(12) STANDARD PATENT (11) Application No. **AU 2014210928 B2**
(19) AUSTRALIAN PATENT OFFICE

(54) Title
Ostomy appliance

(51) International Patent Classification(s)
A61F 5/44 (2006.01) ***A61F 5/445*** (2006.01)
A61F 5/441 (2006.01)

(21) Application No: **2014210928** (22) Date of Filing: **2014.01.28**

(87) WIPO No: **WO14/118518**

(30) Priority Data

(31) Number	(32) Date	(33) Country
1301858.5	**2013.02.01**	**GB**

(43) Publication Date: **2014.08.07**
(44) Accepted Journal Date: **2018.02.01**

(71) Applicant(s)
Salts Healthcare Limited

(72) Inventor(s)
Argent, Peter;Wiltshire, Neil

(74) Agent / Attorney
Adams Pluck, PO BOX 905, Hornsby, NSW, 2077, AU

(56) Related Art
US 3570490 A
US 2008/0269699 A1
US 4319571 A
WO 2011/150936 A1
WO 2007/134608 A2
US 3780739 A
US 4219023 A

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 August 2014 (07.08.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/118518 A1

(51) International Patent Classification:
A61F 5/44 (2006.01) *A61F 5/445* (2006.01)
A61F 5/441 (2006.01)

(21) International Application Number:
PCT/GB2014/050212

(22) International Filing Date:
28 January 2014 (28.01.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1301858.5 1 February 2013 (01.02.2013) GB

(71) Applicant: **SALTS HEALTHCARE LIMITED** [GB/GB]; Richard Street, Aston, Birmingham, West Midlands B7 4AA (GB).

(72) Inventors: **ARGENT, Peter**; Salts Healthcare Limited, Richard Street, Aston, Birmingham, West Midlands B7 4AA (GB). **WILTSHIRE, Neil**; Salts Healthcare Limited, Richard Street, Aston, Birmingham, West Midlands B7 4AA (GB).

(74) Agent: **FORRESTERS**; Rutland House, 148 Edmund Street, Birmingham, West Midlands B3 2JA (GB).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

(54) Title: OSTOMY APPLIANCE

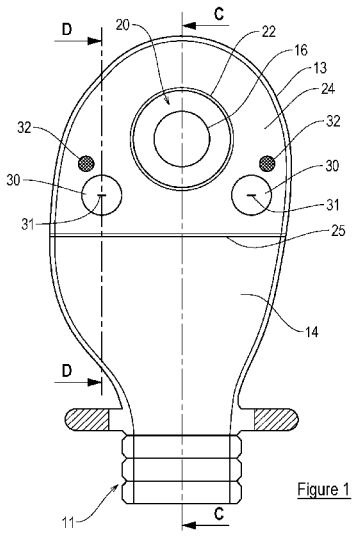


Figure 1

(57) Abstract: An ostomy appliance (10) having first (12) and second (14) walls connected to each other at or near their peripheries, the first wall having a stoma-receiving opening (16), and a waste collecting cavity defined between the first and second walls, wherein the second wall includes viewing portion (20) through which the stoma-receiving opening can be viewed.

WO 2014/118518 A1

2014210928 21 Dec 2017

Ref: H13181WO

Title: Ostomy appliance

Description of Invention

The invention relates to an ostomy appliance for collecting human waste. It should be understood that the invention can be utilised in drainable and non-drainable ostomy appliances. The invention is applicable to both one piece and two piece ostomy appliances.

In a first aspect of the present invention provides an ostomy appliance having: first and second walls connected to each other at or near their peripheries, the first wall having a stoma-receiving opening; and a waste collecting cavity defined between the first and second walls, wherein an upper part of the second wall opposite the stoma-receiving opening is transparent to provide a viewing portion through which the stoma-receiving opening can be viewed and a lower part of the second wall is opaque and the upper and lower parts of the second wall are separate flexible sheets which are connected to each other.

Said connection may extend laterally across the appliance.

The appliance may include an outlet positioned at a bottom thereof for permitting emptying of the waste collecting cavity, and wherein a portion of the second wall positioned adjacent the outlet is opaque.

The appliance may include a further wall connected to the first and second walls at or near their peripheries, the further wall including an opening or a transparent portion which is substantially aligned with the viewing portion of the second wall.

