(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 980 172 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
15.10.2008 Bulletin 2008/42

(51) Int Cl.:
A45C 11/18 *(2006.01)* ***A45C 11/24*** *(2006.01)*

(21) Application number: **08251099.1**

(22) Date of filing: **27.03.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA MK RS

(30) Priority: **10.04.2007 US 733727**

(71) Applicant: **UK GAL, LLC**
Kirkland WA 98033 (US)

(72) Inventor: **Swan, Phillip D.**
Redmond, WA 98052 (US)

(74) Representative: **Smith, Samuel Leonard**
J.A. Kemp & Co.
14 South Square
Gray's Inn
London WC1R 5JJ (GB)

(54) Holder for articles and accessories

(57) A holder (100) for articles includes a plurality of panels (102,104,106), each panel having a pocket adapted for containing an article, the panels serially joined to one another along one edge by a flexible hinge (108) such that the panels and hinges comprise a flexible homogeneous structure. The homogeneous structure can be arranged in an open condition in which the panels are laid out flat and can be arranged in a closed condition in which the panels are folded up so that two of the panels comprise outer panels. The closing loop (112) is attached to one of the panels, such that the loop can be stretched around the folded up panels in the closed condition to stretch around the panels, thereby holding the panels in the closed condition.

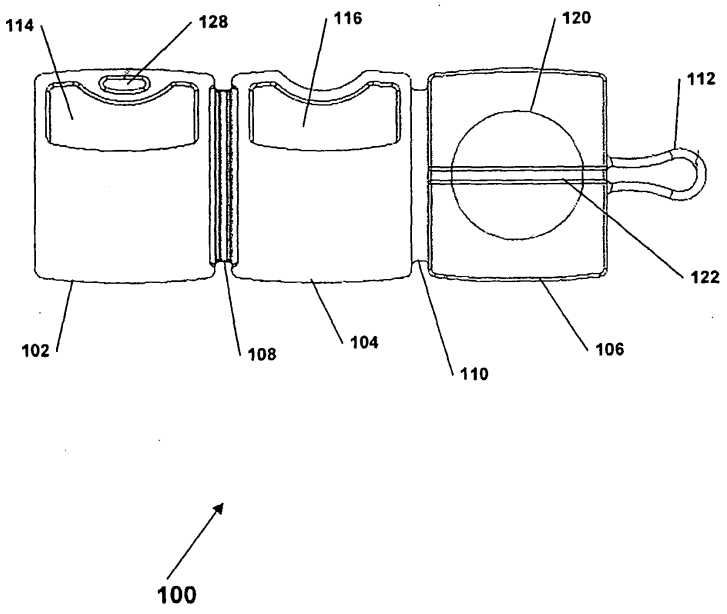

FIG. 1

EP 1 980 172 A1

Description

BACKGROUND OF THE INVENTION

[0001] Many devices in common use include small electronic cards or cartridges that are accepted by the devices for more performance. For example, game consoles may accept game cartridges or memory cards that improve console performance. Some cellular telephones include SIM cards that enable operation in different regions or with different carriers. Many cellular telephones, digital cameras, and other portable devices accept flash card memories that store data such as photographs, music, and the like. Such articles or accessories can increase the ease of use and performance of their associated devices and are easily carried about.

[0002] It is all too easy to misplace such small articles. Typically a person with a device that uses such cards and cartridges will have more than one such article and will want to easily transport them. For example, game cartridges may be carried to various locations for play with one's friends. Flash memory cards may be carried about while on a trip for holding electronic photographs. A convenient means of holding such articles in safety is desired, for preventing loss of the articles and for ensuring ready access.

[0003] Some accessory holders have a hard outer shell and internal compartments. Such holders can be somewhat bulky, inconvenient to use, and relatively expensive to manufacture. Some soft-sided holders comprise leather wallets and the like, which require more complicated construction and therefore are of greater cost to the consumer.

[0004] From the discussion above, it should be apparent that there is a need for an accessory holder that is relatively inexpensive to manufacture, convenient to use, and capable of holding multiple accessories. Embodiments of the present invention satisfy this need.

SUMMARY

[0005] In accordance with the present invention, a holder for articles includes a plurality of panels, each panel having a pocket adapted for containing an article, the panels serially joined to one another along one edge by a flexible hinge such that the panels and hinges comprise a flexible homogeneous structure. The homogeneous structure can be arranged in an open condition in which the panels are laid out flat and can be arranged in a closed condition in which the panels are folded up so that two of the panels comprise outer panels. The closing loop is attached to one of the panels, such that the loop can be stretched around the folded up panels in the closed condition to stretch around the panels, thereby holding the panels in the closed condition. In this way, the pockets can easily receive articles such as the accessory cards and cartridges while in the open condition, and the panels can be folded up and held closed by the loop.

[0006] In one aspect, the two outer panels have a groove in their outer surface, so that the loop snaps into the groove when the structure is in the closed condition. In another aspect, the structure is constructed of a flexible material, such as silicone, that is easily and quickly manufactured using a mold process. The silicone does not pose a health risk or adverse reaction upon skin contact, and can receive a inks for imprinting and graphics.

[0007] Other features and advantages of the present invention should be apparent from the following description of exemplary embodiments, which illustrate, by way of example, aspects of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Figure 1 is a plan view of an article holder constructed in accordance with the present invention, with three panels shown in the open condition.

