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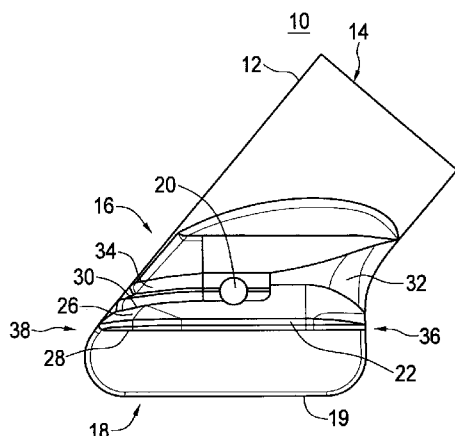
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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) **Title**: APPLICATOR TIP FOR DISPENSING SEAMING ADHESIVE TO SEAM ADJACENT PIECES OF FLOORING-COVERING MATERIAL AND METHOD FOR USING SAME

**FIG. 2**

(57) **Abstract**: An applicator for dispensing seaming adhesive onto the edges of pieces of adjacent floor-covering material is provided. The applicator tip can include, from top to bottom, a leg portion, a relatively narrow ankle portion and a foot portion. The body can connect with a seaming adhesive dispensing device to allow seaming adhesive to flow into a passageway in the body. The ankle portion includes an orifice extending through the applicator tip from side-to-side and intersects with the passageway so that seaming adhesive can flow through the orifice. The foot portion includes a pair of opposing wedges extending sideways from the body. The applicator tip can be drawn along a line of abutment between adjacent pieces of floor-covering material. The ankle portion can further include a glue channel that directs the edges of the floor-covering material towards the orifice so that seaming adhesive can be dispensed along the edges and along the bottom surfaces of the edges.



— *as to the applicant's entitlement to claim the priority of
the earlier application (Rule 4.17(iii))*

Published:

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

**TITLE: APPLICATOR TIP FOR DISPENSING SEAMING ADHESIVE TO
SEAM ADJACENT PIECES OF FLOOR-COVERING MATERIAL
AND METHOD FOR USING SAME**

INVENTORS:

5 Maurice L. Despins and David L. Despins

CROSS REFERENCE TO RELATED APPLICATIONS:

 This application claims priority of U.S. provisional patent application serial no. 61/311,998 filed March 9, 2010 and hereby incorporates the same provisional application by reference herein in its entirety.

10 **TECHNICAL FIELD:**

 The present disclosure is related to the field of applicator tips for use in seaming linearly abutting, side-by-side, planar layers of floor-covering with seaming adhesive, to form a finished seam extending along the line of abutment.

BACKGROUND:

15 For purposes of this specification, "floor-covering" is intended to encompass both carpet and resilient flooring material. "Open seam" is intended to describe the gap formed between the vertical side edges of abutting layers of floor-covering, which gap appears when the marginal floor-covering portions adjacent the side edges are simultaneously raised by the tip passing thereunder. "Closed seam" is
20 intended to describe the linear break between the abutting planar layers of floor-covering when they are lying flat on the sub-floor or underlay, with the side edges not yet bonded by adhesive. "Finished seam" is intended to describe the seam after applied adhesive has bonded the side edges. And "seaming adhesive" is intended

to comprise liquid adhesives, thermoplastic adhesives (such as hot-melt glue) and any other form of adhesive used in the seaming of floor-covering materials as well known to those skilled in the art.

As a beginning point, it is useful to shortly describe the various forms of what is known in the industry as "resilient flooring" and to provide some background on the seaming techniques used in the past with that material. Resilient flooring is generic to: linoleum; rigid-backed vinyl (such as the material sold under the well known trade-mark CORLON); cushion backed vinyl; and homogeneous vinyl (which is a solid layer of vinyl).

Linoleum was commonly seamed by laying the vertical side edges of adjacent layers in close abutment, folding back the adjacent marginal portions of the floor-covering layers to expose the sub-floor, applying a band of water-resistant adhesive to the sub-floor along the line of abutment using a spatula-like tool called a 'spreader', then bringing the marginal portions back down onto the sub-floor, and hand-rolling the seam to complete the operation.

