

(12) **BREVET CANADIEN**  
**CANADIAN PATENT**

(13) C

(86) Date de dépôt PCT/PCT Filing Date: 2011/05/17  
(87) Date publication PCT/PCT Publication Date: 2011/12/08  
(45) Date de délivrance/Issue Date: 2018/06/26  
(85) Entrée phase nationale/National Entry: 2012/11/14  
(86) N° demande PCT/PCT Application No.: EP 2011/057996  
(87) N° publication PCT/PCT Publication No.: 2011/151175  
(30) Priorité/Priority: 2010/06/03 (GB1009321.9)

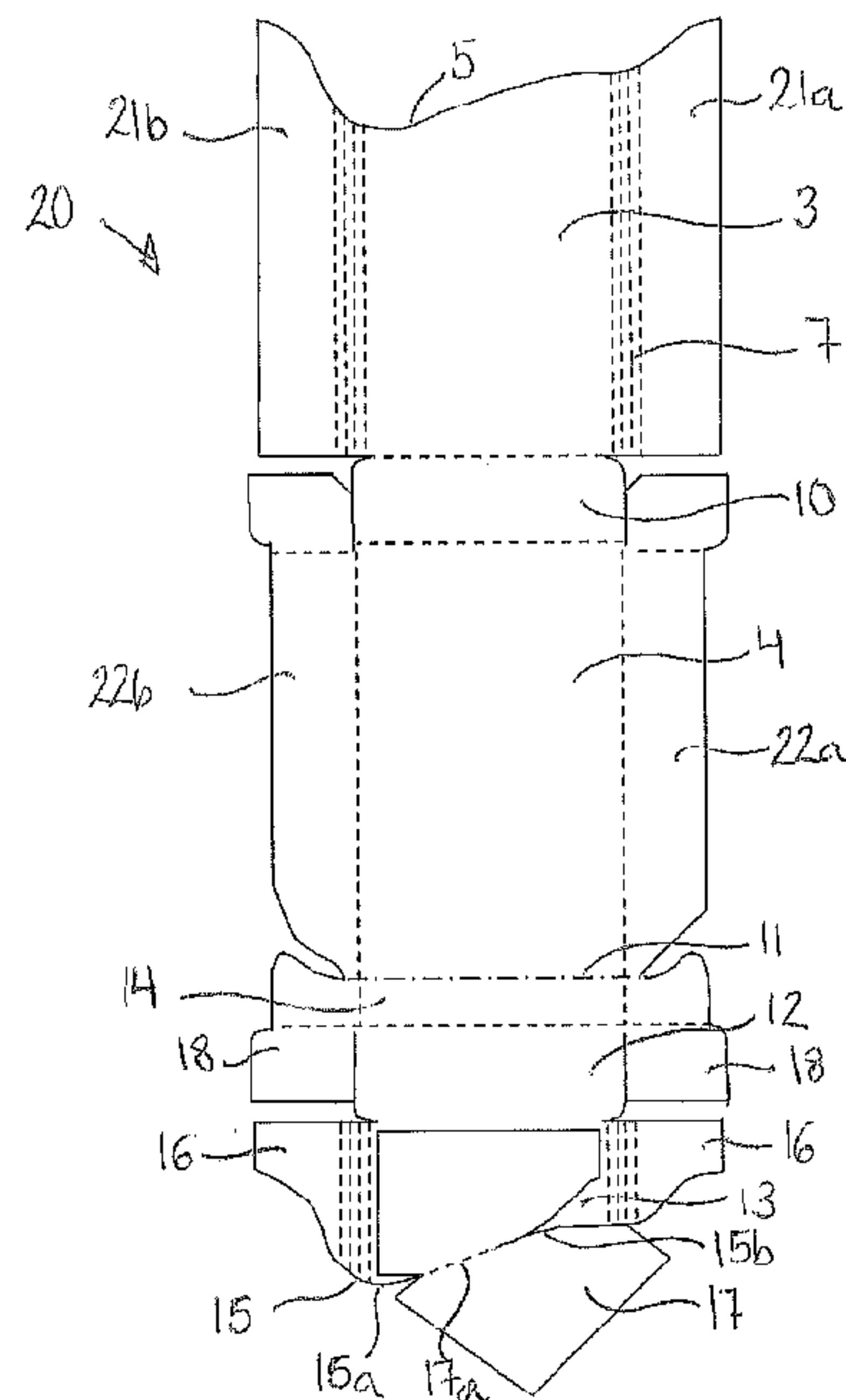
(51) Cl.Int./Int.Cl. *B65D 85/10* (2006.01),  
*B65D 5/66* (2006.01)

