



(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
14.04.2010 Bulletin 2010/15

(51) Int Cl.:
A45C 13/00 (2006.01) A45C 13/18 (2006.01)

(21) Application number: **08750439.5**

(86) International application number:
PCT/ES2008/070080

(22) Date of filing: **23.04.2008**

(87) International publication number:
WO 2009/022042 (19.02.2009 Gazette 2009/08)

(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

(71) Applicant: **Layrana Fernández, Emilio**
Avda Valdelasfuentes 25 2º D
28700 San Sebastián De Los Reyes (ES)

(72) Inventor: **Layrana Fernández, Emilio**
Avda Valdelasfuentes 25 2º D
28700 San Sebastián De Los Reyes (ES)

(30) Priority: **02.08.2007 ES 200702171**

(74) Representative: **Pons Ariño, Angel**
Glorieta Ruben Dario 4
28010 Madrid (ES)

(54) **UNIVERSAL WATERPROOF ELASTIC DEVICE FOR PROTECTING SUITCASES OF DIFFERENT SIZES USING TAMPER-EVIDENT AND CUSTOMISABLE SEALS**

(57) It is a universal, waterproof, elastic device to protect suitcases (4) of different sizes with inviolable and customisable seal fasteners which consist of an extremely elastic, waterproof cover (2), resistant to abrasions

which has at least one opening (3) for inserting suitcases (4), equipped with customisable, inviolable seal fasteners (5). The cover (2) is of smaller dimensions than those of the suitcases (4) to adapt thereto due to its elasticity in all directions.