The rigid-backed vinyl was seamed in the same fashion as the linoleum, except that an excess of the sub-floor adhesive was applied to the sub-floor along the line of abutment, with the hope that it would squeeze up between the abutting side edges when they were pressed down, to seal and bond them together.

In the case of the cushion-backed vinyl, the marginal portions were first laid flat on the adhesive-coated sub-floor, in the same manner as linoleum. An applicator was then used to apply low viscosity, solvent-base, liquid seaming adhesive into the closed seam. The applicator comprised a plastic squeeze bottle

having a hollow, knife blade-like tip. The cushion-backed vinyl could be laterally compressed slightly, to allow penetration of the tip for application of the liquid adhesive.

In the case of the homogeneous vinyl, a narrow groove would be cut along
5 the seam, a bead of vinyl would be laid into the groove and a hot iron would be used to melt the bead and adjacent material to thereby weld the side edges together.

From the foregoing, it will be understood that seaming involved bonding the undersurface of the floor-covering to the sub-floor with pre-applied thick adhesive and bonding the vertical side surfaces together, either by application of low viscosity,
10 liquid adhesive or by heat welding the vinyl edges.

In the mid-eighties one of the present applicants developed a novel applicator tip for use with homogeneous vinyl. The tip was disclosed in U.S. Pat. No. 4,484,976, issued Nov. 27, 1985, which is incorporated by reference herein. Also incorporated by reference herein are the within applicant's U.S. Patent No.
15 5,250,145 issued on October 5, 1993; U.S. Patent No. 6,997,227 issued on February 14, 2006; and U.S. Patent No. 7,381,289 issued on June 3, 2008.

Referring to Figure 1, a "prior art" applicator tip is shown. This prior art applicator tip was designed to wet the vertical side edges of the floor-covering with a solvent-base liquid seaming adhesive. The tip is adapted to raise the flat marginal
20 portions of the floor-covering as it passes along the seam, thereby exposing the vertical side edges while wetting them with seaming adhesive. More particularly, the installer inserts the tip between the floor-covering side edges and beneath the adjacent marginal portions. He then pulls the tip along the seam. The tip is

connected at its upper end to a plastic squeeze bottle containing a supply of seaming adhesive. The tip forms a longitudinal passageway having an outlet positioned to deliver the seaming adhesive to the faces of the floor-covering side edges. The installer manually squeezes the bottle as he draws the assembly along
5 the line of abutment, to discharge the seaming adhesive.

Structurally, the prior tip comprises an upstanding, body having, from top to bottom, a leg portion, a relatively narrow ankle portion, and a pair of opposing wedges extending from the ankle portion. The leg portion comprises coupling means at its upper end for connecting it with the seaming adhesive supply squeeze
10 bottle, a longitudinal open-ended passageway extending downwardly through the leg, and an orifice extending through the ankle portion having communication with the longitudinal passageway to allow seaming adhesive to flow out the orifice on each side of the ankle onto the edges of the floor-covering being seamed together.

The prior tip has worked well when used with homogeneous vinyl using
15 solvent-based liquid seaming adhesive but, when applied to carpeting and other resilient flooring, certain problems have become evident. More particularly: the ankle portion has had to be kept quite narrow (typically 1/16"). If this is not done, the seam will open too much as the tip is moved along it. An excessive amount of seaming adhesive can then readily move down the conduit and into the open seam
20 (this excessive flow is referred to as "flooding"). In the case of carpet, when the upraised marginal portions of the floor-covering drop back down to the sub-floor after the tip has passed, the excess seaming adhesive can get squeezed upwardly and will wick into the pile. The installer can then attempt to clean off the surface

adhesive, but this is time-consuming, expensive and rarely complete. The presence of seaming adhesive on top of the seam will result in flattening of the pile fibers with traffic, thereby creating an undesired, hard, lumpy ridge running along the seam. In the case of resilient flooring, excess seaming adhesive will accumulate on top of the finished seam and is wasted and must be removed; flooding is also partly a result of having to use low viscosity, solvent-based, liquid seaming adhesive. These seaming adhesives will readily flow down the passageway and through the outlet or orifice into the open seam. It has not been possible to substitute a high viscosity, water-based liquid seaming adhesive for use with the prior tip, as it will not flow at a sufficient rate through the narrow ankle passageway and orifice (which typically has a diameter of about 40/1000"). It would be desirable to use a high viscosity, water-based seaming adhesive, because it is less toxic than the solvent-based seaming adhesive. However, this has been deterred because a passageway of greater cross-section would require a thicker ankle portion, which would result in opening the seam wider, thereby inducing an unacceptable degree of flooding.