2014210928 21 Dec 2017

The appliance may include an intermediate wall positioned in between the first and second walls which includes an opening or a transparent portion which is substantially aligned with the viewing portion of the second wall.

The intermediate wall may be connected to the second wall at a connection zone.

Said connection zone may be positioned around the viewing portion of the second wall.

Said connection zone may extend completely around the viewing portion of the second wall.

The first and intermediate walls may be substantially the same length and wherein the second wall is shorter in length than the first and intermediate walls.

The appliance may include a further viewing portion through which a lower portion of the waste collecting cavity can be viewed.

The appliance may include two or more viewing portions through which the stoma-receiving opening can be viewed.

A gas flow path may be provided from the waste collecting cavity though the second wall, and if present, an intermediate wall, to atmosphere.

The gas flow path may include one or more gas vents in the wall(s) of the appliance, optionally the or each gas vent includes or is covered by a filter.

The appliance may include a gas filter assembly supporting one or more gas filters, wherein the assembly includes a pair of walls which are connected to

2014210928 21 Dec 2017

each other, and wherein the gas filter assembly is connected to the viewing portion of the second wall.

The gas filter assembly may form an integral part of the second wall.

The gas filter assembly may define two gas filter chambers, each chamber containing at least one gas filter.

The gas filter chambers may be spaced from each other, preferably by a portion of wall.

The gas filter assembly may be manufactured from a single sheet of material, with each gas chamber being defined by a folded portion of the sheet.

Each folded portion may be folded towards a central region of the assembly.

A remote edge of each folded portion may be connected to the remainder of the sheet to form the gas filter chamber, and preferably the remote edge is heat welded in place.

Embodiments of the invention will now be described by way of example only with reference to the accompanying drawings, of which:-

Figure 1 is a rear view of a first embodiment of an ostomy appliance in accordance with the present invention;

Figure 2 is a front view of a first embodiment of an ostomy appliance in accordance with the present invention;

Figure 3 is a cross-sectional view through the plane D-D of figure 1;

Figure 4 is a cross-sectional view through the plane C-C of figure 1;

Figure 5 is a rear view of a second embodiment of an ostomy appliance in accordance with the present invention;

Figure 6 is a front view of a second embodiment of an ostomy appliance in accordance with the present invention;

Figure 7 is a cross-sectional view through the plane B-B of figure 5;

Figure 8 is a cross-sectional view through the plane A-A of figure 5;

Figure 9 is a plan view of a component part of the second embodiment of the present invention; and

Figures 10 to 12 are side views of the component part of figure 9 is progressive stages of manufacture.

Referring firstly to figures 1, 2, 3 and 4, these show a first embodiment of an ostomy appliance in accordance with the present invention, shown generally at 10. The general construction of the ostomy appliance 10 is similar to those well known in the art and in that sense it includes first 12 and second 14 walls connected to each other at or near their peripheries, for example by heat welding or using an adhesive. The walls 12, 14 are opaque other than where indicated below. The ostomy appliance shown is a drainable appliance, meaning that its contents can be emptied through an opening 11 between the walls 12, 14.

The first wall 12 has a stoma-receiving opening 16 and is connected to a generally circular flange 18 which is manufactured from the hydrocolloid

material, for adhering the appliance 10 to a user around their stoma. The first 12 and second 14 walls define a waste collecting cavity (seen more clearly in figure 4).

The ostomy appliance 10 in accordance with the present invention advantageously includes a viewing portion 20 in the second wall 14 thereof through which the stoma receiving opening 16, and thus the stoma, can be viewed by a user. In this embodiment the viewing portion 20 is generally circular although it should be appreciated that it could take many other forms so long as it is possible for the user to view at least a significant portion of the stoma-receiving opening 16.

In the present invention the viewing portion is a transparent portion of an upper part of the second wall 14 generally opposite the stoma receiving opening 16. In more detail, as can be seen from figures 1, 3 and 4, the second wall 14 includes, in an upper region thereof, an aperture 22 which defines the viewing portion 20 through which the stoma-receiving opening can be seen. The aperture 22 is closed by a transparent additional wall 24 which is connected to an exterior surface of the second wall 14 at or near its peripheries 13, by a linear connection region 25, and around the aperture 22 (e.g. further heat welds or adhesives).