(72) Inventeur/Inventor:  
HOLFORD, STEVEN, GB

(73) Propriétaire/Owner:  
BRITISH AMERICAN TOBACCO (INVESTMENTS)  
LIMITED, GB

(74) Agent: FETHERSTONHAUGH & CO.

(54) Titre : PAQUET POUR ARTICLES A FUMER  
(54) Title: A PACK FOR SMOKING ARTICLES



(57) Abrégé/Abstract:

(57) ABSTRACT:

A pack for smoking articles comprising a lid (9) and a body (2) formed from a material having a thickness is disclosed. The lid has a front wall (13) with a lower front wall edge and a flap (17) attached to a portion of said lower front wall edge by a fold-line (17a) formed by partially cutting through the thickness of the material so that, when the flap is folded about said fold-line so as to lie against an inner surface of the lid front wall, said portion of the lower front wall edge to which the flap is attached is aligned with the remainder of the lower front wall edge.

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

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
8 December 2011 (08.12.2011)(10) International Publication Number  
**WO 2011/151175 A1**(51) International Patent Classification:  
**B65D 85/10** (2006.01)      **B65D 5/66** (2006.01)(74) Agents: **GREY, Ian** et al.; 20 Little Britain, London EC1A 7DH (GB).(21) International Application Number:  
**PCT/EP2011/057996**

(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, 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, IS, JP, KE, KG, KM, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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.

(22) International Filing Date:  
17 May 2011 (17.05.2011)

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

(25) Filing Language:  
English(26) Publication Language:  
English(30) Priority Data:  
1009321.9      3 June 2010 (03.06.2010)      GB(71) Applicant (for all designated States except US):  
**BRITISH AMERICAN TOBACCO (INVESTMENTS) LIMITED** [GB/GB]; Globe House, 1 Water Street, London WC2R 3LA (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HOLFORD, Steven** [GB/GB]; British American Tobacco (Investments) Limited, Globe House, 1 Water Street, London WC2R 3LA (GB).*[Continued on next page]*

(54) Title: A PACK FOR SMOKING ARTICLES

**(57) Abstract:** A pack for smoking articles comprising a lid (9) and a body (2) formed from a material having a thickness is disclosed. The lid has a front wall (13) with a lower front wall edge and a flap (17) attached to a portion of said lower front wall edge by a fold- line (17a) formed by partially cutting through the thickness of the material so that, when the flap is folded about said fold- line so as to lie against an inner surface of the lid front wall, said portion of the lower front wall edge to which the flap is attached is aligned with the remainder of the lower front wall edge.