In addition, it is desirable, with resilient flooring and carpet, to apply some of the sealant to the undersurface of the marginal portions of the floor-covering, to enhance the strength and durability of the seam. Attempts to accomplish this end with the prior tip, by delivering more sealant, simply result in more excess seaming adhesive reaching the top surface of the seam. Since the sub-floor is normally coated with a tacky adhesive, when the prior tip is pressed down against the sub-floor and pulled along the seam the sub-floor adhesive will drag on the tip and will also ball up beneath it. This commonly causes the installer using the tip to lift it out

of contact with the sub-floor during use. Several problems can then result. The floor-covering side edges can be spread too far apart, with the consequence that severe flooding will follow. Furthermore, the installer will have to manually press down the wetted edges as he proceeds. This means that the installer has to hold
5 the bottle and tip with one hand, using that hand to squeeze the bottle, while he uses the other hand to press down the wetted side edges. All of this is tiring over time and requires a significant level of skill on the part of the installer. In addition, when the prior tip is lifted, it has a tendency to skew, with the result that the application of sealant to the two side edges is somewhat uneven and erratic.

10 It is, therefore, desirable to provide an applicator tip that overcomes these problems and that can be used with floor-coverings such as carpet and resilient flooring and which is adapted to be used with high viscosity, water-based liquid seaming adhesives.

SUMMARY:

15 A seaming adhesive applicator tip for dispensing seaming adhesive onto the edges of pieces of adjacent floor-covering material is provided. In one embodiment, the applicator tip can comprise, from top to bottom, a leg portion, a relatively narrow ankle portion and a foot portion. The body can connect with a seaming adhesive dispensing device to allow seaming adhesive to flow into a passageway in the body.
20 The ankle portion can comprise an orifice extending through the applicator tip from side-to-side that intersects with the passageway so that seaming adhesive can flow through the orifice. The foot portion can comprise a pair of opposing wedges extending sideways from the body. The applicator tip can be drawn along a line of

abutment between adjacent pieces of floor-covering material. The ankle portion can further comprise a glue channel that directs the edges of the floor-covering material towards the orifice so that seaming adhesive can be dispensed along the edges and along the bottom surfaces of the edges.

5 Broadly stated, a seaming adhesive applicator tip is provided for seaming abutting side-by-side pieces of floor-covering planar material with adhesive along a line of abutment, the applicator tip comprising: an upright body comprising, from top to bottom, a leg portion, a relatively narrow ankle portion, and a foot portion, the body having a leading edge and a trailing edge which are aligned with the line of
10 abutment; the leg portion forming a passageway extending longitudinally therethrough, the leg portion comprising connection means at its upper end for connection with a seaming adhesive dispenser, whereby seaming adhesive may flow from the dispenser into the leg passageway; the foot portion having a pairing of opposing wedges extending sideways from the body for uplifting and tilting the
15 edges of the pieces of floor-covering material upwards and bringing the edges close to the ankle portion side surfaces as the applicator tip is advanced along the line of abutment, each of the wedges further comprising a downward sloping top surface and a flat bottom surface, the wedges further comprising a recessed area disposed on a portion of the top surface nearer the trailing edge, the foot portion further
20 comprising a keel extending downwards therefrom; and the ankle portion comprising having an ankle orifice extending through the ankle portion transverse to the line of abutment and intersecting with the passageway, the bottom edge of the ankle orifice further intersecting with the recessed area, whereby seaming adhesive flowing into

the passageway is directed through the ankle orifice towards the edges of the pieces of floor-covering being seamed together and the bottom surfaces thereof.