[0009] Figure 2 is a top view of the Figure 1 article holder.

[0010] Figure 3 is a plan view of the Figure 1 article holder, showing the back side.

[0011] Figure 4 is a sectional view through the Figure 3 illustration.

[0012] Figure 5 is a perspective view of the Figure 1 article holder in the open condition.

[0013] Figure 6 is a perspective view of the Figure 1 article holder in the closed condition.

[0014] Figure 7 is a plan view of another embodiment constructed in accordance with the present invention, with two panels shown in the open condition.

[0015] Figure 8 is a plan view of the Figure 7 article holder, showing the back side.

DETAILED DESCRIPTION

[0016] The drawings of Figures 1-6 show an article holder 100 constructed in accordance with the present invention according to a first embodiment. The article holder 100 includes three panels 102, 104, 106. The panels are constructed of a silicone material for flexibility and strength. The first 102 and second 104 panels are joined by a flexible hinge 108, and the second 104 and third 106 panels are joined by another flexible hinge 110. A stretchable closing loop 112 extends from the side of one of the panels 106. Figure 1 shows that a pocket 114 is formed in the first panel 102 and another pocket 116 is formed in the second panel 104. The third panel 106 includes a pocket 118, which is visible in the back side view of Figure 4.

[0017] When the article holder 100 is folded up to be in the closed condition, shown in Figure 6, the first panel 102 and the third panel 106 comprise outer panels. That is, the first panel 102 is folded in one direction onto the second panel 104, and the second panel is folded in the opposite direction onto the third panel 106. The closing loop 112 can be stretched around the closed up panels to hold the panels in the closed condition. Figure 6 illus-

trates the article holder 100 in the closed condition.

[0018] Returning to Figure 1, the surface of the third panel 106 that is visible in Figure 1 is substantially flat or planar, but may be formed with a graphic 120 or embossing. In the illustrated embodiment, the outer surface of the third panel includes a groove 122 that receives the closing loop 112. Figure 3 shows that the outer surface of the first panel 102 is substantially flat or planar, and may be formed with a graphic 124 or embossing, and may include a groove 126 that receives the closing loop 112. One of the outer panels may also include a hole or opening 128 near one edge that can receive a lanyard or carrying strap (not illustrated). The panel 104 that is adjacent the panel 102 with the lanyard hole 128 can be provided with an indentation 130 to accommodate a lanyard that is threaded through the hole 128. Thus, a lanyard looped through the hole 128 can pass through the indentation 130.

[0019] The illustrated embodiment shows that the panels 102, 104, 106 are hinged along their lengthwise edges. The drawings show the two outer panels 102, 106 with a lateral groove 122, 126 in their outer surface such that the closing loop 112 can rest in the respective grooves when the article holder is in the closed condition

[0020] The article holder 100 has a homogenous composition that can be produced, for example, from a molding process using a material such as silicone rubber or the like. Thus, the panels 102, 104, 106, hinges 108, 110, closing loop 112, and pockets 114, 116, 118 all have the same composition of material. Those skilled in the art will be aware that silicone rubber is a synthetic elastomer made from a cross-linked polymer that is reinforced with silica. Such material can be produced from raw material available from a number of companies, including General Electric Company of Wilton, Connecticut, USA and Dow Coming of Midland, Michigan, USA. The raw ingredients can be blended into useful forms of silicone rubber or suitable compositions can be purchased from compounding companies such as Kirkhill-TA Company of Brea, California, USA or Y & D Rubber Corporation of Chino, California, USA. Silicone rubber has good flexibility and is easily manufactured from molding processes that will be understood by those skilled in the art based on the disclosure herein.

[0021] The pockets 114, 116, 118 that are formed in the article holder 100 can easily receive and hold articles intended for safekeeping by pulling outwardly on the pocket. Because the article holder 100 is manufactured from a flexible material, it is relatively easy for a user to pull open the pocket to conveniently insert electronic game cartridges, memory cards, and the like within the pocket, and then to release the pocket and let the pocket return to its original shape, holding the article snug in the pocket. In the illustrated embodiment, the pocket flap extends approximately two-thirds of the panel height, with the top third being open for receiving the article. To receive typical game cartridges, the panels have a height on the order of 2.0 inches and the overall length of the three panels in the open condition is approximately 5.175 inches. Those skilled in the art will be able to derive suitable dimensions for other articles, in view of the description herein.

[0022] Generally, the silicone rubber starting material is received in sheet form. The starting material is precatalyzed, meaning that all of the needed ingredients are in the material (including the catalyst). The material is relatively soft and has the consistency of cookie dough. A measured amount of rubber is cut from the sheet, placed in a mold form and then the mold is placed between two heat platens and compressed. The material becomes cured when exposed to a combination of heat (about 325-350 degrees F) and pressure (about 1000-2000 psi) over a period of time (about 2-15 minutes). The temperature, pressure, and time must be carefully controlled to insure a good molded part. Those skilled in the art will be familiar with techniques for providing the suitable combination of parameters to provide a useful molded part with sufficient strength and flexibility for the application described herein. Suitable techniques are described, for example, in U.S. Patent No. 6,840,836.

[0023] In addition to the compression process described above and in the referenced U.S. patent, other manufacturing techniques can be used to provide suitable products. For example, another process that works for silicone rubber is a technique called Liquid Injection Molding (LIM). In this process, two liquid parts are mixed, injected into a mold, and cured with a suitable pressure and temperature. The parts are mixed at a ratio between 1:1 to 10:1, depending on how they were compounded. Those skilled in the art will be familiar with parameters that more precisely determine the suitable ratio for the article holder product.