As best seen in figure 1 the appliance 10 includes two filters 30 which permit gas to escape from the space between the walls 14, 24 to atmosphere. Each gas filter 30 is positioned on an internally facing surface of the wall 24 and is adhered thereto adjacent an aperture (e.g. a slit) 31 in the wall 24. As can be seen from figure 1 the appliance 10 also includes a pair of gas flow path openings 32 each of which is positioned in the upper region (i.e. that which is covered by the wall 24) of the wall 14 and serves to provide a gas flow path between the main waste collecting cavity (between walls 12, 14) and the cavity between the walls 14 and 24.

Now referring to figures 5 to 8 these show a second embodiment of an ostomy appliance 10′ in accordance with the present invention. Feature similar to those in the first embodiment have been given the same reference numeral with the addition of a prime (‘) symbol and this will not be described in any further detail with regard to this embodiment.

This embodiment differs from the first embodiment in the arrangement and construction of the viewing portion 20′ and the gas filters 30′. Rather than the viewing portion 20′ being a circular portion, in this embodiment it is an upper portion 14′b of the second wall 14’. This D-shaped portion 14’b of the wall 14’ is transparent and thus it is possible for the user to view the stoma-receiving opening 16′. The remainder of the wall 14’ is opaque as is the entire wall 12’.

In the ostomy appliance 10′ the gas filters 30′ are provided as part of a gas filter assembly 40’ which in the present example forms an integral part of the second wall 14’. In other words the gas filter assembly 40’ is connected to and positioned in between the upper 14′b and lower 14′a portions of the second wall 14’. The gas filter assembly 40’ is therefore connected to the viewing portion 20’.

The gas filter assembly 40’ defines, in the present example, two gas filter chambers, each chamber containing one gas filter 30′. It should be appreciated, however, that fewer or more gas filter chambers could be provided and the number of gas filters within each chamber can be more than one. In the present example, as will become apparent hereinafter, the gas filter chambers are spaced from each other by a portion of wall 29’.

Turning to figures 9 through 12, these show the gas filter assembly 40’ in plan view (figure 9) and then in its progressive stages of manufacture (figures 10 through 12). As can be seen from figure 9 the gas assembly 40’ is a

strip/sheet of material (identical or similar to the material used for the walls of the appliance 10' - it must be liquid and gas impermeable) and is generally rectangular. Each gas chamber is defined by a folded end portion 41' of the sheet. Positioned either side of the central wall portion 29' is a portion of the sheet onto which the folded portion 41' is folded. This portion of the sheet includes a gas flow path 32' which in this example is covered by a gas permeable membrane 33'. As can be seen from figures 11 and 12 remote portions 41' of the sheet are folded back towards the central wall portion 29' where they are then adhered to the remainder of the sheet at linear connection zones 27'. As seen in figure 12 this provides a gas filter assembly 40' including a pair of gas filter chambers which are spaced from each other by the wall portion 29'. This component part is then connected to the upper transparent portion 14'b of the second wall 14' at lateral weld line 26' and to the lower portion 14'A of the wall 14' at the linear lateral weld line 26'. The gas filter assembly 40' thus becomes an integral part of the second wall 14' whilst permitting waste gases to exit from the main cavity (between the walls 12', 14'), through the gas chambers and to atmosphere.

It will be appreciated that any of the features of the second embodiment can be incorporated into the first embodiment, and vice versa, without departing with the scope of the present invention.

When used in this specification and claims, the terms "comprises" and "comprising" and variations thereof mean that the specified features, steps or integers are included. The terms are not to be interpreted to exclude the presence of other features, steps or components.

The features disclosed in the foregoing description, or the following claims, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, as appropriate, may, separately, or in any

combination of such features, be utilised for realising the invention in diverse forms thereof.

2014210928 21 Dec 2017

CLAIMS

1. An ostomy appliance having:-

first and second walls connected to each other at or near their peripheries, the first wall having a stoma-receiving opening; and

a waste collecting cavity defined between the first and second walls,

wherein an upper part of the second wall opposite the stoma-receiving opening is transparent to provide a viewing portion through which the stoma-receiving opening can be viewed and a lower part of the second wall is opaque and the upper and lower parts of the second wall are separate flexible sheets which are connected to each other.