Broadly stated, in some embodiments, a method is provided for seaming adjacent pieces of floor-covering planar material, the method comprising the steps

5 of: fitting the adjacent pieces of floor-covering planar material together wherein edges of the adjacent pieces are abutted to one another; providing a seaming adhesive applicator tip for seaming the abutting side-by-side pieces of floor-covering planar material with adhesive along a line of abutment, the applicator tip comprising:

10 an upright body comprising, from top to bottom, a leg portion, a relatively narrow ankle portion, and a foot portion, the body having a leading edge and a trailing edge which are aligned with the line of abutment, the leg portion forming a passageway extending longitudinally therethrough, the leg portion comprising connection means at its upper end for connection with a seaming adhesive dispenser, whereby seaming adhesive may flow from the dispenser into the leg passageway, the foot

15 portion having a pairing of opposing wedges extending sideways from the body for uplifting and tilting the edges of the pieces of floor-covering material upwards and bringing the edges close to the ankle portion side surfaces as the applicator tip is advanced along the line of abutment, each of the wedges further comprising a downward sloping top surface and a flat bottom surface, the wedges further

20 comprising a recessed area disposed on a portion of the top surface nearer the trailing edge, the foot portion further comprising a keel extending downwards therefrom, and the ankle portion comprising having an ankle orifice extending through the ankle portion transverse to the line of abutment and intersecting with the

passageway, the bottom edge of the ankle orifice further intersecting with the recessed area, whereby seaming adhesive flowing into the passageway is directed through the ankle orifice towards the edges of the pieces of floor-covering being seamed together and the bottom surfaces thereof; placing the applicator tip between
5 the abutting side-by-side pieces of floor-covering planar material and dispensing adhesive along the edge of at least one piece of floor-covering material; and pressing the edges of the abutting side-by-side pieces of floor-covering planar material until the adhesive has at least partially set so as to form a finished seam along the line of abutment.

10 **BRIEF DESCRIPTION OF THE DRAWINGS:**

Figure 1 is a side elevation view depicting a prior art applicator tip.

Figure 2 is a side elevation view depicting one embodiment of a seaming adhesive applicator tip.

Figure 3 is a perspective view depicting the applicator tip of Figure 2.

15 Figure 4 is a side elevation view depicting an alternate embodiment of a seaming adhesive applicator tip.

DETAILED DESCRIPTION OF EMBODIMENTS

Referring to Figures 2 and 3, one embodiment of seaming adhesive applicator tip 10 is illustrated. In this embodiment, applicator tip 10 can comprise,
20 from top to bottom, leg portion 12, ankle portion 16 and foot portion 18.

Leg portion 12 can comprise opening 14, which can further comprise coupling means for attaching to, and detaching from, a squeeze bottle containing seaming adhesive (not shown) or to a thermoplastic adhesive dispensing device, such as a

hot melt glue gun (not shown). In some embodiments, opening 14 can be in communication with passageway 15 that can extend through leg portion 12 to ankle portion 16 inside applicator tip 10. In other embodiments, passageway 15 can comprise a diameter that can be tapped for 3/8" – 16 threads to accommodate being
5 threaded onto a hot melt glue gun (not shown) or a cold glue squeeze bottle (not shown).

Ankle portion 16 can comprise leading edge 36 and trailing edge 38. Ankle orifice 20 can extend through ankle portion 16 and intersect with passageway 15 inside applicator tip 10. Ankle portion 16 can be disposed above foot portion 18,
10 which can comprise a pair of opposing wedges 22 extending sideways from applicator tip 10, and keel 19 extending downwards therefrom. Each wedge 22 can comprise a sloping top surface 26 and flat bottom surface 28. Recessed area 30 can be disposed into top surface 26 of each wedge 22. Ankle orifice 20 can be disposed on ankle portion 16 such that a bottom portion of orifice 20 can intersect
15 with, or otherwise cut into, the top surface of recessed area 30. In a representative embodiment, ankle orifice 20 can have a diameter of approximately 5/64".

In another embodiment, ankle portion 16 can further comprise glue channel opening 32 on leading edge 36. In some embodiments, glue channel opening 32 can narrow as it gradually becomes glue channel 34 that extends towards trailing
20 edge 38.