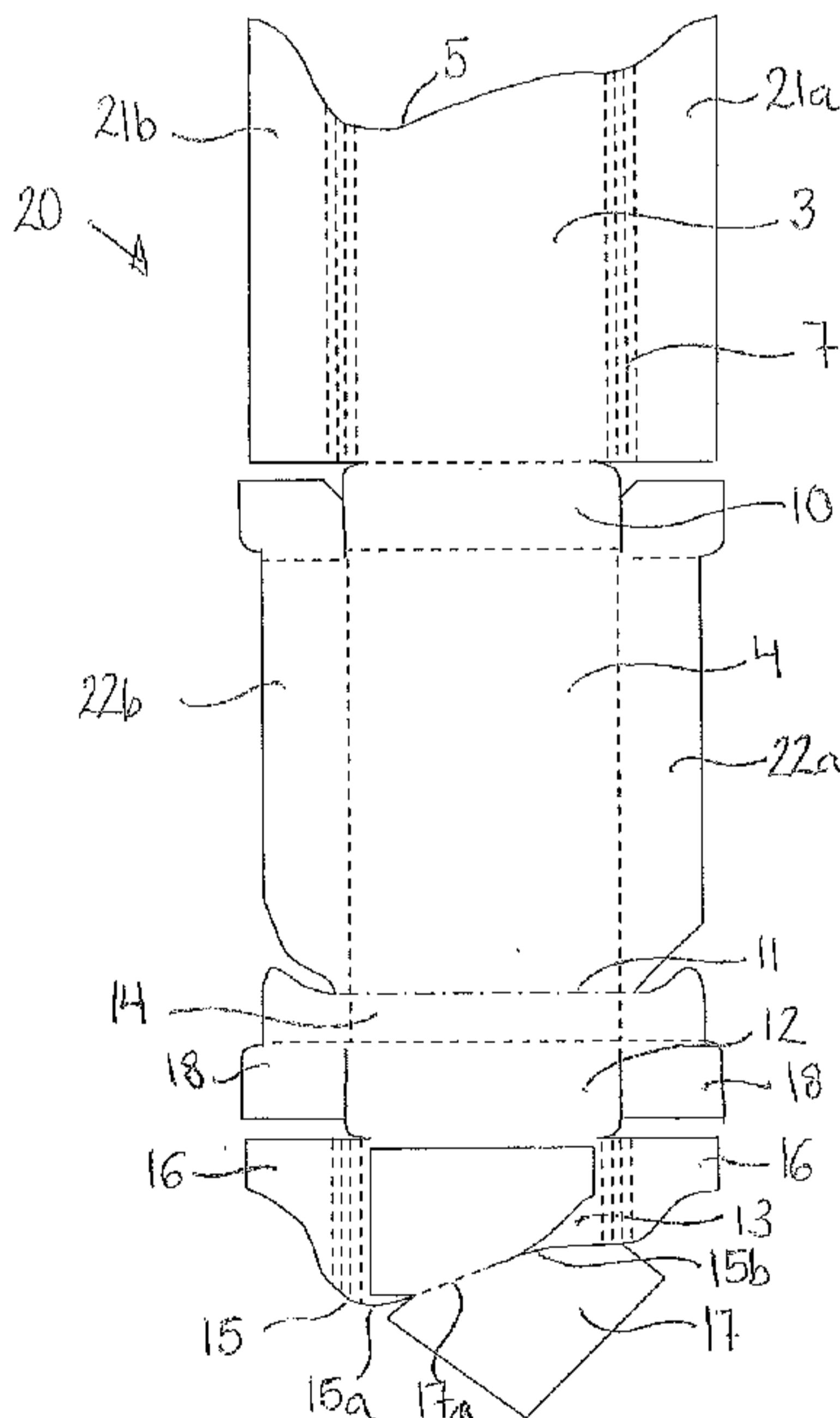


Figure 2

**WO 2011/151175 A1**



---

**Published:**

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

## A Pack for Smoking Articles

### Description

The present invention relates to a pack for smoking articles.

5 Smoking articles such as cigarettes are typically stored in packs and the overall function of the packs is to store and protect the cigarettes from mechanical and environmental damage. Various configurations of cigarette packs are known from the prior art including hinged-lid and shell packs with slidable inserts. A hinged-lid 10 pack comprises a body and a lid so as to define a space for holding a bundle of smoking articles. The lid is attached to a rear panel of the body along a hinge line so that it can rotate between an open and closed position. In a closed position a lower edge of a front wall of the lid abuts an upper edge of a front panel of the body so as to create a flush outer finish. The front wall of the lid is typically formed with a flap 15 folded about a fold-line aligned with the lower edge of the front wall of the lid so as to form a double layer to provide strength and prevent bowing of the lid as well as smiling or yawning of the overall pack in which the lower edge of the lid front wall does not lie close to the upper edge of the front panel of the body of the pack 20 following repeated opening and closing of the pack.

20 Generally, the line of closure between the front wall of the lid and the front panel of the body is straight and extends parallel to the hinge line about which the lid of the pack rotates. However, it is known from US6457580 to provide a pack for 25 smoking articles wherein the line of closure of the front wall of the lid and the front panel of the body is curved.

