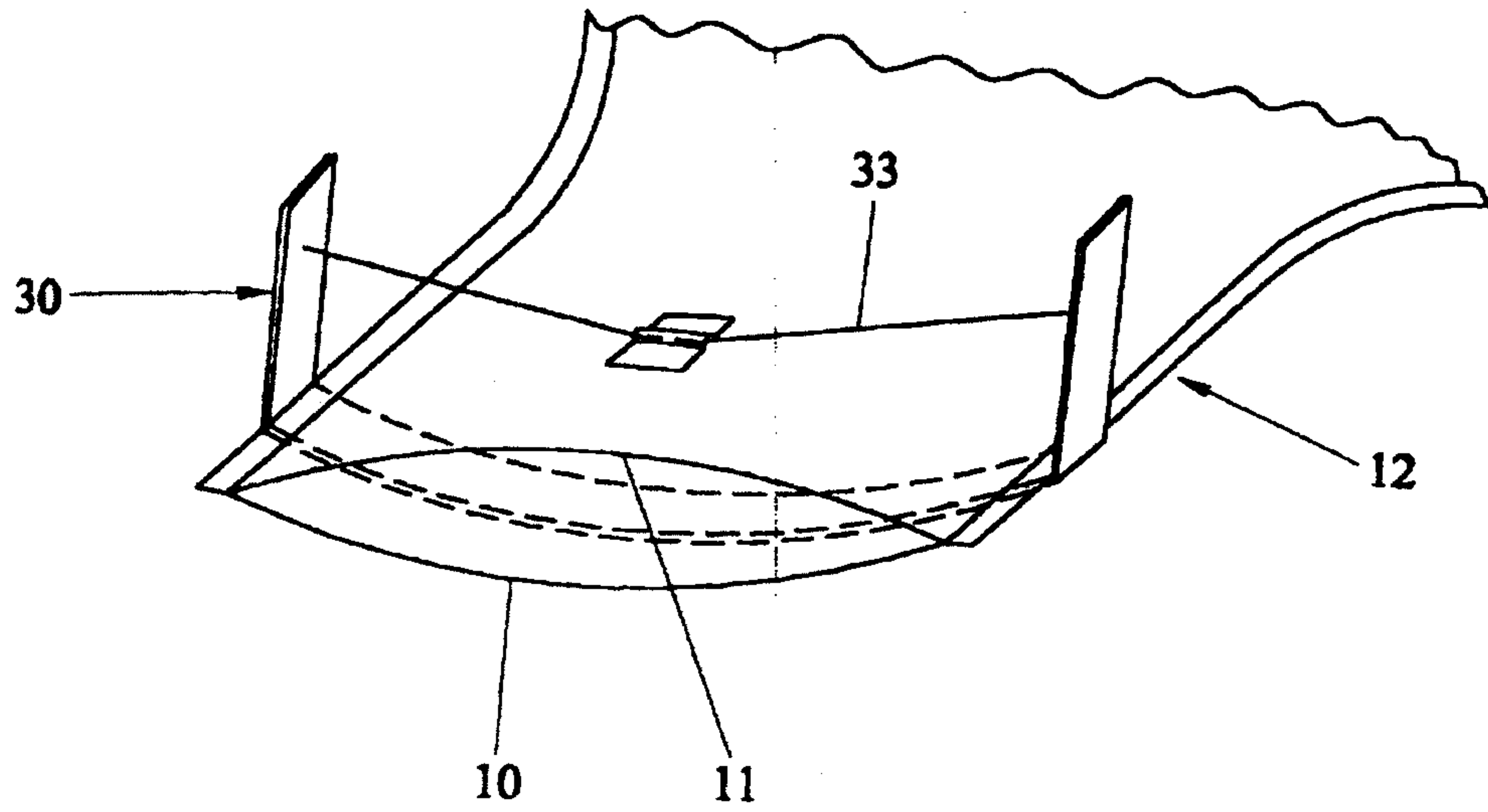


FIG. 3