Referring to Figure 4, an alternate embodiment of applicator tip 10 is illustrated, which can be used be in seaming two adjacent pieces of floor-covering together using a seaming tape, as well known to those skilled in the art, to reinforce

the seam. In this embodiment, applicator tip 10 can further comprise one or both of orifices 40 and 42. Orifices 40 and 42 can be disposed on keel 19 and be in communication with passageway 15. In some embodiments, orifice 40 can have a smaller diameter, relative to orifice 42, so to allow adhesive to be extended outward approximately 1" to 1-1/4" out from applicator tip 10 onto the seaming tape when adhesive is applied using a squeeze bottle or a hot melt glue gun. In representative embodiments, the diameter of orifice 40 can range from 5/64" to 3/32".

In some embodiments, orifice 42 can have a larger diameter, relative to orifice 40, so to allow adhesive to be extended outward approximately 5/8" out from applicator tip 10 onto the seaming tape when adhesive is applied using a squeeze bottle or a hot melt glue gun. In representative embodiments, the diameter of orifice 42 can range from 5/64" to 3/32". In some embodiments, the diameters of orifices 40 and 42 can be in the lower end of the range when applicator tip 10 is used with hot melt glue. In other embodiments, the diameters of orifices 40 and 42 can be in the higher end of the range when applicator tip 10 is used with cold glue.

In operation, an installer can draw applicator tip between two adjacent pieces of floor-covering that are to be seamed together. Glue channel opening 32 can draw the edges of the adjacent pieces of floor-covering into glue channel 34 while sliding on top of top surface 26 of wedges 22. In so doing, seaming adhesive can be dispensed from orifice 20 as the installer squeezes the seaming adhesive bottle or operates the thermoplastic adhesive dispensing device. As orifice 20 is disposed intersecting with recessed area 30, seaming adhesive can be applied to the edges of the adjacent pieces of floor-covering with little or no seaming adhesive being

dispensed on the top surface of the floor-covering material. Furthermore, as the top surface of recessed area 30 is disposed below top surface 26, seaming adhesive being dispensed from orifice 20 can be applied to the bottom surface of the edges of the adjacent pieces of floor-covering being seamed together, which can then adhere
5 to a seaming tape disposed beneath the adjacent pieces of floor-covering (not shown) to strengthen the finished seam. When the embodiment of applicator tip 10 as shown in Figure 4 is used, adhesive can be dispensed from one or both of orifices 40 and 42 disposed thereon to place adhesive further out from applicator tip 10 onto the seaming tape.

10 Although a few embodiments have been shown and described, it will be appreciated by those skilled in the art that various changes and modifications might be made without departing from the scope of the invention. The terms and expressions used in the preceding specification have been used herein as terms of description and not of limitation, and there is no intention in the use of such terms
15 and expressions of excluding equivalents of the features shown and described or portions thereof, it being recognized that the scope of the invention is defined and limited only by the claims that follow.

WE CLAIM:

1. A seaming adhesive applicator tip for seaming abutting side-by-side pieces of floor-covering planar material with adhesive along a line of abutment, the applicator tip comprising:
 - a) an upright body comprising, from top to bottom, a leg portion, a relatively narrow ankle portion, and a foot portion, the body having a leading edge and a trailing edge which are aligned with the line of abutment;
 - b) the leg portion forming a passageway extending longitudinally therethrough, the leg portion comprising connection means at its upper end for connection with a seaming adhesive dispenser, whereby seaming adhesive may flow from the dispenser into the leg passageway;
 - c) the foot portion having a pairing of opposing wedges extending sideways from the body for uplifting and tilting the edges of the pieces of floor-covering material upwards and bringing the edges close to the ankle portion side surfaces as the applicator tip is advanced along the line of abutment, each of the wedges further comprising a downward sloping top surface and a flat bottom surface, the wedges further comprising a recessed area disposed on a portion of the top surface nearer the trailing edge, the foot portion further comprising a keel extending downwards therefrom; and
 - d) the ankle portion comprising having an ankle orifice extending through the ankle portion transverse to the line of abutment and intersecting with the passageway, the bottom edge of the ankle orifice further intersecting with the recessed area, whereby seaming adhesive flowing into the passageway is

directed through the ankle orifice towards the edges of the pieces of floor-covering being seamed together and the bottom surfaces thereof.

