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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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

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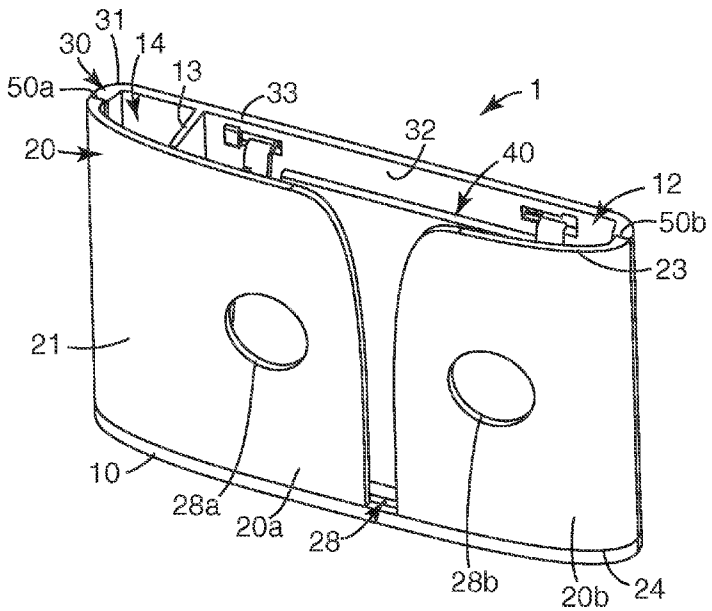
[Continued on next page]

(54) Title: OPEN TOP DISPENSER



(57) Abstract: A dispenser has a primary cavity having first and second sides and an open end and a closed end, the open end allowing for the insertion and the removal of a pad of notes. The dispenser also includes a base defining the closed end of the dispenser; front and rear portions, each portion having first and second ends and opposing inside and outside surfaces, the front and rear portions disposed on the base such that the second end of each portion is proximate to the base, the front portion comprises a slot extending from the first end to the second end; and a biasing mechanism disposed proximate the rear portion.

WO 2008/011290 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

OPEN TOP DISPENSER

Field of Invention

The present invention relates to an open top dispenser. In particular, the present invention relates to a dispenser that allows for easy loading and reloading of pads of repositionable notes of different sizes. The dispenser is particularly suited for dispensing repositionable notes in a z-stacked configuration.

Background

Repositionable paper notes are used widely today. Some notes are assembled in a z-stacked (also referred to as "fan fold") construction. In such a construction, the note, typically square, but can also be rectangular, or special die cut shaped, has opposing front and back surfaces. On the back surface, along an edge or region of the note is a stripe of repositionable adhesive. The front of the note may contain a release coating. The notes are stacked so that the adhesive stripe of each note is positioned on alternating ends of the pad of notes. Commercially available pads of repositionable notes are available from 3M Company under the Post-it® brand.

There are a wide variety of dispensers for pads of repositionable notes. Examples of commercially available dispensers include those from 3M Company, St. Paul, Minnesota, such as the Designer Series Pop-Up Notes Dispenser, DS440-VP or DS330-VA for 4 by 4 inch or 3 by 3 inch notes respectively, the Professional Design Pop-Up Notes Dispenser, PRO440-VP or PRO330 for 4 by 4 inch or 3 by 3 inch notes respectively. 3M also offers a Professional Design Pop-Up Dispenser PRO331-RB for 3 by 3 inch note with a pen holder where the dispenser is mountable on a vertical surface. These dispensers offer attractive designs and are functional.

There is a continuing need for different dispensers for the market place.

Summary

In one aspect, the invention pertains to a dispenser having a primary cavity having first and second sides and an open end and a closed end, the open end allowing for the insertion and the removal of a pad of notes. The dispenser further comprises a base defining the closed end of the dispenser; front and rear portions, each portion having first and second ends and opposing inside and outside surfaces, the front and rear portions disposed on the

base such that the second end of each portion is proximate to the base, the front portion comprises a slot extending from the first end to the second end; and a biasing mechanism disposed proximate the rear portion.

An advantage of the present invention is that it provides the user with the versatility of using differently sized pads of repositionable notes. In one exemplary application, the dispenser is mounted on a vertical surface and has a cavity for holding writing instruments providing the user with added convenience.