[0024] For LIM, the liquid parts are generally the consistency of honey and are mixed together just as they are injected into a heated tool. The pressure of injection molding is similar to that of compression molding (1000-2000 psi) and the mold is heated to about 350 degrees F. The mold is held closed for about 30 to 60 seconds, and when opened, a cured part is removed. This process requires more complex machinery and mold design as compared to compression molding. The LIM molding process, however, is more readily automated and parts can be produced faster. As a result, the LIM process can be more efficient and can provide more cost efficient manufacturing than the compression molding technique.

[0025] The dimensions of the article holder, including overall size, wall thickness, pocket dimensions, closing loop thickness, and hinge dimensions, are determined by the mold. In the illustrated embodiment, the thickness of the hinge is about 0.040" and extends along most of the length (height) of the panels, as illustrated in the drawings. It has been found that such thickness works well as a hinge, to articulate the joined panels and permit opening and closing of the article holder, and is also sufficiently strong to withstand the rigors of use that a cus-

tomer (such as a typical 10-year old with multiple game cartridges) would put it through. Other thicknesses may prove suitable depending on intended usage and application.

[0026] The article holder can be provided with graphics such as printing or embossing. In the illustrated embodiment, the article holder 100 is provided with a circular image on the outer surface of the outer panels 102, 106. Printing on silicone requires an ink that is adapted to be compatible with silicone. Generally, the ink is itself a silicone product. A suitable ink can be obtained from GT Products, Inc. of Grapevine, Texas, USA. The ink is a two-part silicone ink that is mixed just prior to application and is available in a variety of colors. The ink is best applied via a silk screen process or pad printing to produce a suitable image or graphic. The printed article holder is then sent through a cure cycle where it is exposed to heat (about 350 degrees F) for about 2 minutes. Because the ink is silicone, the applied image becomes an integral part of the article holder and therefore will stretch and bend along with the article holder itself. It also cannot be worn, scraped or otherwise removed once it has been cured. Thus, the applied image is extremely durable and virtually resistant to cracking and peeling. Suitable printing techniques are described in the above-referenced U.S. Patent No. 6,840,836.

[0027] The closing loop 112 can be provided in different dimensions, depending on the size of the panels, the number of panels, and the intended application, so as to have suitable flexibility to stretch around the panels in the closed condition, and yet be sufficiently strong to resist breaking even if excessive force is applied. In the illustrated embodiment, the diameter of the closing loop is about 0.080" with a loop length of about 2.0". Those skilled in the art will understand that a trade-off exists between increasing the diameter of the closing loop (such as to 0.100" or 0.125"), making the loop stronger and resistant to breaking, but also making it more difficult to stretch the loop around the closed article holder unless the closing loop is made longer. Those skilled in the art will be able to determine suitable combinations of length and diameter for the closing loop, depending on the size of the panels, the number of panels, the intended application, and also as a matter of personal preference as to which combinations give the best combination of appearance, ease of use, and ability to withstand breaking.

[0028] Figure 6 shows the closing loop 112 constructed with an optional tab 132, which can be included on the end of the closing loop to provide a means for conveniently grasping the loop to close around the article holder 100 when the holder is in the closed condition.

[0029] Figure 7 and Figure 8 show a two-panel article holder 200 that is constructed in accordance with the invention. In such a configuration, both panels 202, 204 are outer panels, and are changed from the open (flat) condition to the closed condition by folding over on themselves. The closing loop 206 is then stretched around the closed panels, just as described above for the three-panel embodiment. The two panels 202, 204 are joined by an integral hinge 208. The outer surface of the panels 202, 204 includes a groove 210, 212, respectively, for receiving the closing loop 206. One of the panels 202 includes an optional hole 214 through which a lanyard or carrying strap can be looped or threaded. The adjacent panel 204 includes an indentation 216 to accommodate the lanyard when the article holder 200 is in the closed condition. The reverse side illustrated in Figure 8 shows that each panel 202, 204 includes a pocket 220, 222 respectively that receives the intended article, such as a game cartridge or memory card, for carrying.

[0030] The materials described above for the three-panel article holder, and the corresponding manufacturing and printing techniques, may be used in conjunction with the two-panel embodiment. It should be appreciated that other numbers of panels may be provided without departing from the teachings of the invention. The construction techniques, materials, and processes described above for the three-panel embodiment apply equally to the two-panel embodiment and embodiments having other numbers of panels, as will occur to those skilled in the art.

[0031] The above description is illustrative and is not restrictive. Many variations of embodiments constructed in accordance with the invention will become apparent to those skilled in the art upon review of the disclosure. The scope of the invention should, therefore, be determined not with reference to the above description, but instead should be determined with reference to the pending claims along with their full scope or equivalents.

[0032] While certain exemplary embodiments have been described in detail and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative of and not intended to be restrictive of the broad invention, and that this invention is not to be limited to the specific arrangements and constructions shown and described, since various other modifications may occur to those with ordinary skill in the art.

Claims

1. A holder for articles, the article holder comprising:

a plurality of panels, each panel having a pocket adapted for containing an article, the panels serially joined to one another along one edge by a flexible hinge such that the panels and hinges comprise a flexible homogeneous structure that can be arranged in an open condition in which the panels are laid out flat and can be arranged in a closed condition in which the panels are folded up so that two of the panels comprise outer panels;

a closing loop attached to one of the panels;

wherein the loop can be stretched around the folded

up panels in the closed condition, thereby holding the panels in the closed condition.