2. The applicator tip as set forth in claim 1, wherein the ankle portion further comprises a glue channel disposed thereon for guiding the pieces of floor-covering material along the ankle orifice.
3. The applicator tip as set forth in claim 2, wherein the glue channel further comprises a glue channel opening disposed on the leading edge of the body.
4. The applicator tip as set forth in claim 3, wherein the glue channel opening is wider than the glue channel and gradually narrows to the width of the glue channel to guide pieces of floor-covering material into the glue channel.
5. A method for seaming adjacent pieces of floor-covering planar material, the method comprising the steps of:
 - a) fitting the adjacent pieces of floor-covering planar material together wherein edges of the adjacent pieces are abutted to one another;
 - b) providing a seaming adhesive applicator tip for seaming the abutting side-by-side pieces of floor-covering planar material with adhesive along a line of abutment, the applicator tip comprising:
 - i) an upright body comprising, from top to bottom, a leg portion, a relatively narrow ankle portion, and a foot portion, the body having a leading edge and a trailing edge which are aligned with the line of abutment,
 - ii) the leg portion forming a passageway extending longitudinally therethrough, the leg portion comprising connection means at its upper

end for connection with a seaming adhesive dispenser, whereby seaming adhesive may flow from the dispenser into the leg passageway,

- iii) the foot portion having a pairing of opposing wedges extending sideways from the body for uplifting and tilting the edges of the pieces of floor-covering material upwards and bringing the edges close to the ankle portion side surfaces as the applicator tip is advanced along the line of abutment, each of the wedges further comprising a downward sloping top surface and a flat bottom surface, the wedges further comprising a recessed area disposed on a portion of the top surface nearer the trailing edge, the foot portion further comprising a keel extending downwards therefrom, and
- iv) the ankle portion comprising having an ankle orifice extending through the ankle portion transverse to the line of abutment and intersecting with the passageway, the bottom edge of the ankle orifice further intersecting with the recessed area, whereby seaming adhesive flowing into the passageway is directed through the ankle orifice towards the edges of the pieces of floor-covering being seamed together and the bottom surfaces thereof;
- c) placing the applicator tip between the abutting side-by-side pieces of floor-covering planar material and dispensing adhesive along the edge of at least one piece of floor-covering material; and

- d) pressing the edges of the abutting side-by-side pieces of floor-covering planar material until the adhesive has at least partially set so as to form a finished seam along the line of abutment.
6. The method as set forth in claim 5, wherein wherein the ankle portion further comprises a glue channel disposed thereon for guiding the pieces of floor-covering material along the ankle orifice.
 7. The method as set forth in claim 6, wherein the glue channel further comprises a glue channel opening disposed on the leading edge of the body.
 8. The method as set forth in claim 7, wherein the glue channel opening is wider than the glue channel and gradually narrows to the width of the glue channel to guide pieces of floor-covering material into the glue channel.
 9. The method as set forth in any one of claims 5 to 8, wherein adhesive is dispensed on the abutting edges of both side-by-side pieces of floor-covering planar material.
 10. The method as set forth in any one of claims 5 to 9, wherein the seam is formed linearly along the line of abutment by advancing the applicator tip from one end of the line of abutment towards its opposite end.
 11. The method as set forth in claim 10, wherein the seam is formed by successively seaming portions of the abutting side-by-side pieces of the floor-covering planar material one portion at a time.