Most commercially available dispensers require two motions or steps to load a pad of repositionable notes, such as, e.g., one motion to open a cover and a second motion to load the pad. Alternatively, one motion is used to depress a plunger in the dispenser and another motion is used to slide in the pad. One advantage of present invention is that it allows the loading of the pad in one motion, simply by sliding the pad into the opening of the dispenser. The sliding action simultaneously depresses a plate on the biasing mechanism and loads the pad, as further explained in detail below.

In this document, the term "about" is presumed to modify all numerical values.

Brief Description of the Drawings

The invention can be better described with reference to the following drawings, wherein:

Figure **1** is a perspective view of one exemplary embodiment of the present invention;

Figure **2** is a top plan view of the embodiment of Figure **1**;

Figure **3** is a front plan view of the embodiment of Figure **1**;

Figure **4** is a bottom plan view of the embodiment of Figure **1**;

Figure **5** is a partial fragmented view of an exemplary biasing mechanism for use with an embodiment of the present invention;

Figure **6a** is a side cross sectional view of the embodiment of Figure **2** taken along line **6a—6a**;

Figure **6b** is a side cross sectional view of the embodiment of Figure **6a** loaded with a pad of notes;

Figure **7** is a perspective view of the embodiment of Figure **1** loaded with a pad of notes and utensils; and

Figure **8** is a partial fragmented view of another exemplary biasing mechanism for use with an embodiment of the present invention; and

Figure **9** is a top plan view of another exemplary embodiment of the invention.

These figures are idealized, are not drawn to scale, and are intended merely for illustrative purposes.

Detailed Description

Figure **1** shows a perspective view of an exemplary dispenser **1** having base **10**, front portion **20** and rear portion **30** together forming primary cavity **12** having first side **50a** and second side **50b**. The front portion has first edge **23** defining the open end of the dispenser, second edge **24** and opposing inside surface (not shown) and outside surface **21**. Similarly, the rear portion has first edge **33** defining the open end of the dispenser, second edge **34**, and opposing inside surface **32** and outside surface **31**. The front portion includes first front portion **20a** and second front portion **20b** divided by slot **28**. Optionally, the first and second front portion includes aperture **28a** and **28b** respectively. The slot extends from first edge **23** to second edge **24**. The front and rear portions are disposed on the base such that the second edge of each portion **24**, **34** respectively lie proximate to the base thereby defining the closed end of the dispenser. Proximate to the first side of the dispenser lies internal wall **13** extending from rear portion. The presence of the internal wall forms secondary cavity **14**.

In this particular embodiment, the front and rear portions are separate components joined together at side seams **50a** and **50b**. In another exemplary embodiment, the front and rear portions are formed as an integral unit. In yet another exemplary embodiment, the front and rear portions and the base are formed as an integral unit. Optionally, the front and or back portion can be made with translucent materials and can further include indicia and or graphics. Figure **1** also shows exemplary biasing mechanism **40** that can be used in the present invention. As further described below, the biasing mechanism biases a pad of notes (not shown) against the inner surface of front portion **20**.

Figure **2**, **5**, **6a** and **6b** show various views of the dispenser of Figure **1** and particularly to biasing mechanism **40**. The dispenser has a length dimension **L** and a depth dimension **D**. As can be seen in Figure **6a**, when the dispenser is not loaded with a pad of repositionable notes, biasing mechanism extends from inside surface **32** of rear portion **30**

to inside surface **22** of front portion **20** to bias a pad of repositionable notes against the inside surface of the front portion. Figure **5** better shows the biasing mechanism, which includes arms **42** having means for attaching the mechanism to the rear portion. One exemplary means for attaching the mechanism include pins **44** adapted for engagement with opening **35** in the rear portion. Extending from the arm is plate **46** having opposing mounting surface **46a** and support surface **46b**. Optionally, ribs **49** extend from the edge of plate **46**. In one embodiment, the ribs are spaced to accommodate a specific size pad of repositionable notes, such as a pad of 3 inch by 3 inch notes. The ribs help control the shuttling of the pad during dispensing. In another embodiment to control the shuttling of the pad, in place of or in addition to ribs **49**, the dispenser may further include a pair of guides disposed in the interior surface of the front portion spaced to accommodate a specific size pad of repositionable notes. Spring **48**, disposed on inside surface **32** of the rear portion, supports and biases the plate towards the front portion. When pad **70** of repositionable notes is inserted into the dispenser, the plate moves from its first position of less compression (shown in Figure **6a**) to its second position of more compression (shown in Figure **6b**).