2. An article holder as in claim 1, the two outer panels having a groove in their outer surface such that the closing loop can rest in the respective grooves when the flexible homogeneous structure is in the closed condition.

3. An article holder according to either claim 1 or claim 2, comprising three panels.

4. An article holder according to any one of claims 1 to 3, wherein the panels are hinged along their lengthwise edge.

5. An article holder as in claim 4, wherein the two outer panels have a lateral groove in their outer surface such that the closing loop can rest in the respective grooves when the flexible homogeneous structure is in the closed condition.

6. An article holder according to any one of the preceding claims, wherein the article holder is formed with a colorized material.

7. An article holder according to any one of the preceding claims, further including a lanyard attachment hole in one panel.

8. An article holder according to any one of the preceding claims, wherein the flexible homogeneous structure comprising the panels and closing loop are constructed of a silicone rubber material.

9. An article as in claim 8, wherein at least one of the panels is imprinted with silicon ink.

10. An article according to any one of the preceding claims, wherein the pockets are adapted to receive and hold electronic memory cards.

11. An article according to any one of the preceding claims, wherein the pockets are adapted to receive and hold game cartridges.

12. An article according to any one of the preceding claims, wherein the closing loop includes a tab formed for grasping the end of the closing loop.

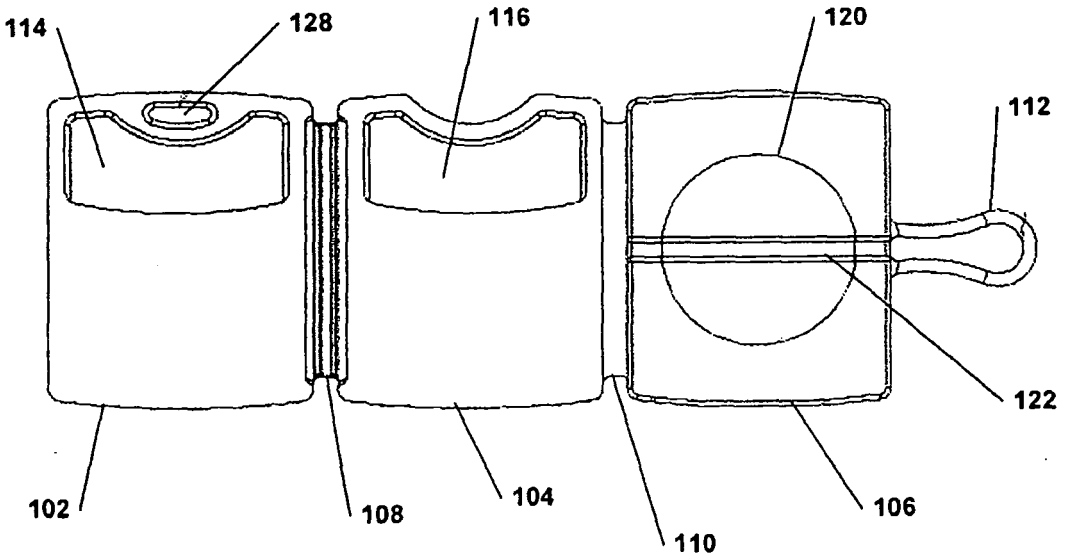

FIG. 1

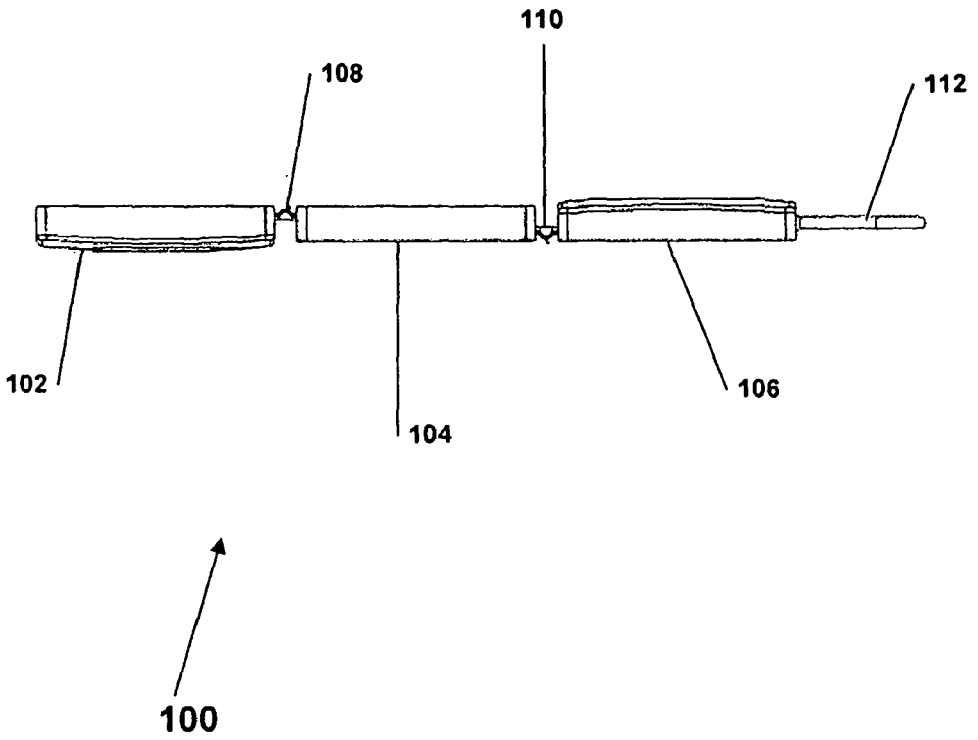

FIG. 2

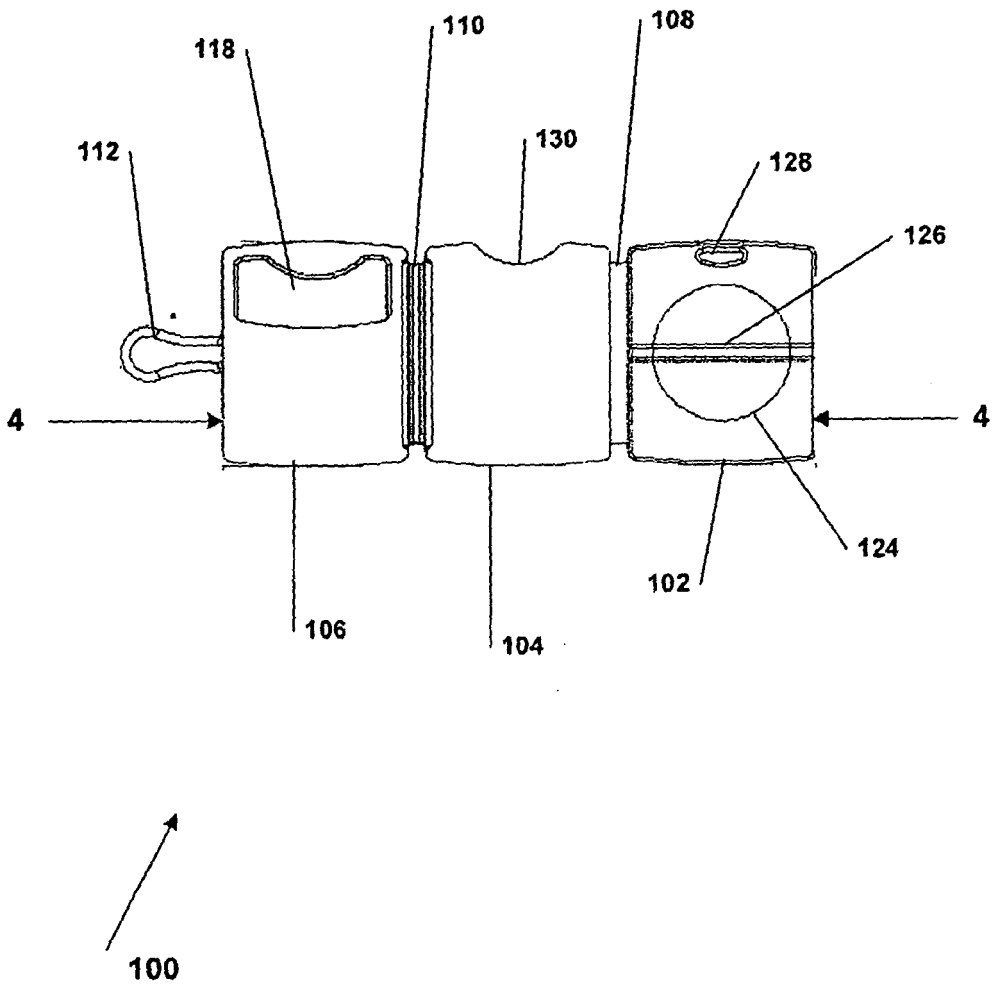

FIG. 3

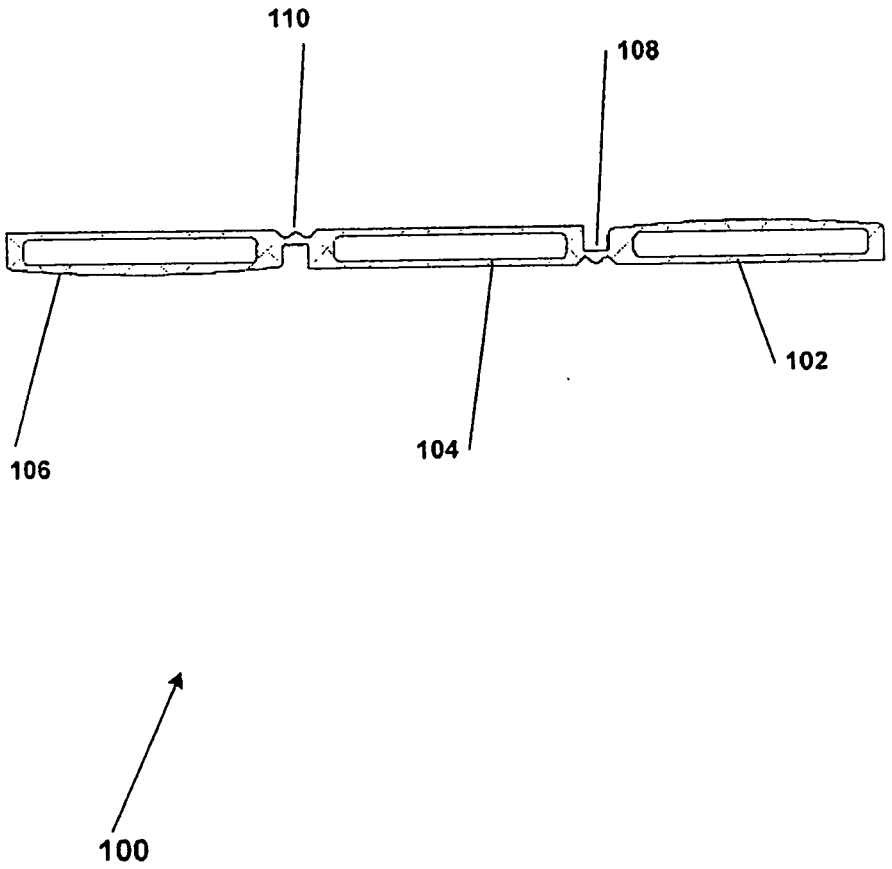

FIG. 4

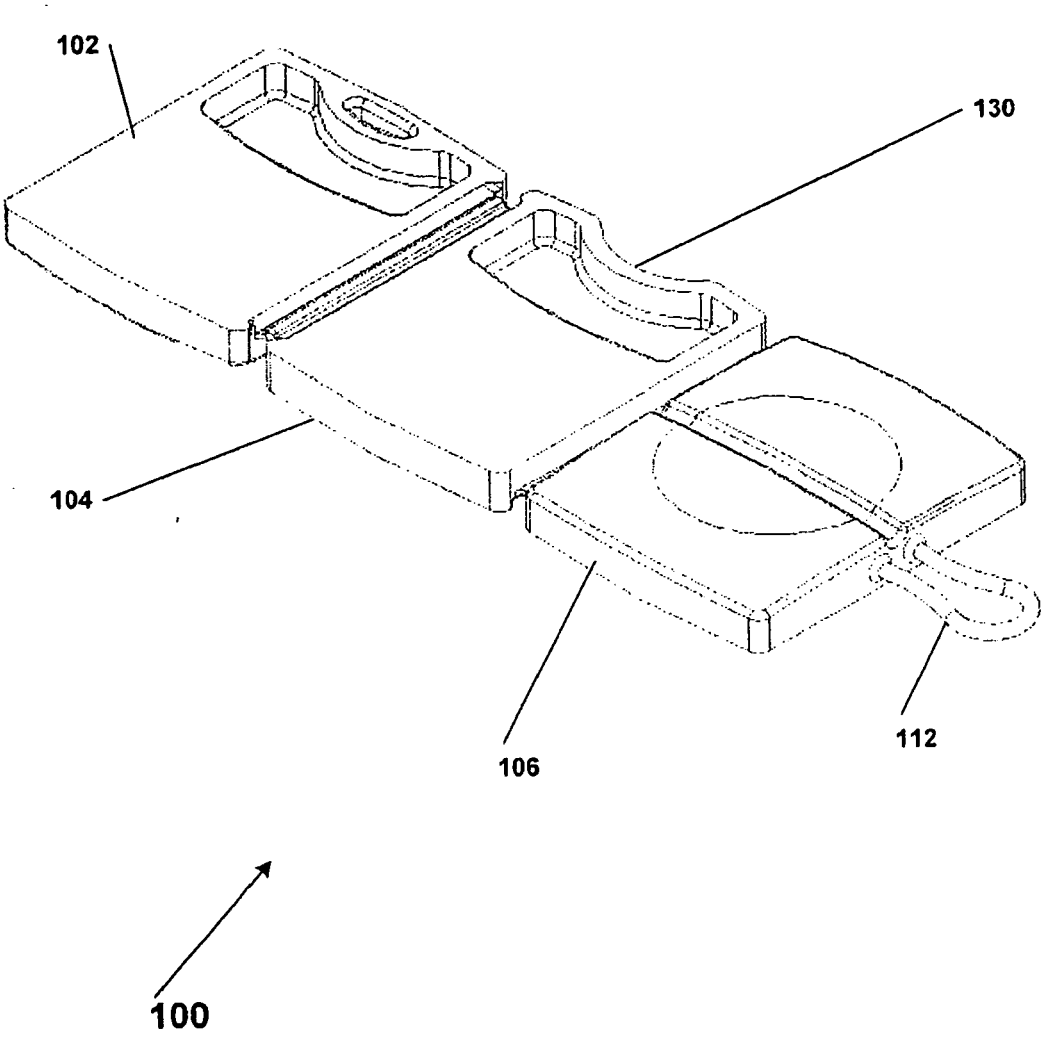

FIG. 5

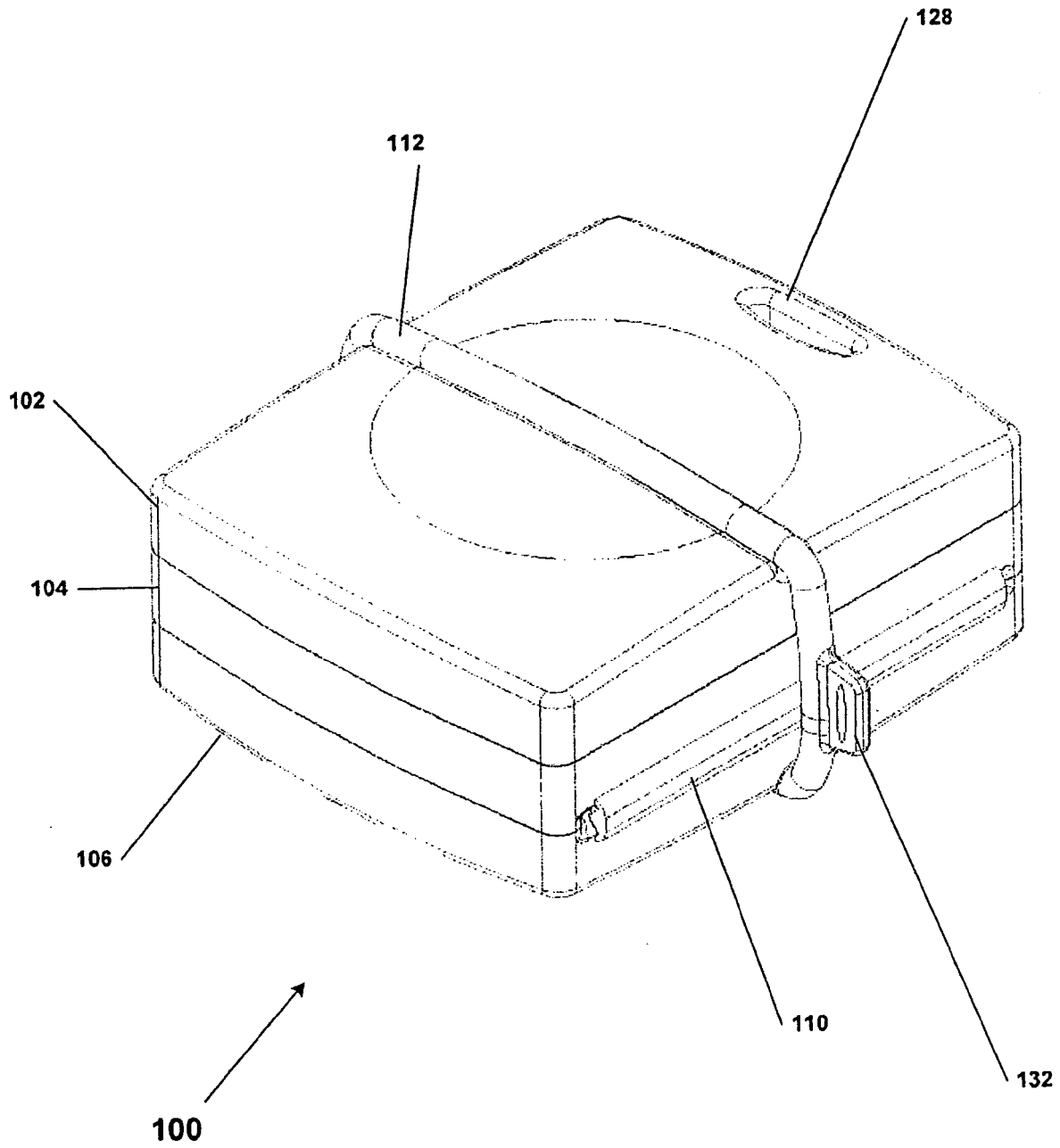

FIG. 6

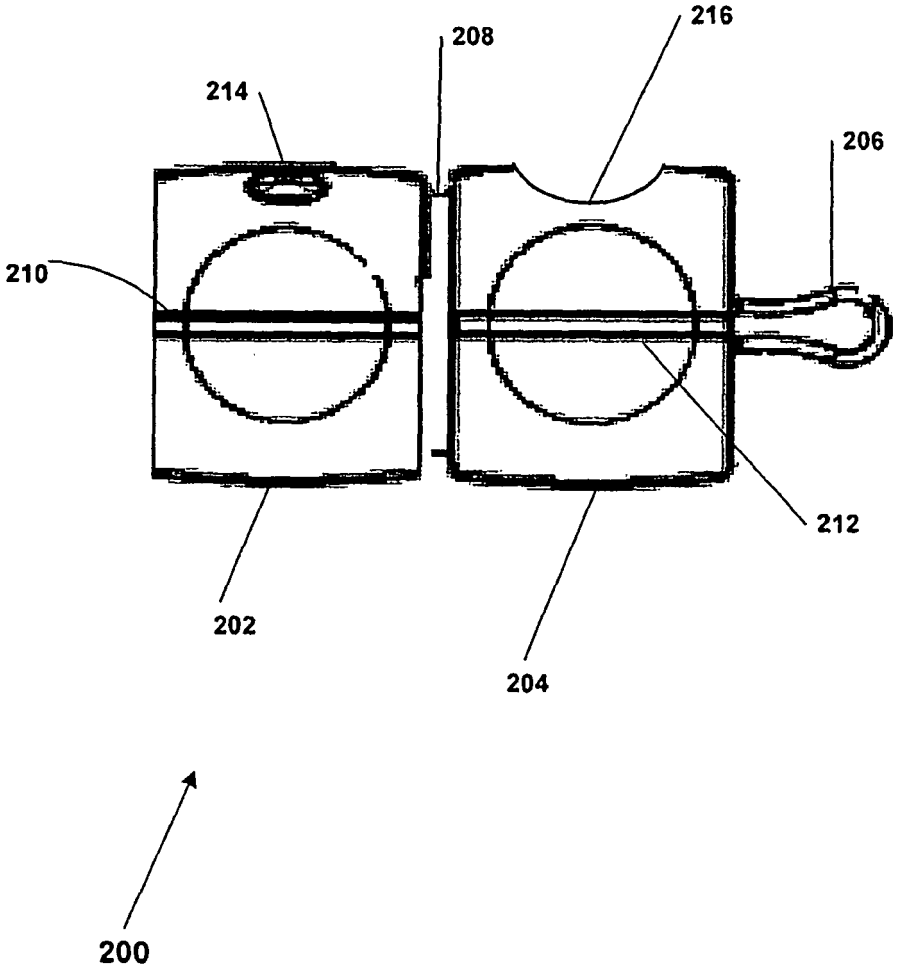

FIG. 7

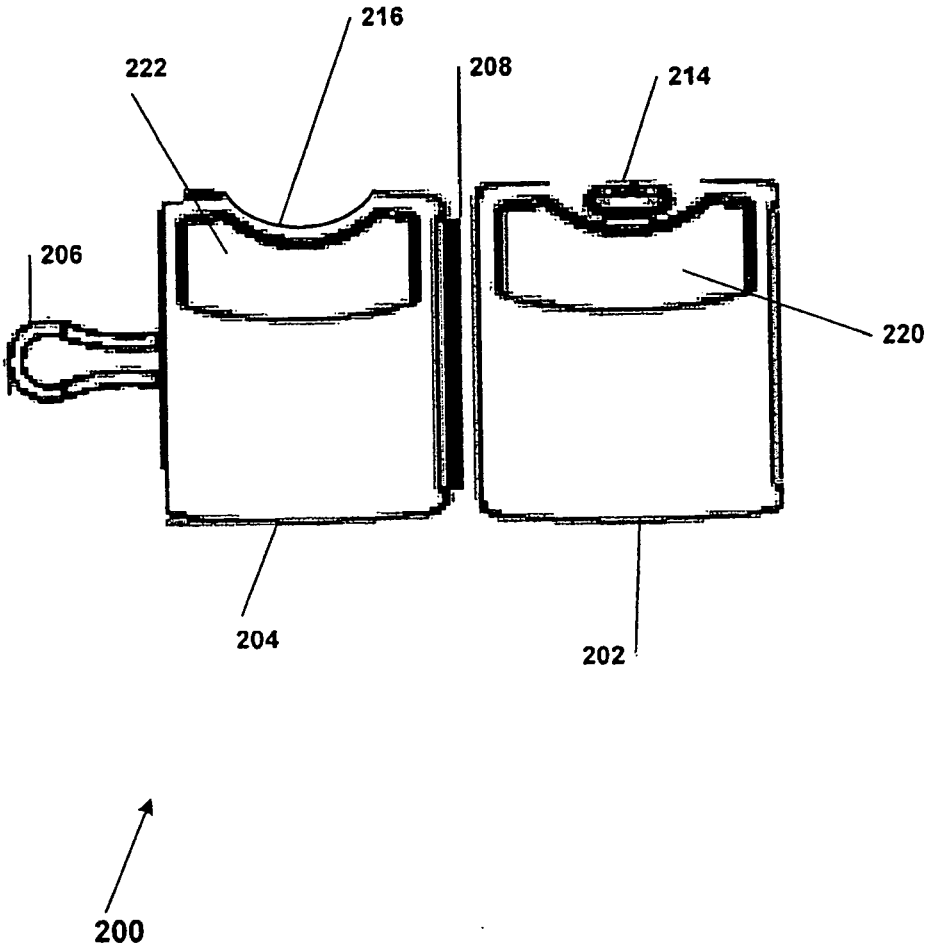

FIG. 8

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 08 25 1099