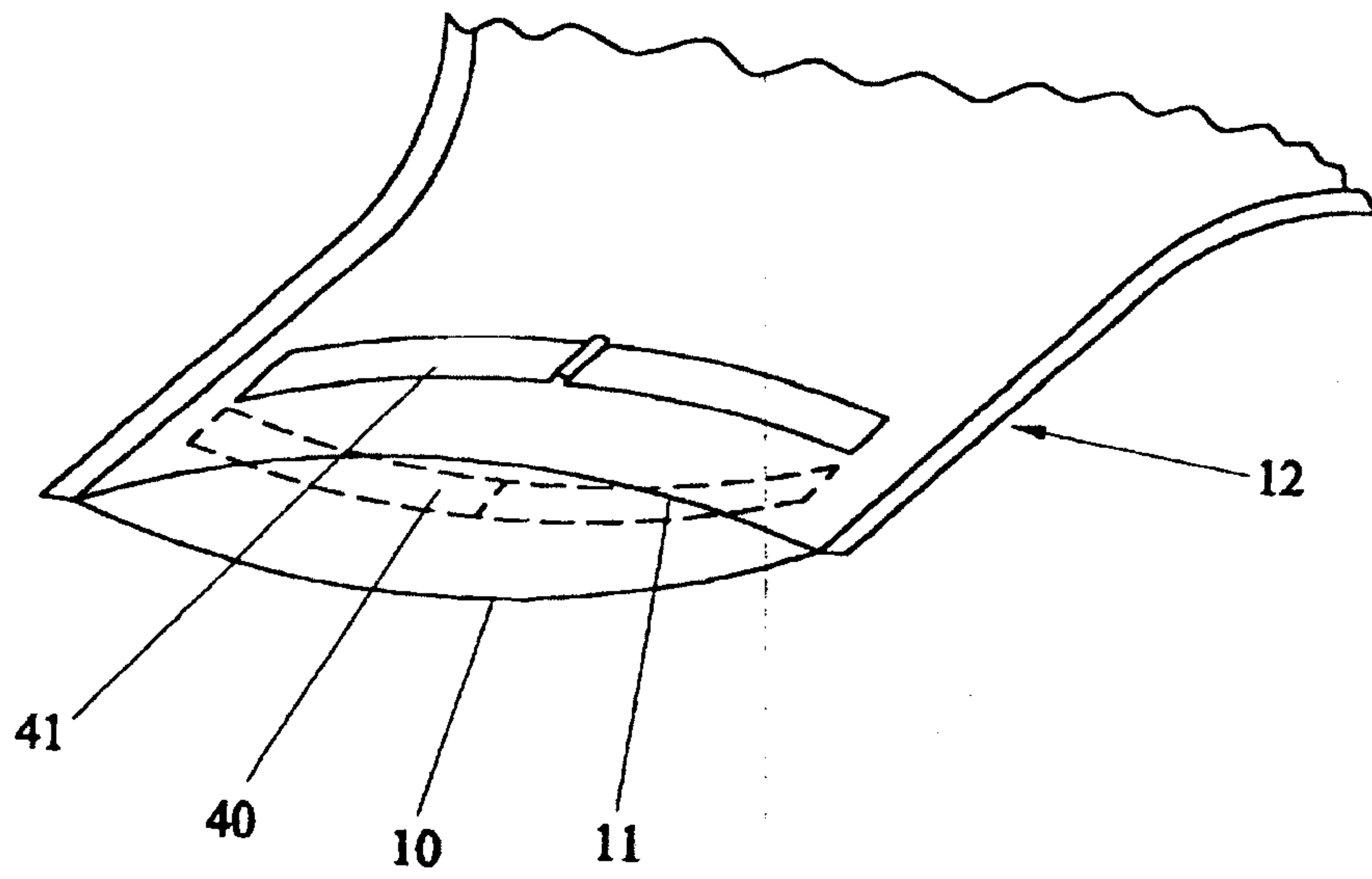


FIG. 4