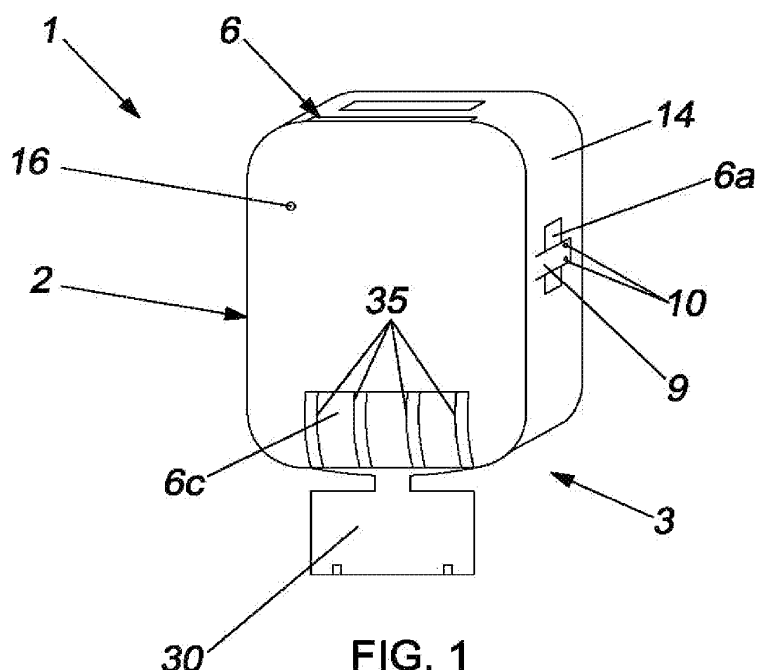


FIG. 1

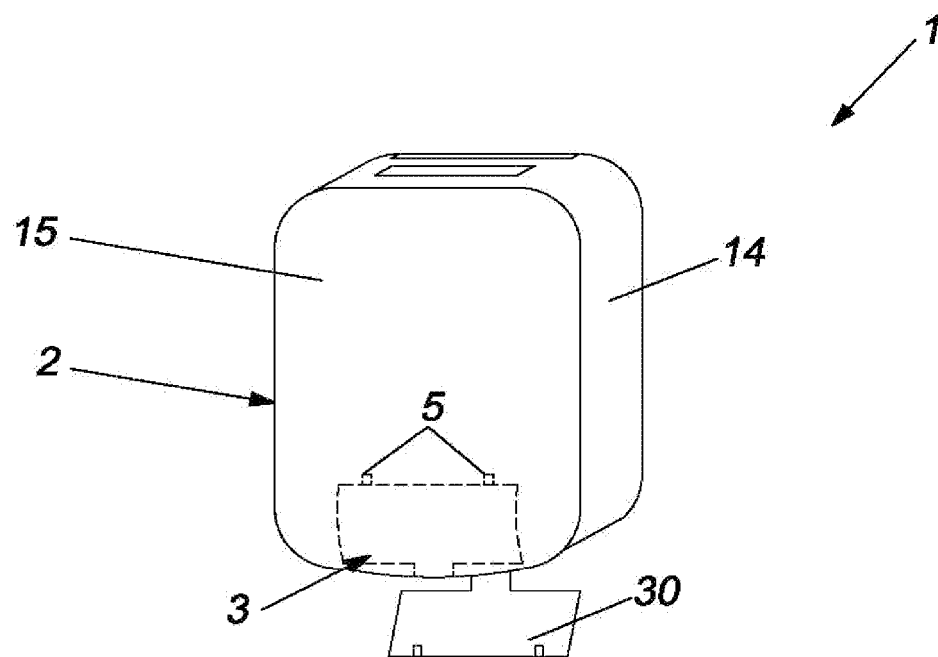


FIG. 2

Description

OBJECT OF THE INVENTION

[0001] The main object of the present invention is a device for protecting a suitcase, whose main aim is to prevent the suitcase from being opened by unauthorised persons and to protect it from abrasions resulting from handling in airports and similar facilities.

[0002] The device is elastic, waterproof and universal and protects suitcases of different sizes by a cover which is extremely elastic, waterproof and resistant to abrasions, which has an opening wherethrough the suitcase can be inserted and equipped with inviolable, customisable seal fasteners. The cover is of smaller dimensions than those of the suitcases to adapt to them due to its elasticity in all directions.

BACKGROUND OF THE INVENTION

[0003] It is known that suitcases, when handled in airports and similar facilities, are subject to abrasions and other damage. To overcome this drawback, manufacturers tend to make suitcase increasingly more hard-wearing, although as a result, they are also heavier and more expensive.

[0004] Another occurrence in these facilities is that during check-in, loading and off-loading of suitcases, unauthorised persons sometimes gain access to their content, and thefts have even been known to occur.

[0005] In an attempt to prevent this, it is increasingly frequent to see suitcases wrapped in plastic film, although this is an awkward job which does not effectively protect against abrasions and calls for the use of a specific machine. It also shows the suitcase in an unfavourable light and the wrapping is not reusable.

DESCRIPTION OF THE INVENTION

[0006] The device of the invention has an ideal constitution for protecting a suitcase against abrasions and undue opening.

[0007] According to the invention, the device consists of an extremely elastic and waterproof cover, resistant to abrasions, with at least one opening for inserting the suitcase.

[0008] Furthermore, the opening is closed with the help of inviolable and customisable seals, which, in order to extract the suitcase from the cover, would have to be broken, which would be easily detected even if it were to be resealed, due to the possibility of the seals being customised by means of silk-screen printing, pad printing, etc.

[0009] The cover is equipped with windows to admit the wheels and handles of the suitcase.

[0010] The format of the cover is slightly smaller than the dimensions of a small suitcase. Due to the high degree of elasticity of the material of the cover it will adapt

like a glove to any suitcase of any shape or size, protecting it from abrasions and undue handling. The material chosen to manufacture the cover is elastic enough to allow it to stretch to at least double its size.

[0011] The cover can be manufactured in a variety of materials. They could be chosen, for example, for among the following:

- polyamide,
- elastane, and
- polyurethane.

[0012] The cover is also equipped with pockets for storing documentation, such as tickets or passports.

DESCRIPTION OF THE DRAWINGS

[0013] In order to complement this description, and with the aim of aiding a better understanding of the characteristics of the invention, in accordance with a preferred example of a practical embodiment thereof, the present specification is accompanied by a set of drawings in whose figures, for illustrative and non-limitative purposes, the following details have been portrayed:

Figures 1 and 2 - Show various front and rear views of the cover constituting the object of the invention.

Figures 3 and 4 - Show various front and rear views of a suitcase protected with the device object of the invention.

Figures 5 to 7 - Show the parts of a pattern which could be used for manufacturing the cover of the device which is the object of the invention.

PREFERRED EMBODIMENT OF THE INVENTION

[0014] The device (1) for protecting a suitcase of the invention comprises a very elastic and waterproof cover (2), resistant to abrasions, with at least one opening (3) for admittance of the suitcase (4). Said opening (3) is closed with the cooperation of inviolable seals (5), and preferably by means of a flap (30) where said inviolable, customisable seals (5) are implemented.