2. An ostomy appliance according to claim 1 wherein said connection extends laterally across the appliance.

3. An ostomy appliance according to any preceding claim wherein the appliance includes an outlet positioned at a bottom thereof for permitting emptying of the waste collecting cavity, and wherein a portion of the second wall positioned adjacent the outlet is opaque.

4. An ostomy appliance according to any preceding claim wherein the appliance includes a further wall connected to the first and second walls at or near their peripheries, the further wall including an opening or a transparent portion which is substantially aligned with the viewing portion of the second wall.

5. An ostomy appliance according to any preceding claim wherein the appliance includes an intermediate wall positioned in between the first and second walls which includes an opening or a transparent portion which is substantially aligned with the viewing portion of the second wall.

2014210928 21 Dec 2017

6. An ostomy appliance according to claim 5 wherein the intermediate wall is connected to the second wall at a connection zone.

7. An ostomy appliance according to claim 6 wherein said connection zone is positioned around the viewing portion of the second wall.

8. An ostomy appliance according to claim 6 or claim 7 wherein said connection zone extends completely around the viewing portion of the second wall.

9. An ostomy appliance according to any one of claims 5 to 8 wherein the first and intermediate walls are substantially the same length and wherein the second wall is shorter in length than the first and intermediate walls.

10. An ostomy appliance according to any preceding claim wherein the appliance includes a further viewing portion through which a lower portion of the waste collecting cavity can be viewed.

11. An ostomy appliance according to any preceding claim wherein the appliance includes two or more viewing portions through which the stoma-receiving opening can be viewed.

12. An ostomy appliance according to any preceding claim wherein a gas flow path is provided from the waste collecting cavity though the second wall, and if present, an intermediate wall, to atmosphere.

13. An ostomy appliance according to any preceding claim wherein the gas flow path includes one or more gas vents in the wall(s) of the appliance, optionally the or each gas vent includes or is covered by a filter.

2014210928 21 Dec 2017

14. An ostomy appliance according to any preceding claim wherein the appliance includes a gas filter assembly supporting one or more gas filters, wherein the assembly includes a pair of walls which are connected to each other, and wherein the gas filter assembly is connected to the viewing portion of the second wall.

15. An ostomy appliance according to claim 14 wherein the gas filter assembly forms an integral part of the second wall.

16. An ostomy appliance according to claim 14 or claim 15 wherein the gas filter assembly defines two gas filter chambers, each chamber containing at least one gas filter.

17. An ostomy appliance according to claim 15 wherein the gas filter chambers are spaced from each other, preferably by a portion of wall.

18. An ostomy appliance according to claim 14, claim 15, claim 16 or claim 17 wherein the gas filter assembly is manufactured from a single sheet of material, with each gas chamber being defined by a folded portion of the sheet.

19. An ostomy appliance according to claim 18 wherein each folded portion is folded towards a central region of the assembly.

20. An ostomy appliance according to claim 19 wherein a remote edge of each folded portion is connected to the remainder of the sheet to form the gas filter chamber, and preferably the remote edge is heat welded in place.