A problem with the pack having a curved lower lid edge is that it is difficult to provide a double layer of the front wall of the lid using a flap as described above because in contrast to conventional hinged-lid pack where the flap easily folds about 30 the fold-line aligned with the straight lower edge of the front wall of the lid, it is impossible to fold the flap about a curved edge.

US6457580 provides a pack with a curved lower lid edge and seeks to overcome the problem referred to above by providing the lower lid edge with a straight or linear portion to which the flap is attached along a straight fold-line and which extends between curved sections of the lower edge of the lid. The closure line thereby

5 comprises both straight and curved sections. In the pack known from US6457580 the fold-line is formed by providing a crease between the lower lid edge and the flap. However, a crease does not always ensure that the flap folds exactly about the fold-line and so may create a misalignment or a step relative to the adjacent curved lower edges of the front wall of the lid to which the flap is not attached resulting in

10 a visually unacceptable appearance.

The present invention seeks to provide a pack for holding smoking articles that overcomes or substantially alleviates the problems mentioned above.

15 Accordingly there is provided a pack for smoking articles comprising a lid and a body formed from a material having a thickness, the lid having a front wall with a lower front wall edge and a flap attached to a portion of said lower front wall edge by a fold-line, wherein the fold-line is linear, and at least a part of said fold-line being formed by partially cutting through the thickness of the material so that,

20 when the flap is folded about said fold-line so as to lie against an inner surface of the lid front wall, said portion of the lower front wall edge to which the flap is attached is aligned with the remainder of the lower front wall edge, wherein the body comprises an upper edge having a similar profile to the lower front wall edge of the lid so that when the pack is in a closed position the upper edge of the body

25 and the lower front wall edge abut across the width of the lid front wall and said portion of the lower front wall edge to which the flap is attached is located between curved lower front wall edge sections.

30 Preferably, the cut extends continuously along said portion of said lower front wall edge.

In one embodiment, the cut partly extends along said portion of said lower front wall edge.

The remainder of the lower front wall edge may be curved.

5

The portion of the lower front wall edge to which the flap is attached may be located between curved lower front wall edge sections.

Preferably, the upper edge of the body and the lower front wall edge form a closure  
10 line having a curved and a linear section.

Conveniently, the cut is formed by scoring.

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

Figure 1 shows a pack for holding a bundle of smoking articles according to the  
present invention;

Figure 2 shows a blank for forming the pack in Figure 1; and

Figure 3 shows a blank for forming an inner frame to be inserted into the pack of  
20 Figures 1 and 2.

Referring now to the drawings, there is shown in Figure 1 a pack for holding a  
bundle of smoking articles according to the present invention. Figure 2 shows a  
blank for forming the pack in Figure 1 where the solid lines denote cut lines or  
25 outer borders of the blank 20 and the dashed lines denote lines which are formed  
by folding. The pack 1 comprises a body 2 and a lid 9 having a closure line 8. The  
closure line 8 between a lower edge of the lid and an upper edge of the body of the  
pack has curved regions spaced from each other by a central straight or linear  
portion.

The body 2 of the pack 1 is formed with opposing front and rear panels 3, 4 separated by two opposing left and right side panels 21a, 21b. The corners 7 formed at the junctions of the front panel 3 and the side panels 21a, 21b may be rounded. The front 3 and side panels 21a, 21b are formed with upper edges 5 which abut corresponding lower edges 15 of the lid 9 so as to form the closure line 8 as will become apparent from the description below. It will also become apparent from Figure 2 that the body 2 is formed with a base panel 10.

With reference to Figures 1 and 2, the body 2 is connected to a rear wall 14 of the lid 9 along a fold-line 11. The lid 9 is further provided with a top wall 12, extending between the rear wall 14, a front wall 13 and left and right side walls 16 of the lid 9. The front 13 and side walls 16 of the lid 9 are formed with lower edges 15 which mate with the upper edges 5 of the body 2 when the pack 1 is closed. As can be appreciated from Figure 1 the lower and upper edges 15, 5 of respective front wall 13 of the lid 9 and front panel 3 of the body 2, form said closure line 8.