[0015] The cover is equipped with windows (6, 6a, 6b, 6c) to admit the wheels (7, 7a) and the handles (8, 8a) of the suitcase (4).

[0016] One of the windows (6a) is placed in a position corresponding to that of some of the side handles (8a) of the suitcase (4). It is to these handles (8a) that the airport identification labels (11) are attached. In said window (6a) there is a small flap (9) with a fastener (10), the window (6a) being noticeably longer than the small flap (9) in order to admit the ends of the handle (8a) and leave the rest of the window protected by the small flap (9).

[0017] Another window (6c) is placed in a position corresponding to the rear wheels (7) of the suitcase and is larger in order to admit suitcases with two, three or more rear wheels (7), and also to be adaptable to the different

positions they may adopt. Owing to the size of this window (6c), wherethrough the suitcase could be pulled out, non-elastic belts (35) have been provided which bring the opposite edges together and cross it to prevent the extraction of the suitcase (4).

[0018] Other windows (6b) are placed in a position corresponding to the front wheels (7a) of the suitcase, if it is equipped with them.

[0019] Lastly, another window (6) is placed in a position corresponding to the rear, retractable handle of the suitcase (4), used for pulling the same along on its rear wheels (7).

[0020] The elasticity of the cover enables the same to be stretched to at least double its size. It can be constituted by one or more materials chosen from among the following:

- polyamide,
- elastane, and
- polyurethane.

[0021] By way of example, a multi-layer cover constituted by these three materials, regardless of the number of arrangement of the layers, can be elastically stretched until it reaches 100% - 150% its size when at rest. It can also be re-used repeatedly and ultimately discarded.

[0022] The inviolable seals (5), on the other hand comprise sleeves (12) wherethrough breakable fasteners (13) may advance but not retreat. The sleeves are attached to the edge of the opening (3) in order to lie opposite each other and receiving the fasteners. In the example portrayed in the drawings, there is a flap (30) which closes the opening (3); in this case the sleeves are attached to the edge of the same and in the area of the cover adjacent to the flap (30) when closed. Given the fact that the breakable fasteners (13) cannot retreat through the sleeves (12), they would have to be broken in order to open the cover, bearing witness to the suitcase (4) having been manipulated.

[0023] According to this example, in no way limiting, of embodiment of the invention, the cover (2) may be manufactured according to a pattern consisting of three parts sewn together: one perimeter closure part (14), one front panel (15) and another rear panel (16).

[0024] The perimeter closure part (14) has a shape generally considered to be oblong, with a narrower intermediate area (17) towards one of its ends, which forms a larger indent (18) corresponding to the window (6c), and originating from the part opposite said larger indent (18) is a T-shaped prolongation (19) which forms the flap (30) and lateral indents (20) which form the windows (6b). Indents (21, 22, 23) are implemented at the ends, which form windows (6, 6a) for admitting the handles (8, 8a). Some of these indents implement the small flaps (9) and their fasteners (10) corresponding to the windows (6a).

[0025] The rear panel (16) has a general rectangular shape, with an end indent (24), positioned to correspond with another lateral indent (21) on the perimeter closure