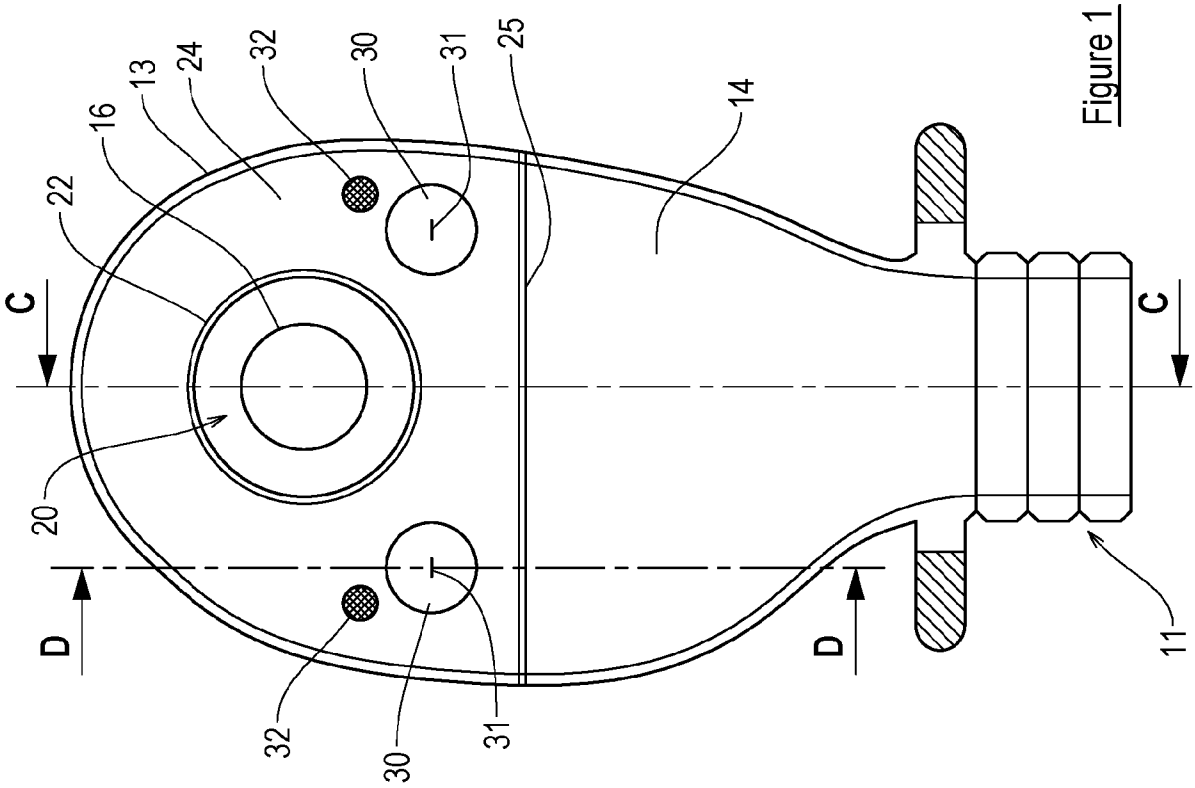


Figure 1

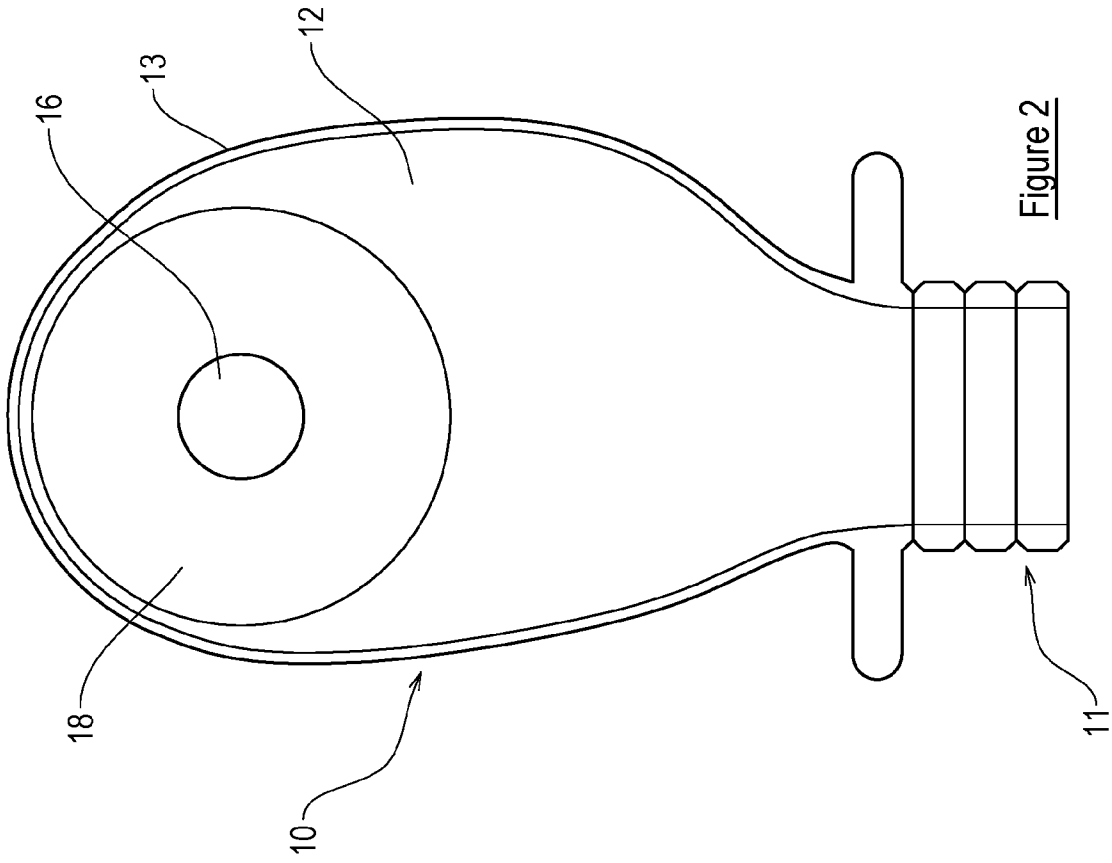


Figure 2

Figure 8

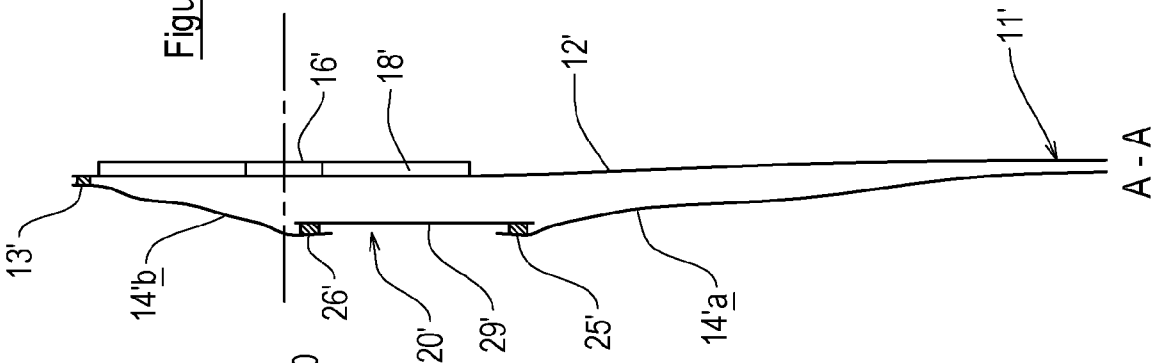