In Figure 2, it can be appreciated that the blank 20 is elongate in shape and comprises the body 2 and the lid 9 of the pack 1 described above. The body 2 of the blank 20 is formed with the front panel 3, the base panel 10 and the rear panel 4. The front panel 3 comprises the left and right side wall 21a, 21b which overlap side flaps 22a, 22b extending from the rear panel 4 when the blank 20 is in a folded position. The dashed lines of the blank located between the front wall 3 and its side walls 21a, 21b as shown in Figure 2 indicate that the corners formed when the blank is folded are rounded.

The lid 9 of the blank 20 further comprises the rear wall 14, top wall 12 and the front wall 13 as previously described. The top and rear walls 12, 14 of the lid 9 are formed with side flaps 18 which are overlapped by the side walls 16 of the front wall 13 of the lid 9 when the blank 20 is in a folded position. The front wall 13 of the lid 9 is further formed with a flap 17 which is attached to a straight portion of the lid edge by a fold-line 17a. The flap 17 folds inwardly so that it lies against the inner surface of the front wall 13 of the lid 9. The flap 17 provides stability and strength to the lid 9 as it together with the front wall 13 of the lid 9 form a double

layer. In order to achieve an aesthetic appearance of the pack 1 and to avoid a step or roughness along the lower lid edge 15 where the flap 17 extends, the fold-line 17a is continuously partially cut or scored through its thickness and along its length from a left adjacent lower edge section 15a to a right adjacent lower edge section 5 15b on the side of the blank facing outwards so that the straight portion of the lid edge aligns with said left and right adjacent lower edge sections 15a, 15b as the flap 17 is folded inwardly. Subsequently, as the pack 1 is closed the upper edge 5 of the body 2 abuts the left and right adjacent lower edge sections 15a, 15b and the 10 straight lower edge portion. It should be appreciated that the cutting or scoring along the fold-line does not only reduce the thickness of the material but also assists the flap to fold about said fold-line.

Further to the above described embodiment, the fold-line may alternatively be 15 partially cut or scored through its thickness but not across its whole length. For example, a small portion of the fold-line may be left uncut or unscored in order to stabilise the flap during manufacturing. The small portion may include approximately 1mm long uncut sections at either end of the fold line, or alternatively, a single uncut section may be located at the centre of the fold line. It should be understood that as the sections are minimal compared to the length of 20 the fold-lines described in the prior art, the level of potential misalignment and creation of a step relative to adjacent lower lid edges as described in the introduction is reduced.

It should be appreciated that the scope of the present invention is not limited to the 25 shape of the closure line 8 illustrated in Figures 1 and 2. On the contrary, a pack formed with any irregular closure line having a straight portion from which a flap extends can benefit from the present invention and so falls within the scope of the present application.

30 It is envisaged that the pack according to the present invention may receive an inner frame 30 as illustrated in Figure 3. The inner frame 30 shown in Figure 3 is to be folded along the dashed fold-lines so as to create rounded corners. The inner frame 30 is formed with a cut out 31 so as to enable a user to easily retrieve a smoking

article. It is also illustrated in Figure 3 that the inner frame 30 is provided with tabs 32 which engage with an inner surface of the side walls of the lid so as to prevent accidental opening or yawning of the pack.

5 Although embodiments of the invention have been shown and described, it will be appreciated by those persons skilled in the art that the foregoing description should be regarded as a description of preferred embodiments only and that other embodiments that fall within the scope of the appended claims are considered to form part of this disclosure.

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. A pack for smoking articles comprising a lid and a body formed from a material having a thickness, the lid having a front wall with a lower front wall edge and a flap attached to a portion of said lower front wall edge by a fold-line, wherein the fold-line is linear, and at least a part of said fold-line being formed by partially cutting through the thickness of the material so that, when the flap is folded about said fold-line so as to lie against an inner surface of the lid front wall, said portion of the lower front wall edge to which the flap is attached is aligned with the remainder of the lower front wall edge, wherein the body comprises an upper edge having a similar profile to the lower front wall edge of the lid so that when the pack is in a closed position the upper edge of the body and the lower front wall edge abut across the width of the lid front wall and said portion of the lower front wall edge to which the flap is attached is located between curved lower front wall edge sections.
2. The pack for smoking articles according to claim 1, wherein the cut extends continuously along said portion of said lower front wall edge.
3. The pack for smoking articles according to claim 1, wherein the cut partly extends along said portion of said lower front wall edge.
4. The pack for smoking articles according to claim 1, 2 or 3, wherein the remainder of the lower front wall edge is curved.
5. The pack for smoking articles according to any one of claims 1 to 4, wherein the upper edge of the body and the lower front wall edge form a closure line having a curved and a linear section.
6. The pack for smoking articles according to any one of claims 1 to 5, wherein the cut is formed by scoring.