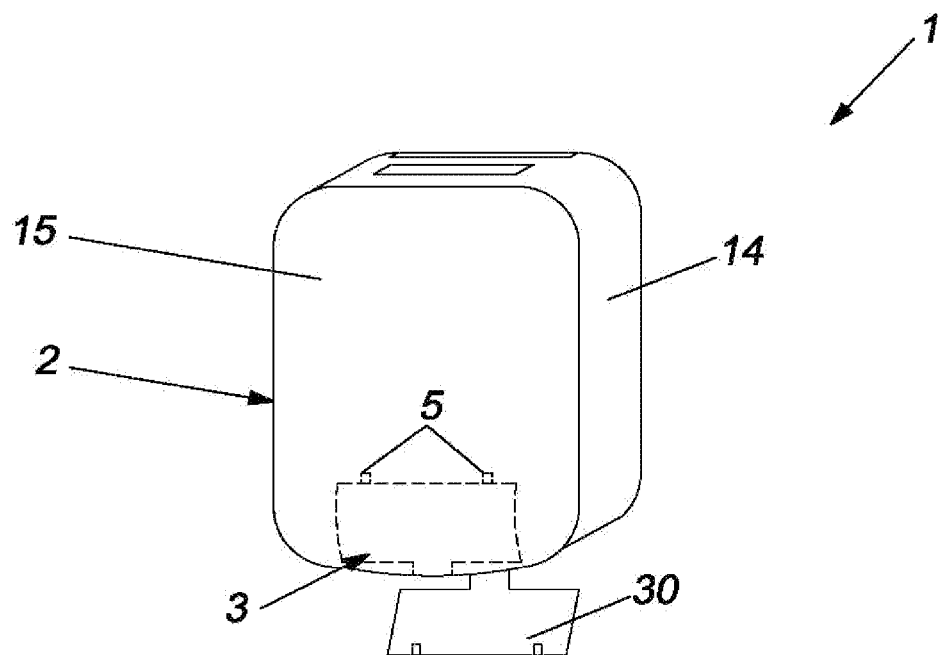
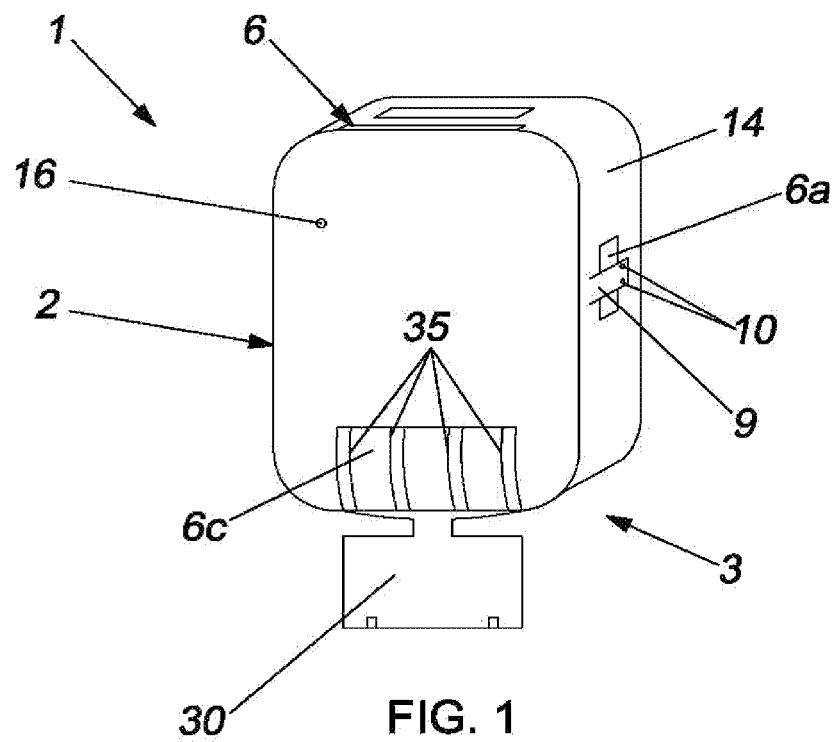
part (14) to help define the window (6). It also has a further indent on the opposite end (24) positioned to correspond with the larger indent (18) of the perimeter closure part (14) to help define the window (6c).

[0026] The front panel (15) has a general rectangular shape and implements the inviolable fasteners (5) complementary to the flap (30).

10 Claims

1. Device (1) for protecting a suitcase (4), preferably equipped with wheels (7, 7a) and handles (8, 8a); which comprises a waterproof cover (2), resistant to abrasions, with an opening (3) wherethrough the suitcase (4) is inserted, **characterised in that** the cover (2) is of smaller dimensions than those of a small suitcase (4), and of sufficient elasticity to stretch to at least double its size to adapt to any shape and size of suitcase; the cover also incorporates inviolable security seals (5) which conform the inviolable fastener (5) of the cover (2) around the suitcase (4).
2. Device (1) for protecting a suitcase according to claim 1, **characterised in that** the cover (2) has a flap (30) which closes the opening (3) once the cover (2) has adapted to the suitcase (4), and the security seals (5) are defined in a flap (30) and in the proximities of the opening (3) which conform the inviolable fastener (5) of the cover (2) around the suitcase (4).
3. Device (1) for protecting a suitcase according to claims 1 or 2, **characterised in that** the cover (2) is equipped with windows (6, 6a, 6b, 6c) to admit the wheels (7, 7a) and handles (8, 8a) of the suitcase (4).
4. Device (1) for protecting a suitcase according to claim 3, **characterised in that** at least one of the windows (6a) is positioned to correspond with some of the lateral handles (8a) of the suitcase (4) designed to receive the airport identification labels (11), and equipped with a small flap (9) with a fastener (10); said window (6a) being noticeably longer than the small flap (9) in order to allow space for the ends of the handle (8a).
5. Device (1) for protecting a suitcase according to claim 3, **characterised in that** another of the windows (6c) is positioned to correspond with the rear wheels (7) of the suitcase and are larger in order to adapt to suitcases with two, three or more rear wheels (7); there being non-elastic straps (35) in the window (6c) which draw the opposite edges together to prevent the suitcase (4) from being extracted from same.