Figure 7

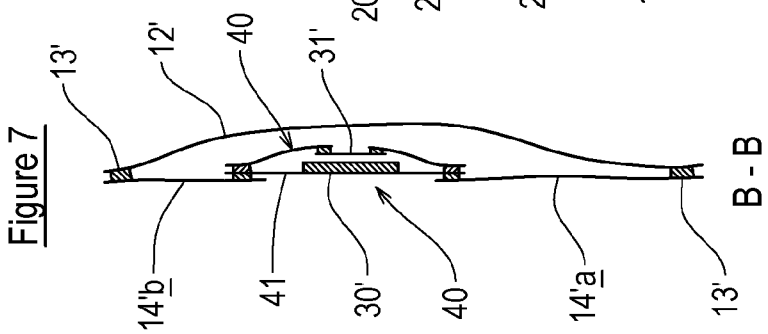


Figure 4

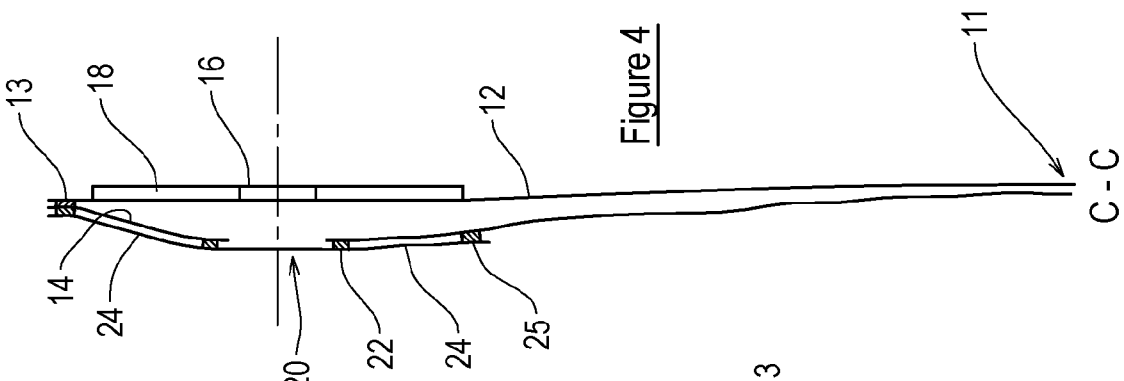
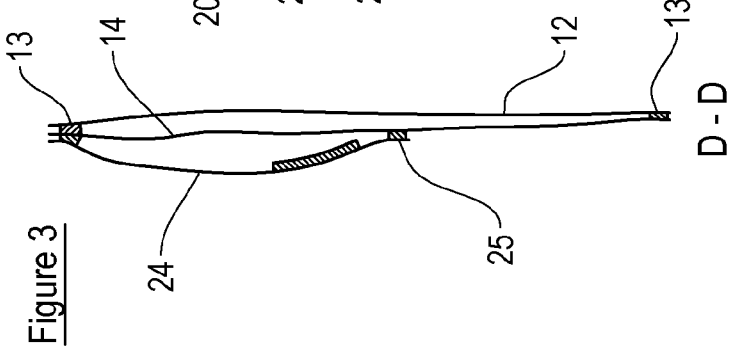