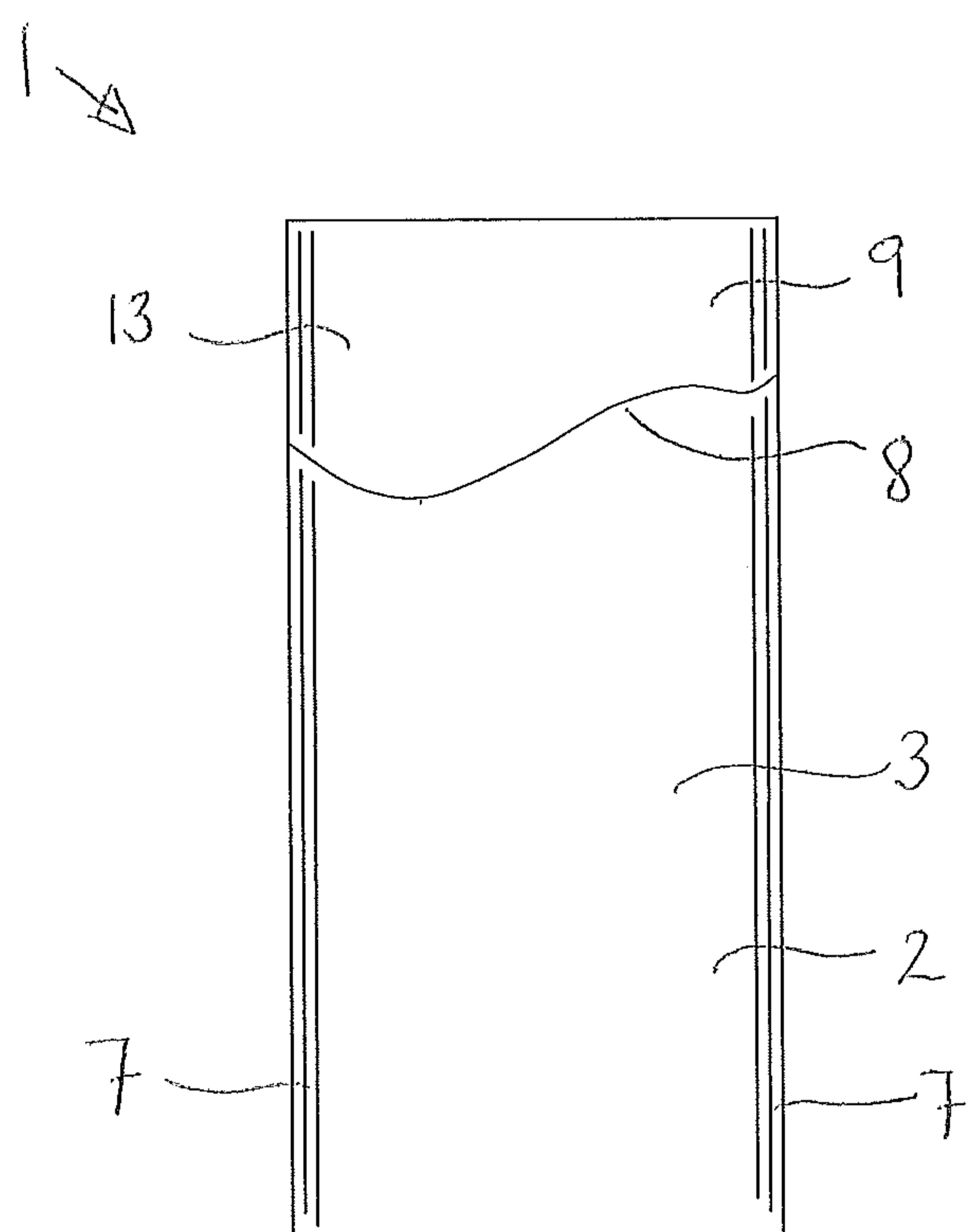


Figure 1