6. Device (1) for protecting a suitcase according to claim 3, **characterised in that** other windows (6b) are positioned to correspond with the front wheels (7a) of the suitcase. 5
7. Device (1) for protecting a suitcase according to claim 3, **characterised in that** another of the windows (6) is positioned to correspond to the rear, retractable handle (8) of the suitcase (4). 10
8. Device (1) for protecting a suitcase according to claim 1, **characterised in that** the cover (2) is constituted by one or more materials chosen from the following: 15
- polyamide,
 - elastane, and
 - polyurethane.
9. Device (1) for protecting a suitcase according to claim 2, **characterised in that** the inviolable seals (5) comprise sleeves (12) which can be attached to the edges of the opening (3), and on the flap (30), designed to lie opposite each other when the cover (2) is closed, and breakable fasteners (13) which can advance through said sleeves (12) but cannot retreat. 20 25
10. Device (1) for protecting a suitcase according to claim 1, **characterised in that** the cover (2) is made from a pattern consisting of three parts sewn together: a perimeter closure part (14), a front panel (15) and a rear panel (16). 30
11. Device (1) for protecting a suitcase according to claims 3 and 10, **characterised in that** the perimeter closure part (14) has a generally considered oblong shape, with a narrower intermediate area (17) moved towards one of its ends, which defines a larger indent (18) corresponding to the window (6c), and originating from the part opposite said larger indent (18) is a T-shaped prolongation (19) which defines the flap (30) and lateral indents (20) which define the windows (6b); whilst indents (21, 22, 23) are implemented at its ends, which define the windows (6, 6a), some of which implement the small flaps (9) and their fasteners (10) 35 40 45
12. Device (1) for protecting a suitcase according to claims 3, 10 and 11, **characterised in that** the rear panel (16) has a general rectangular shape with an end indent (24) positioned to correspond with another lateral indent (21) on the perimeter closure part (14) to help define the window (6); and another opposite end indent (24) positioned to correspond with the larger indent (18) on the perimeter closure part (14) to help define the window (6c) 50 55
13. Device (1) for protecting a suitcase according to claims 3, 10 and 11, **characterised in that** the cover (2) has pockets for storing documentation.