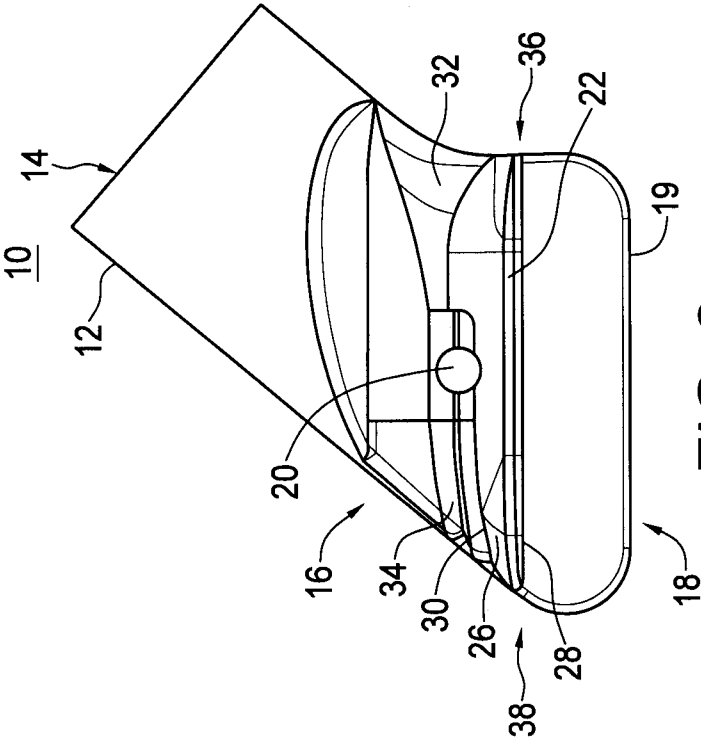


FIG. 2

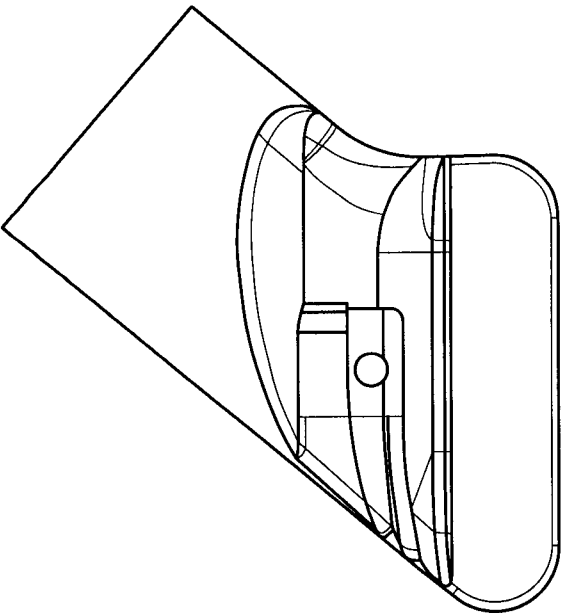


FIG. 1
(PRIOR ART)