Disposed on outside surface **31** of the rear portion is means for attaching the dispenser to a surface, such as work surfaces, walls, refrigerator doors, and the like. This particular embodiment shows that one exemplary means for attaching the dispenser is a composite **60** having releasable adhesive strip **62** and hooking devices **64** that would mate with complementary hooking devices pre-attached to the surface. Exemplary releasable adhesive strip products are available from 3M Company under the Command™ brand of product lines.

Figure **8** shows an exploded view of another exemplary biasing mechanism that can be used for the dispenser of the present invention. The biasing mechanism includes plate **146** having mounting surface **146a** and opposing support surface (not shown). A pair of pins **144** extend from opposing side edges **146c** and **146d** near top edge **146b** of the plate. The pins are adapted for engagement with a pair of hooks **135** extending from the interior surface of the rear portion in the primary cavity. The pins and hooks together create a hinge. Torsion spring **148**, having a central coil mounted on extension **149**, has two arms, the first arm contacting inside surface **132** of rear portion **130** and a second arm

contacting the support surface of the plate. The extension upon which the torsion spring is lies mounted between the hooks.

Figure **3** shows a front plan view of the dispenser of Figure **1** having a height dimension **H**. Aperture **28a** in first front panel **20a** and aperture **28b** in second front panel **20b** provides decorative features to the dispenser, especially where a multicolored pad of notes is used. For example, a pad of notes may contain alternating blue color and green color notes, so that as a blue note is being dispensed a green note can be seen. In this way, the dispenser provides a decorative design element to its environment. Slot **28**, rounded at first edge **23**, has a spacing dimension S_1 at the first edge. Away from first edge **23**, the walls of the slot become substantially straight and have a spacing dimension S_2 approaching second end **24** of the front portion. As shown, S_1 is greater than S_2. The wider width of the slot near the first edge of the dispenser aids loading the pad of notes as the first note can be funneled into the slot at the wider radius opening. In yet another embodiment, the slot has a dimension where the spacing S_1 is smaller than the spacing S_2 so that there slot has a necked down region near top edge **23** of the front portion.

Figure **4** shows a bottom plan view of the dispenser of Figure **1** showing an exposed surface of the base **10** having an oblong shape with rounded sides. Other shapes can be used, such as, but not limited to, rectangles.

Figure **7** shows a perspective view of the embodiment of Figure **1** loaded with pad of repositionable notes **70** where first note **71** extends through the slot. Writing utensils **80** have been inserted into the secondary cavity. The pad of repositionable note has two opposing edges that contain stripes of repositionable adhesive on a backside of each note. The pad is loaded into the dispenser such that the stripes of repositionable adhesive is substantially parallel to the slot.

Figure **9** shows a top plan view of another embodiment of the invention. For ease of understanding, the dispenser is shown without a biasing mechanism and without a means for attaching the dispenser to a surface. First internal wall **113** lies proximate to first side **150a** to form secondary cavity **114**. The internal wall extends from the inside surface of the rear portion towards the front portion. In another embodiment, the internal wall extends from the inside surface of the rear portion to the inside surface of the front portion. In one application, the secondary cavity can be used to hold writing instruments, such as pens, markers, and the like. Optionally, second internal wall **115** can be added

proximate second side **150b**. Optionally, a pair of guides **125** extend from internal surface **122** of front portion **120**. In one embodiment, the distance between the first and second internal walls accommodates a specific pad size, such as, e.g., a pad of 4 inch by 4 inch repositionable notes. In one embodiment, the front portions are translucent. In such a case, it may be desirable not to have internal walls **113** and **115** that extend from the rear portion to be in contact with front portions.

The dispenser can be made of a variety of materials including, plastics, metals, and woods. Suitable plastic materials include, but not limited to, ABS (acrylonitrile-butadiene-styrene polymer) and polystyrene.

In one embodiment, the dispenser has a length L of 5½ inch, a height H of 3.63 inch, and a depth D of 1 inch. The dispenser has a first internal wall disposed 1 inch from its first side (depicted schematically as L_2 in Fig. **9**) such that the primary cavity is 4½ inches. The dispenser has a second internal wall disposed ¼ inch from its second side (depicted schematically as L_3 in Fig. **9**). The distance between the first and second internal walls is 4.125 inch. The dispenser also has a pair of guides, extending from the interior surface of the front portion, spaced 3.125 inches apart. In this way, this particular dispenser is capable of holding two sizes of pads of repositionable notes, a 4 inch by 4 inch pad and a 3 inch by 3 inch pad.