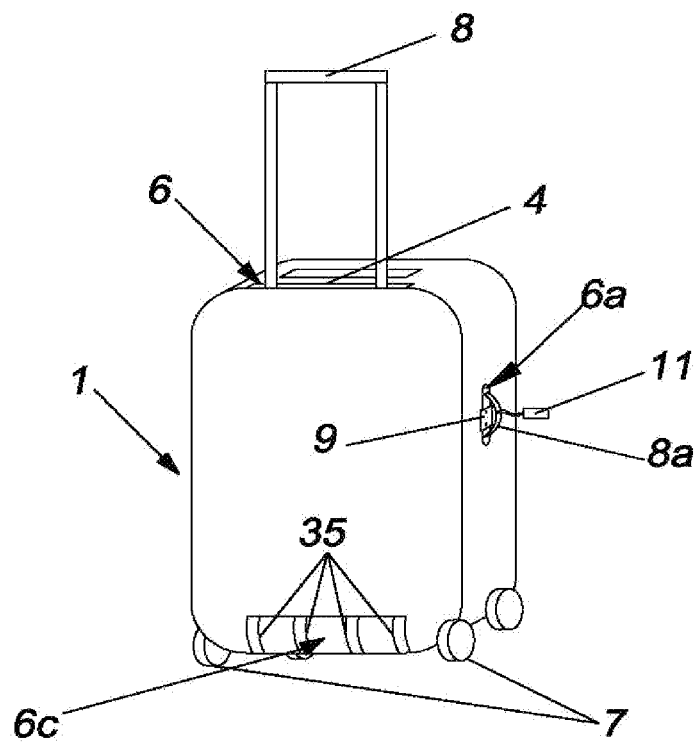


FIG. 3

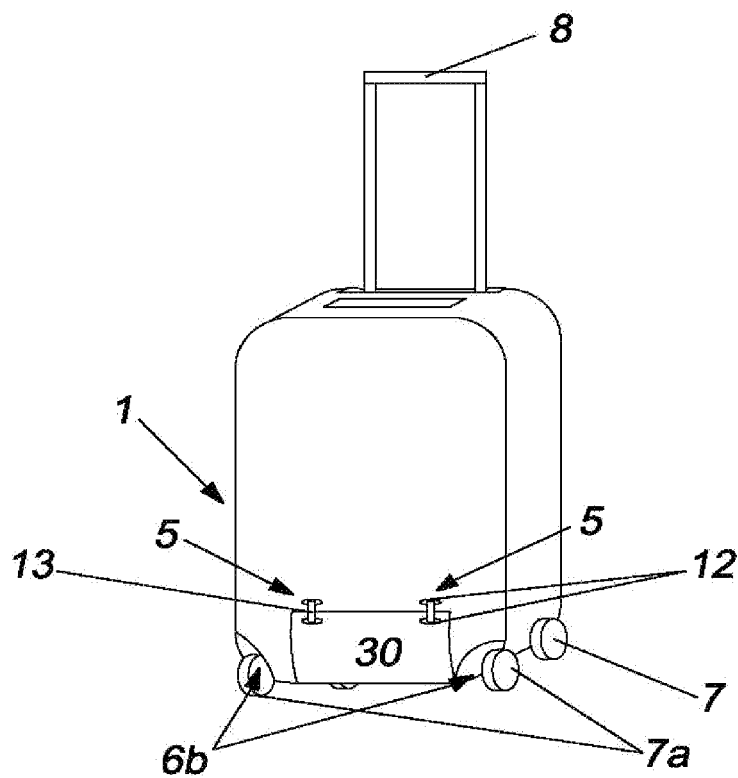


FIG. 4