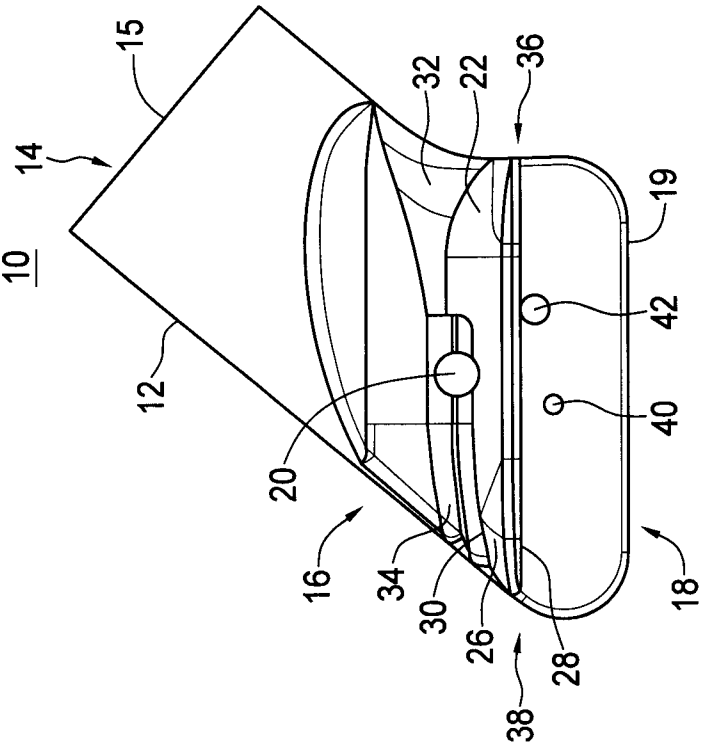


FIG. 4

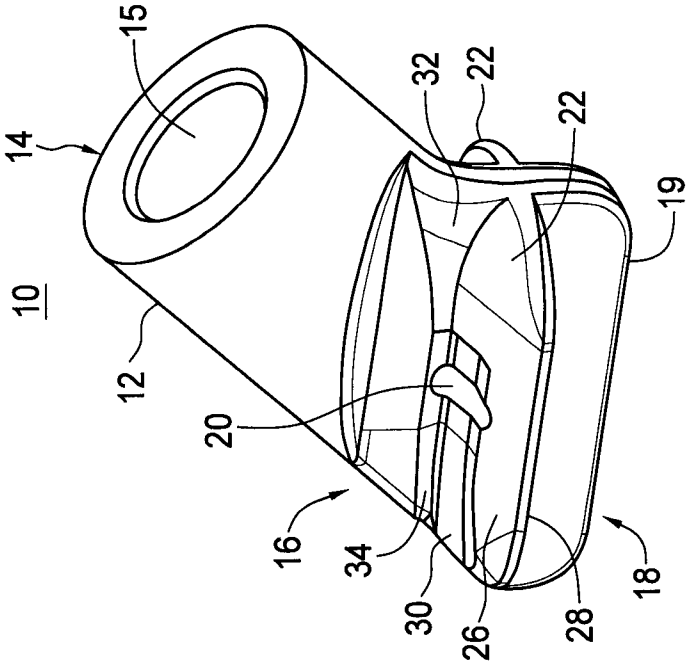


FIG. 3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2011/000247

A. CLASSIFICATION OF SUBJECT MATTER IPC: B29C 65/54 (2006.01) , A47G 27/04 (2006.01) , B05C 17/00 (2006.01) , B05C 21/00 (2006.01) , D06H 5/00 (2006.01) , E04F 21/165 (2006.01), E04F 21/20 (2006.01) According to International Patent Classification (IPC) or to both national classification and IPC														
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) B29C 65/54 (2006.01) , A47G 27/04 (2006.01) , B05C 17/00 (2006.01) , B05C 21/00 (2006.01) , D06H 5/00 (2006.01) , E04F 21/165 (2006.01), E04F 21/20 (2006.01) Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched														
Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) Databases: Canadian Patent Database, Total Patent, EPODOC (EPOQUE) Terms: seam , body, adhesive, edge, angle, tip, applicator														
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>US 6997227 B2 (DESPINS, M. ET AL.) 14 February 2006 (14-02-2006) ~ Whole Document ~</td> <td>1 - 11</td> </tr> <tr> <td>A</td> <td>US 7381289 B2 (DESPINS, M. ET AL.) 03 June 2008 (03-06-2008) ~ Whole Document ~</td> <td>1 - 11</td> </tr> <tr> <td>A</td> <td>US 5 250145 A (DESPINS, M. ET AL.) 05 October 1993 (05-10-1993) ~ Whole Document ~</td> <td>1 - 11</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	A	US 6997227 B2 (DESPINS, M. ET AL.) 14 February 2006 (14-02-2006) ~ Whole Document ~	1 - 11	A	US 7381289 B2 (DESPINS, M. ET AL.) 03 June 2008 (03-06-2008) ~ Whole Document ~	1 - 11	A	US 5 250145 A (DESPINS, M. ET AL.) 05 October 1993 (05-10-1993) ~ Whole Document ~	1 - 11
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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CA2011/000247

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US6997227B2	14-02-2006	CA2416763A1	17-07-2004
		CA2416763C	13-11-2007
		US2004140050A1	22-07-2004
		US6997227B2	14-02-2006
		US2006065362A1	30-03-2006
		US7381289B2	03-06-2008
US7381289B2	03-06-2008	CA2416763A1	17-07-2004
		CA2416763C	13-11-2007
		US2004140050A1	22-07-2004
		US6997227B2	14-02-2006
		US2006065362A1	30-03-2006
		US7381289B2	03-06-2008
US5250145A	05-10-1993	AU2584592A	05-04-1993
		CA2051183A1	12-03-1993
		CA2051183C	13-09-1994
		US5250145A	05-10-1993
		WO9305254A1	18-03-1993