Figure 3



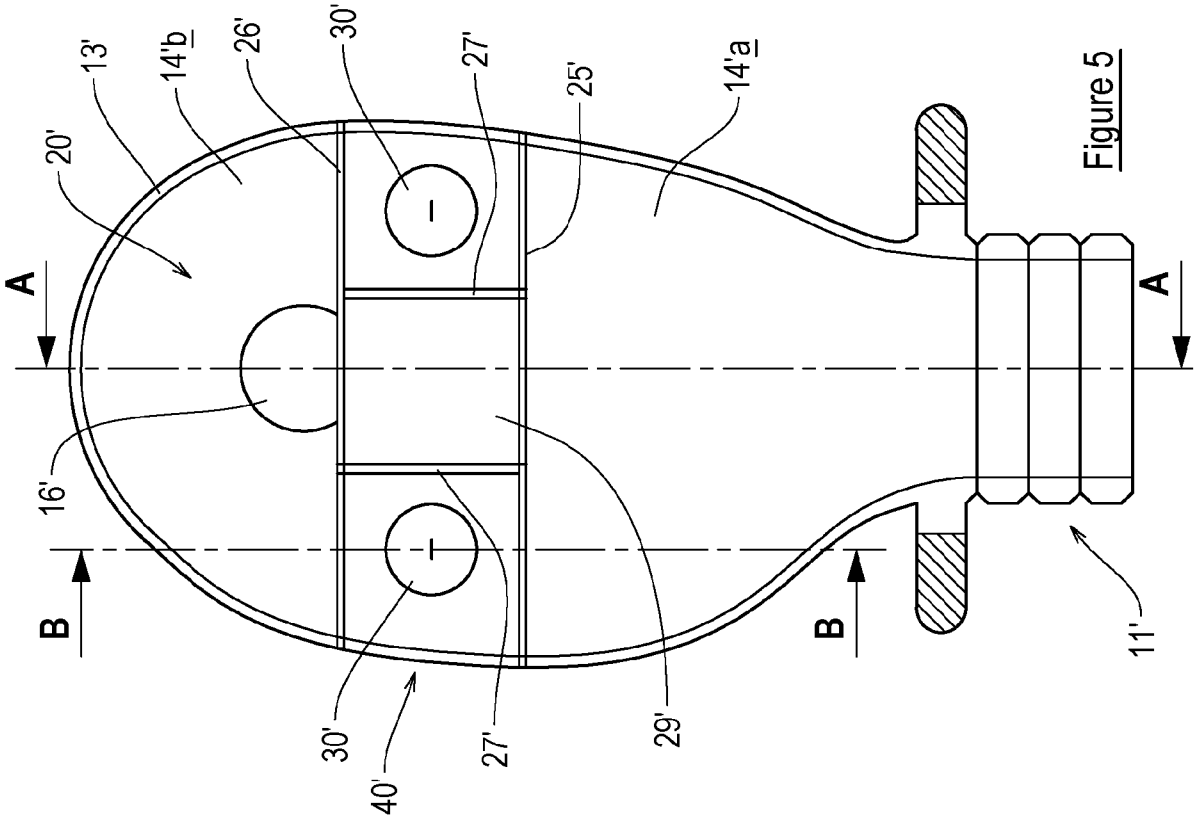


Figure 5

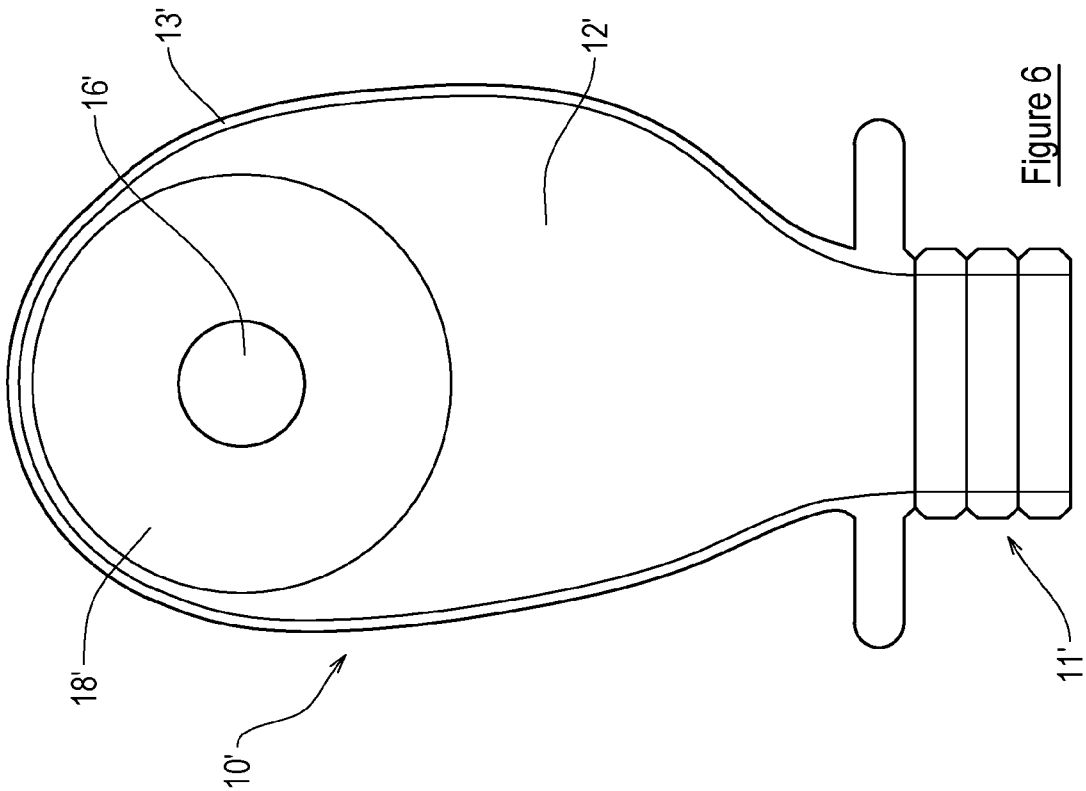