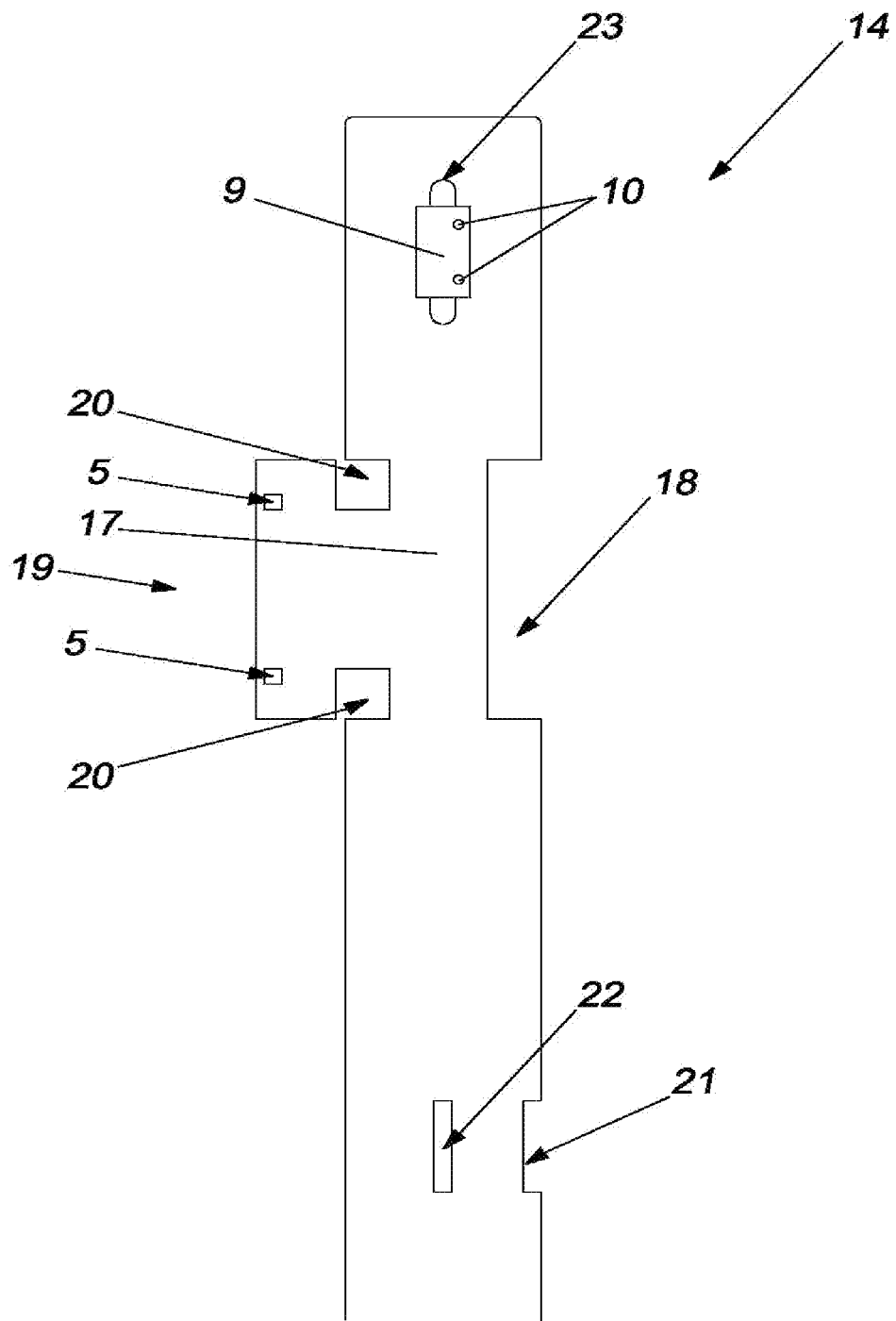


FIG. 5

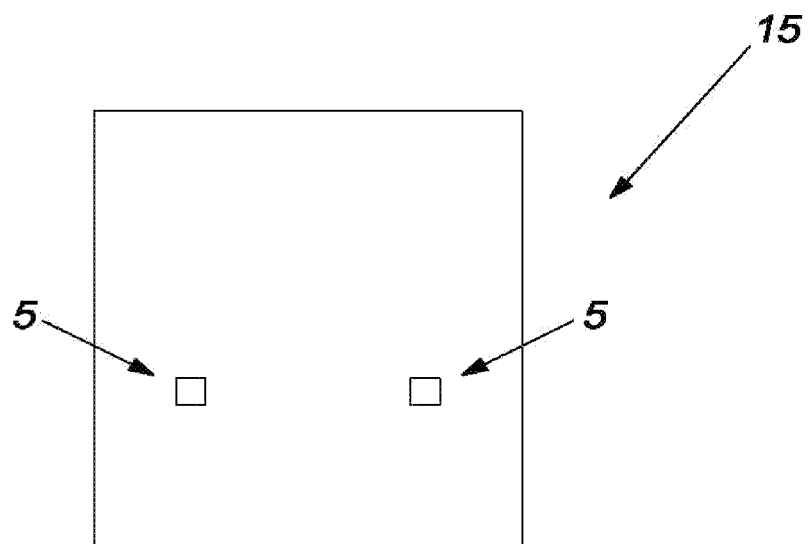
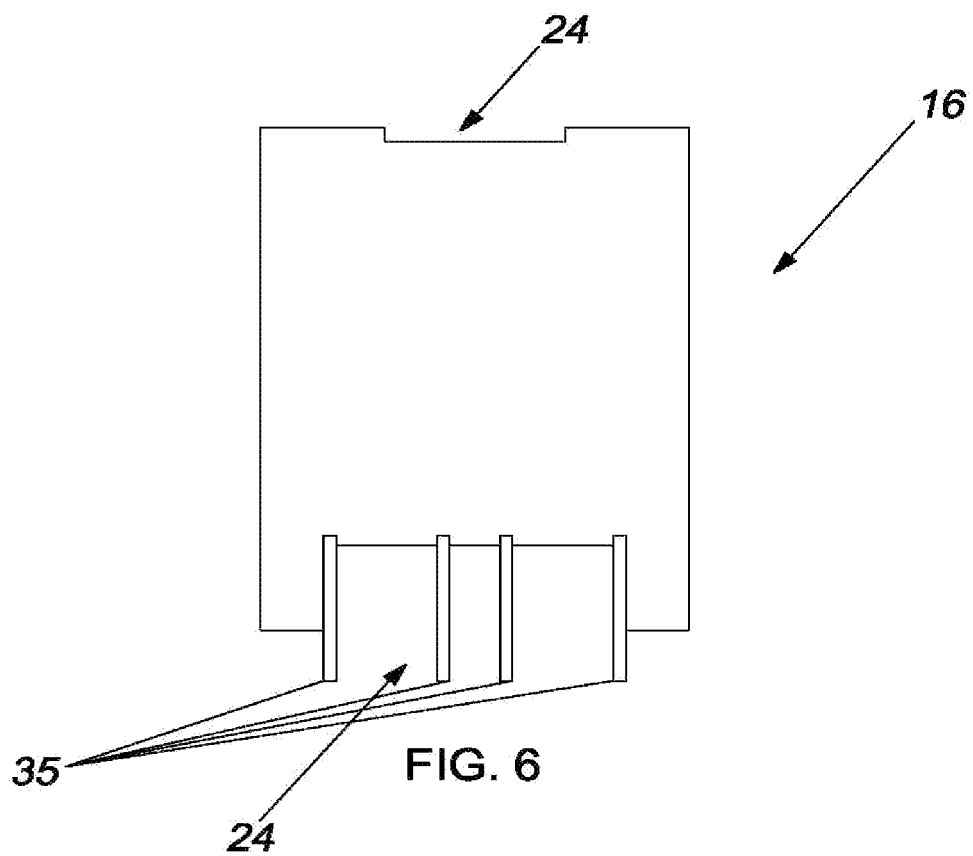