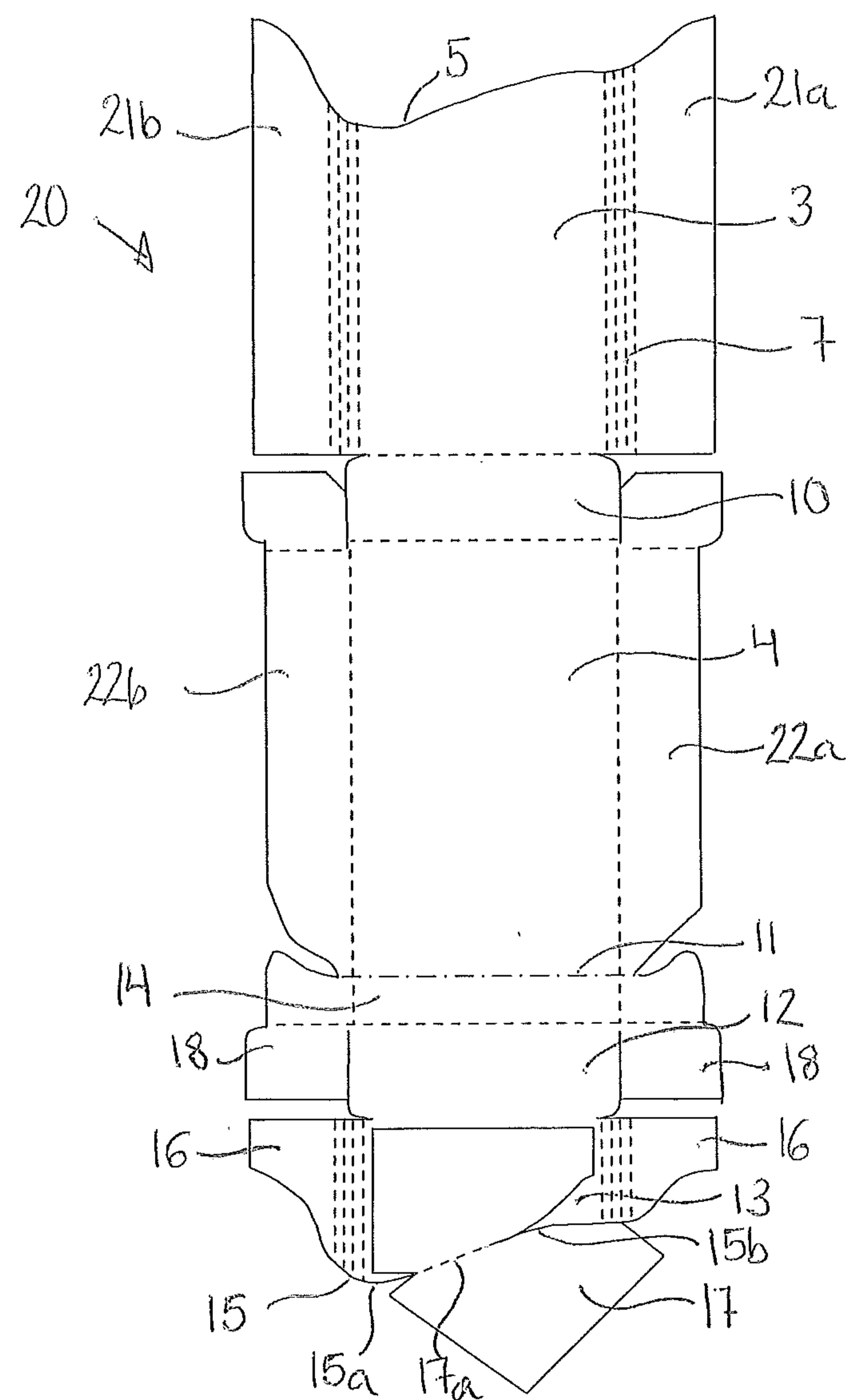


Figure 2