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2006/096943 A (DEJEAN JOSEPHINE HORTENSE [BE]) 21 September 2006 (2006-09-21) * page 1, line 14 - line 20 * * page 2, line 4 - line 36; claims; figures *	1,3,4, 6-11	INV. A45C11/18 A45C11/24
X	US 2005/258068 A1 (CHIEN YUEN-HUI [TW]) 24 November 2005 (2005-11-24) * paragraphs [0002], [0009], [0021], [0022]; claims; figures *	1,3,4, 6-11	
A	DE 199 14 961 A1 (M & W VERPACKUNGEN GMBH [DE]) 12 October 2000 (2000-10-12) * the whole document *	1-12	
A	GB 24840 A A.D. 1914 (BARON BERNHARD [GB]) 15 April 1915 (1915-04-15) * the whole document *	1-12	
A	US 4 874 092 A (LARA FRANCISCO J [US]) 17 October 1989 (1989-10-17) * the whole document *	1-12	TECHNICAL FIELDS SEARCHED (IPC) A45C A45D A24F B42F B65D G11B G06K
A	US 2006/108240 A1 (MACKINNON MARY A [US] MACKINNON MARY ANN [US]) 25 May 2006 (2006-05-25) * the whole document *	1-12	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	14 July 2008	Acerbis, Giorgio

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 08 25 1099

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-07-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2006096943 A	21-09-2006	BE 1016544 A3	09-01-2007
		EP 1885215 A1	13-02-2008
US 2005258068 A1	24-11-2005	NONE	
DE 19914961 A1	12-10-2000	NONE	
GB 191424840 A	15-04-1915	NONE	
US 4874092 A	17-10-1989	NONE	
US 2006108240 A1	25-05-2006	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- US 6840836 B **[0022] [0026]**