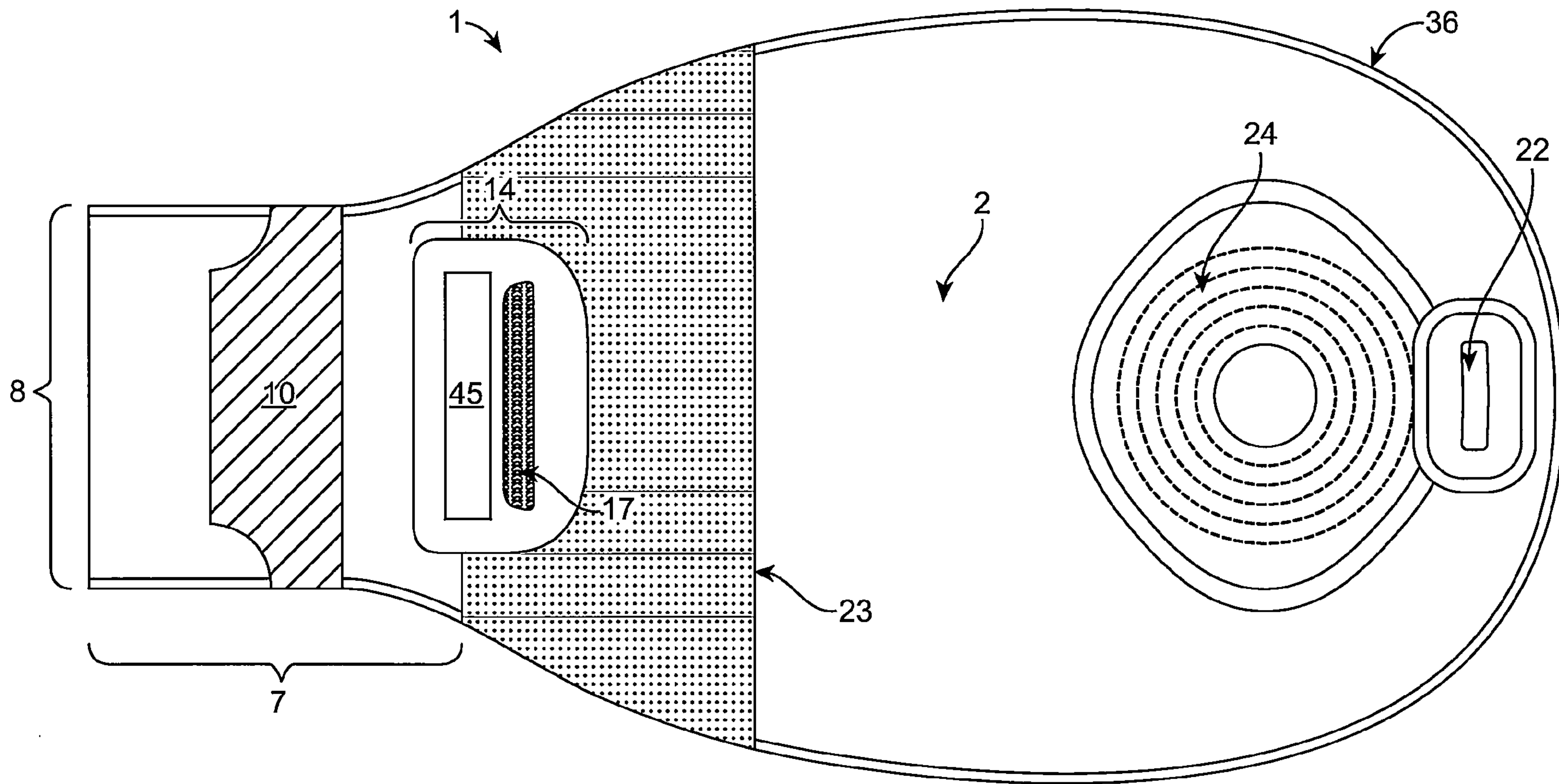


FIG. 1