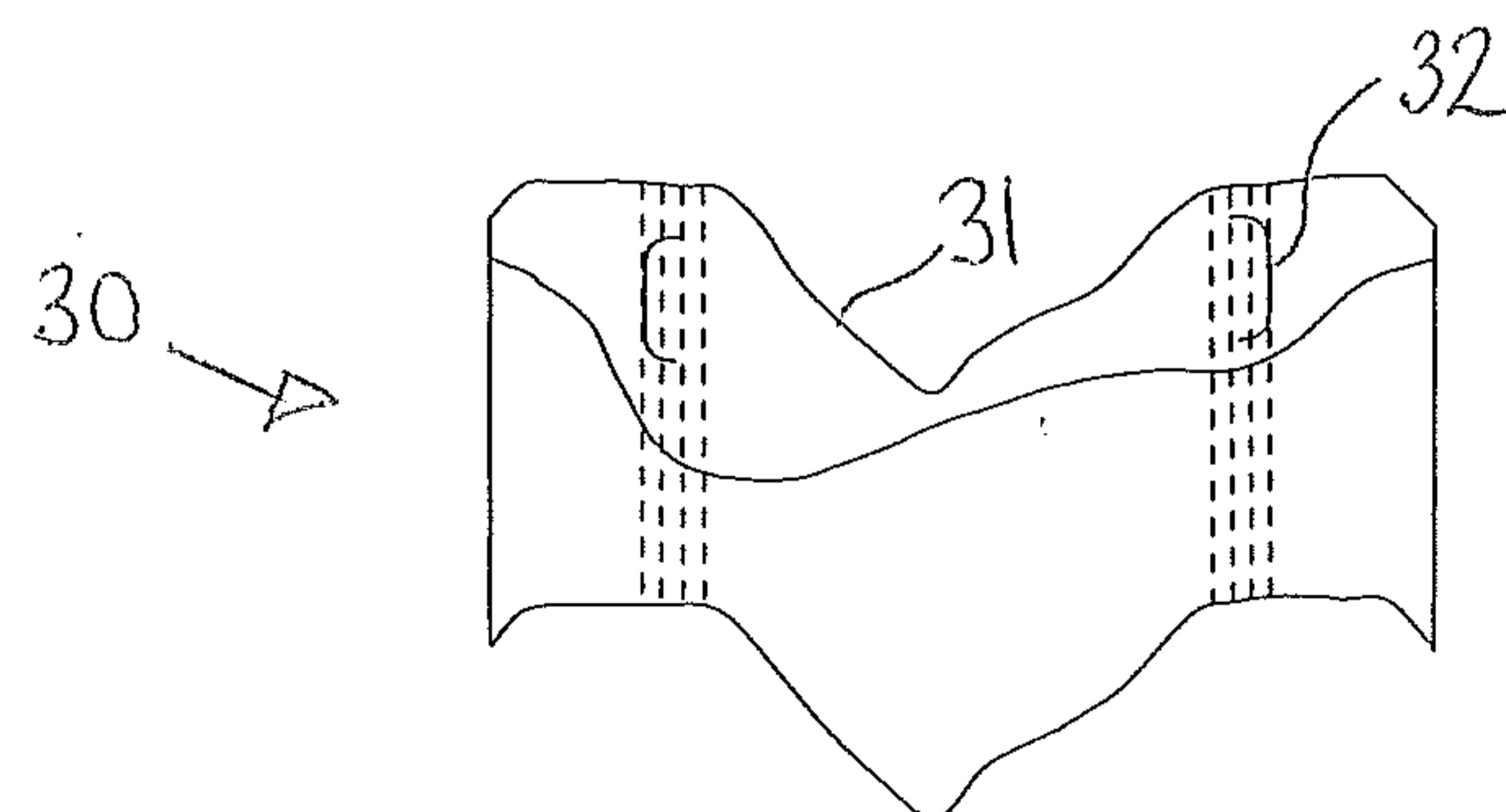


Figure 3