Although specific embodiments of the present invention have been shown and described, it is understood that these embodiments are merely illustrative of the many possible specific arrangements that can be devised in application of the principles of the invention. Numerous and varied other arrangements can be devised in accordance with these principles by those of ordinary skill in the art without departing from the spirit and scope of the invention. Thus, the scope of the present invention should not be limited to the structures described in this application, but only by the structures described by the language of the claims and the equivalents of those structures.

What is claimed is:

1. A dispenser having a primary cavity having first and second sides and an open end and a closed end, the open end allowing for the insertion and the removal of a pad of notes, the dispenser further comprising:

a base defining the closed end of the dispenser;

front and rear portions, each portion having first and second ends and opposing inside and outside surfaces, the front and rear portions disposed on the base such that the second end of each portion is proximate to the base, the front portion comprises a slot extending from the first end to the second end; and

a biasing mechanism disposed proximate the rear portion.

2. The dispenser of claims 1 wherein the biasing mechanism lies between the inside surfaces of the front and rear portions.

3. The dispenser of claim 1, further comprising first an internal wall proximate to the first side of the primary cavity forming a secondary cavity and a second internal wall proximate to the second side of the primary cavity extending from the inside surface of the rear portion.

4. The dispenser of claim 1, wherein the front and rear portions are joined at side seams proximate to first and second sides of the primary cavity.

5. The dispenser of claim 1, wherein the front and rear portions are formed integrally.

6. The dispenser of claim 1, wherein the front portion, rear portion, and base are formed integrally.

7. The dispenser of claim 1, wherein the slot in the front portion is wider near the first end than near the second end.

8. The dispenser of claim 1 made from materials selected from the group consisting of wood, plastic, and metal.

9. The dispenser of claim 8, wherein the plastic is selected from the group consisting of ABS and polystyrene.

10. The dispenser of claim 1, wherein the biasing mechanism comprises:

an arm having means for attaching the mechanism;

a plate extending from the arm, the plate having opposing side edges and opposing mounting and supporting surfaces;

a spring disposed on the inside surface of the rear portion, the spring in contact with the supporting surface of the plate and biasing the plate towards the inside surface of the front portion.

11. The dispenser of claim 1, wherein the plate further comprises a pair ribs extending from the side edges.

12. The dispenser of claim 1, wherein the biasing mechanism comprises a plate having opposing side edges, a top edge, and opposing mounting surface and support surfaces;

a hinge extending from the interior surface of the rear portion;

a pin extending from the side edges of the plate proximate to its top edge, the pin in communication with the hinge;

a torsion spring mounted on an extension disposed proximate to the hinge, the torsion spring having two arms, the first arm contacting the interior surface of the rear portion, the second arm contacting the support surface of the plate.

13. The dispenser of claim 1, wherein the rear portion comprises means for attaching the dispenser to a surface.

14. The dispenser of claim 13, wherein the means for attaching the dispenser to a substrate is releasable adhesive strips.

15. The dispenser of claim 3, wherein the first portion further comprises a pair of guides extending of its internal surface, the distance between the guides being smaller than the distance between first and second internal walls.

16. The dispenser of claim 15, wherein the primary cavity holds 4 inch by 4 inch or 3 inch by 3 inch pad of repositionable notes.

17. The dispenser of claim 1, further comprising a pad of repositionable notes, the notes stacked in a z-stacked configuration.

18. The dispenser of claim 1 having a length of about 5.5 inch, height of about 3.63 inch, and a depth of about 1 inch.

19. The dispenser of claim 18 wherein the primary cavity has a length of about 4.25 inch and the secondary cavity has a length of about 1 inch.