Figure 6

Figure 9

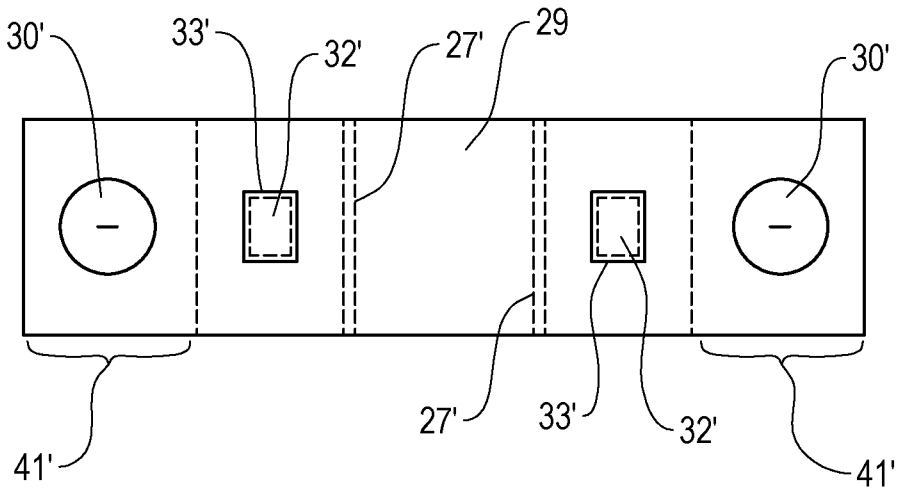


Figure 10

Figure 11

Figure 12