20. The dispenser of claim 1, wherein the at least one of the front portion and back portion is translucent.

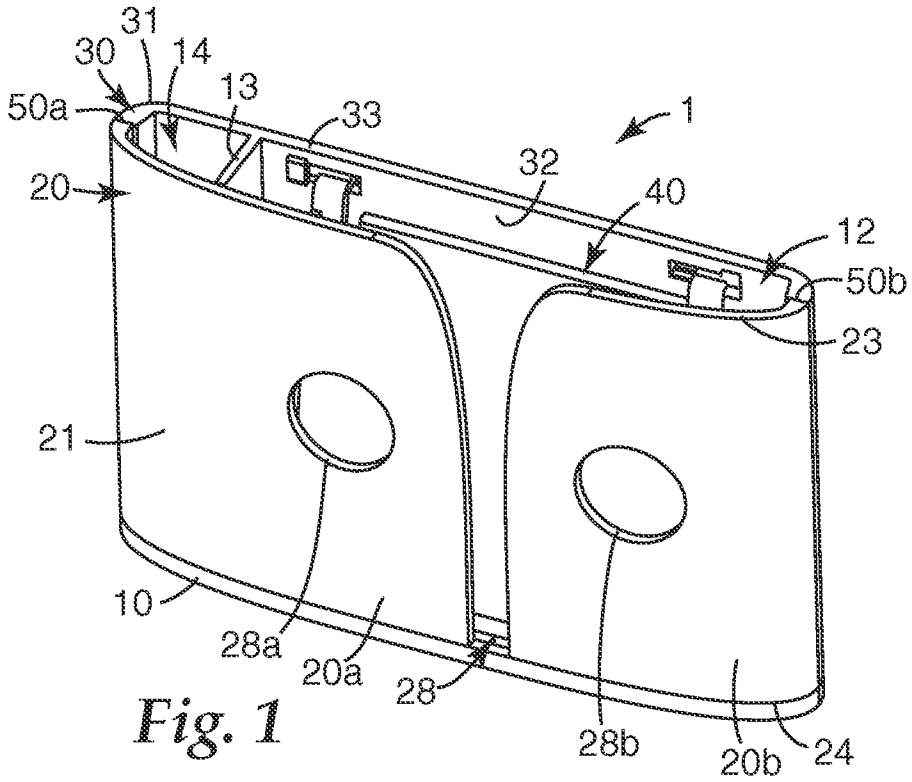


Fig. 1

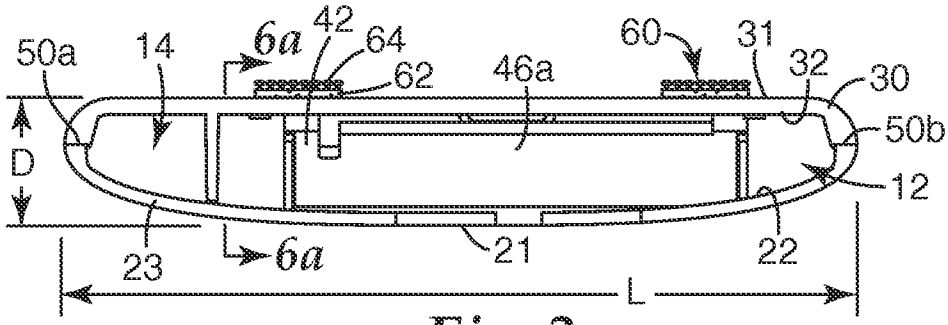


Fig. 2

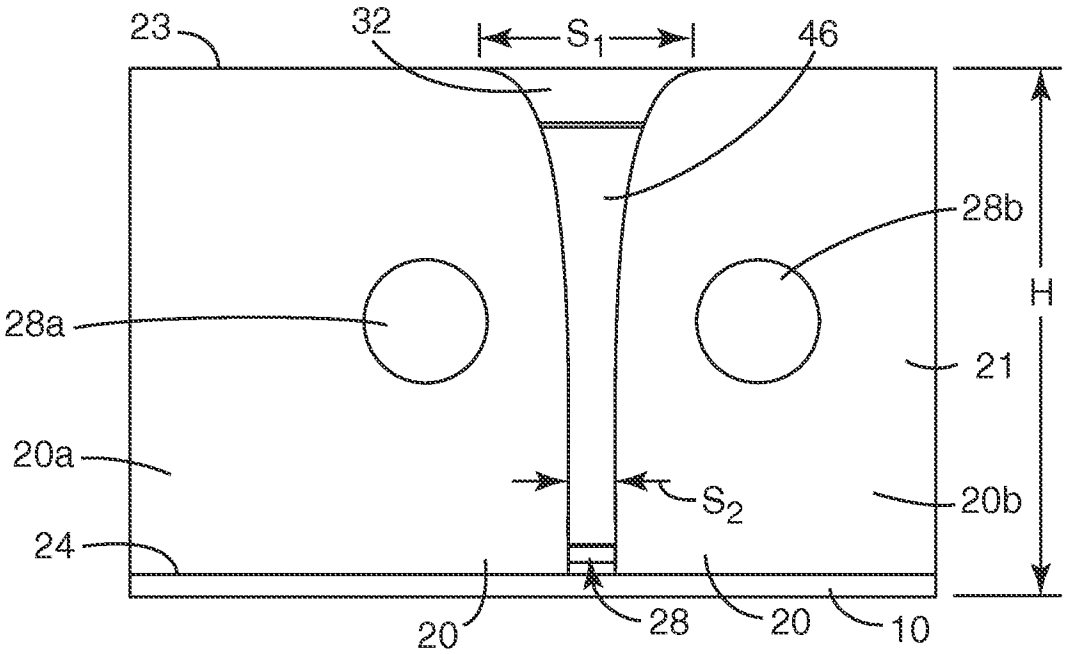


Fig. 3

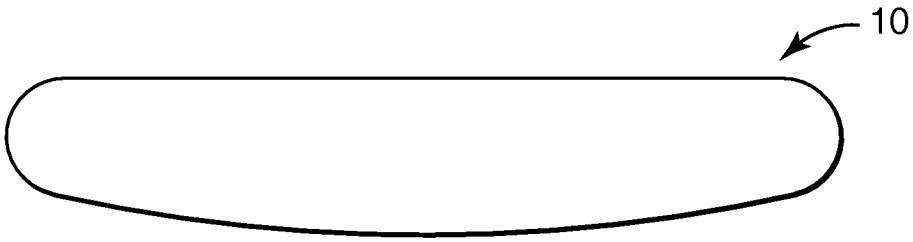


Fig. 4

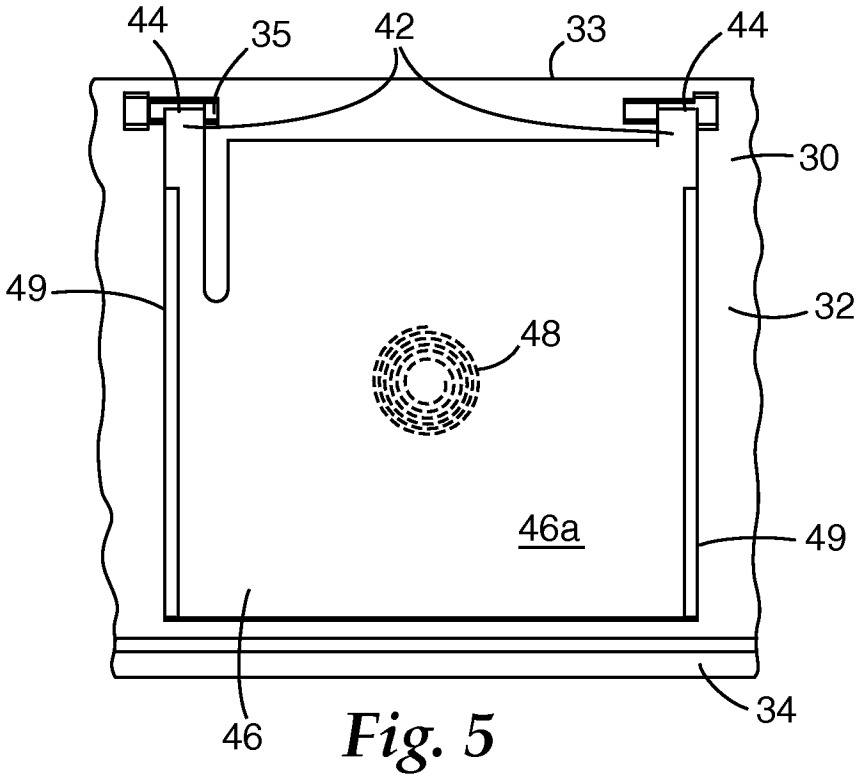


Fig. 5

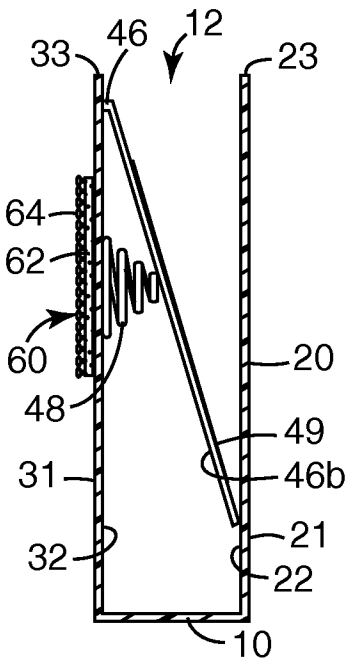


Fig. 6a

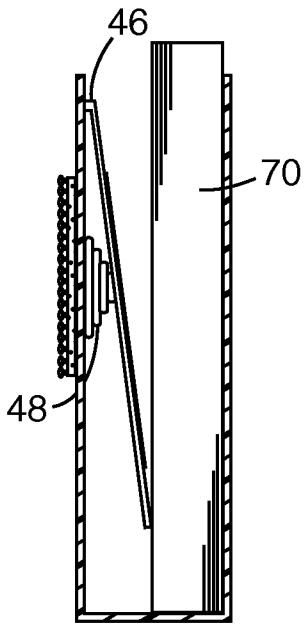


Fig. 6b

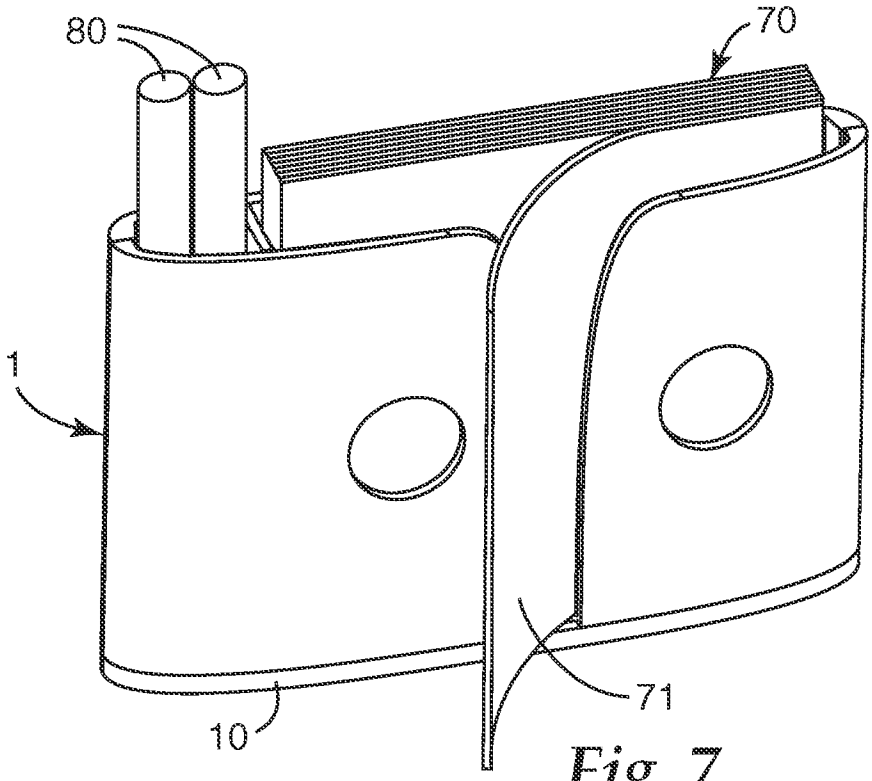


Fig. 7

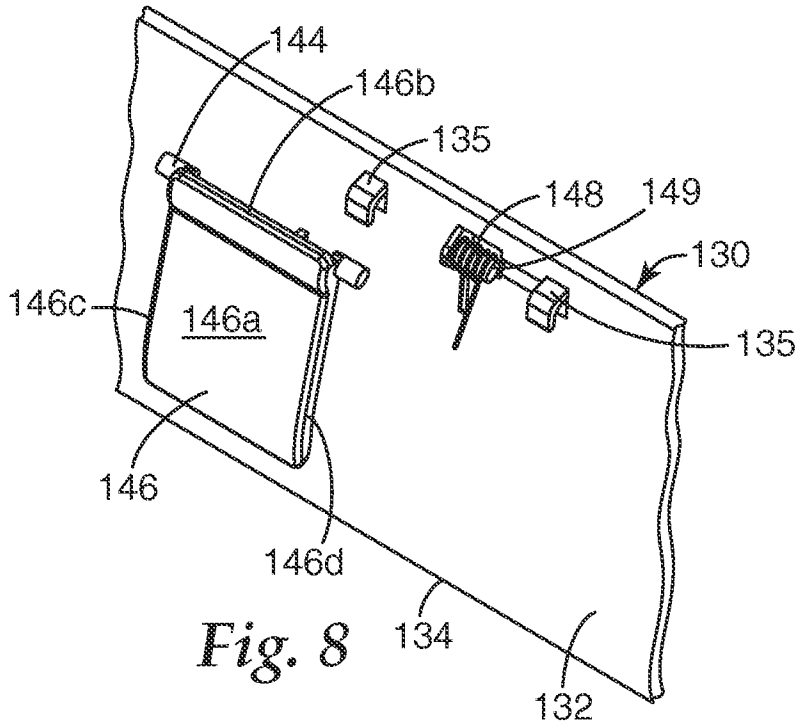


Fig. 8

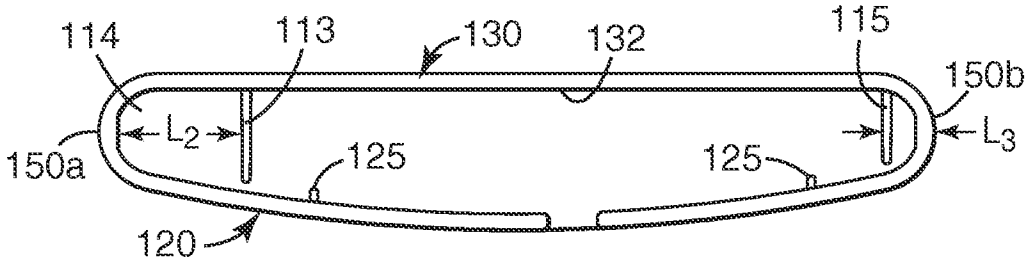


Fig. 9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/073044

A. CLASSIFICATION OF SUBJECT MATTER

B42F 7/00(2006.01)i, B42F 7/14(2006.01)i

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)

IPC 8: B42F 7/00, 7/14, B65H 1/00, 1/04, B65G 59/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS (KIPO internal) & keywords: "dispenser", "reposition*", and "post-it"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5080254 A (FEER, D. L.) 14 January 1992 See column 3, line 18 - column 6, line 36 and figures 1-6.	1-20
A	US 6514585 B1 (PEARSON, S. D. et al.) 4 February 2003 See column 11, line 62 - column 15, line 15 and figures 4A-5B.	1-20
A	US 6648173 B2 (CRAWFORD, D. L.) 18 November 2003 See column 7, line 4 - column 9, line 26 and figures 1-4.	1-20
A	US 5765721 A (VANCE, R. L.) 16 June 1998 See column 3, line 14 - column 5, line 33 and figures 1-7.	1-20

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
08 NOVEMBER 2007 (08.11.2007)	**09 NOVEMBER 2007 (09.11.2007)**

Name and mailing address of the ISA/KR
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Facsimile No. 82-42-472-7140

Authorized officer
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Telephone No. 82-42-481-8417

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/US2007/073044

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5080254 A	14.01.1992	AU 6233690 A1	15.08.1991
		BE 1004065 AD	15.09.1992
		BR 9005003 A	19.11.1991
		CA 2023266 A	10.08.1991
		CH 683421 A	15.03.1994
		DE 4038234 A1	14.08.1991
		DK 19491 AO	05.02.1991
		ES 2026383 AF	16.04.1992
		FR 2658175 A1	16.08.1991
		GB 2240767 A1	14.08.1991
		GB 2240767 B2	05.01.1994
		IE 903396 A1	14.08.1991
		IT 1244702 A	08.08.1994
		JP 03240598 A	25.10.1991
		LU 87833 A	07.05.1991
		NL 9002293 A	02.09.1991
		NO 910508 AO	08.02.1991
		PT 96689 A	30.11.1992
		SE 9002868 A	10.08.1991
US 6514585 B1	04.02.2003	AU 200011985 A1	05.06.2000
		AU 754981 B2	28.11.2002
		CA 2348033 AA	25.05.2000
		CA 2348033 C	17.04.2007
		DE 69905747 CO	10.04.2003
		DE 69905747 T2	17.07.2003
		EP 01128966 A2	05.09.2001
		EP 01128966 B1	05.03.2003
		JP 2002-529590 A	10.09.2002
		KR 10-2001-0080439 A	22.08.2001
		US 2003129346 A1	10.07.2003
		WO 0029224 A2	25.05.2000
US 6648173 B2	18.11.2003	AU 2003207664 A1	13.10.2003
		EP 01487645 A1	22.12.2004
		JP 2005-520752 A	14.07.2005
		KR 10-2004-0088590 A	16.10.2004
		US 2003178437 A1	25.09.2003
		WO 03082597 A1	09.10.2003
US 5765721 A	16.06.1998	NONE	