FIG. 7

INTERNATIONAL SEARCH REPORT

International application No
PCT/ES2008/070080

A. CLASSIFICATION OF SUBJECT MATTER INV. A45C13/00 A45C13/18		
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) A45C		
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 practical, search terms used) EPO-Internal, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2 711 234 A (DAVID RUBENS) 21 June 1955 (1955-06-21) the whole document	1-8, 10-13 3
Y A	US 2 647 595 A (MEYERS IRVING J) 4 August 1953 (1953-08-04) column 2, line 18 - line 58; figures 2-4	1-13 10-12
Y A	GB 2 147 497 A (PORTER KENNETH) 15 May 1985 (1985-05-15) abstract; figure 1	2,9 1,2
Y A	EP 0 537 400 A (FORTIN JEAN [FR] SECURTIR SA [LU]) 21 April 1993 (1993-04-21) column 1, lines 1-4, 40-42; figures 1-4 column 2, lines 18-28	1-13 1,9
-/-		
☒ 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 *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *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 *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
1 October 2008		13/10/2008
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer
		Escudero, Raquel

INTERNATIONAL SEARCH REPORT

International application No
PCT/ES2008/070080

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98/20770 A (STROUT PLASTICS [US]) 22 May 1998 (1998-05-22) page 6, line 3 - page 8, line 20; figures 2,3	1,2
X	DE 89 05 246 U1 (SASSENBAACH, THOMAS, 5609 HUECKESWAGEN, DE) 29 June 1989 (1989-06-29)	1,3-8, 10-13
A	page 1, paragraph 1; figures 1,2,5,6 page 4, paragraph 1 page 6 - page 10	4,5
A	US 2003/116392 A1 (OH SCOTT [US]) 26 June 2003 (2003-06-26) figures 1,2	3-5,7
X	US 7 077 251 B1 (GAITHER RICHARD L [US]) 18 July 2006 (2006-07-18)	1,3,5-8, 10-13
A	column 7, line 34 - column 8, line 19; figures 5-7	4,5, 10-12
A	US 2004/206431 A1 (METZIG JOHN D [US] ET AL) 21 October 2004 (2004-10-21) paragraphs [0040] - [0042]; figures 5-7	1,3,5
X	JP 07 308217 A (HIRATA NATSUKO) 28 November 1995 (1995-11-28)	1-3,5-7, 10
A	paragraphs [0006], [0009], [0012] - [0016]; figures 1-3	4

Form PCT/SA/210 (continuation of second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/ES2008/070080

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2711234	A	21-06-1955	NONE	
US 2647595	A	04-08-1953	NONE	
GB 2147497	A	15-05-1985	NONE	
EP 0537400	A	21-04-1993	CA 2091638 A1	16-09-1994
WO 9820770	A	22-05-1998	AU 5356698 A US 5947604 A US 5772330 A	03-06-1998 07-09-1999 30-06-1998
DE 8905246	U1	29-06-1989	NONE	
US 2003116392	A1	26-06-2003	AU 2002332677 A1 WO 03056969 A1	24-07-2003 17-07-2003
US 7077251	B1	18-07-2006	NONE	
US 2004206431	A1	21-10-2004	NONE	
JP 7308217	A	28-11-1995	NONE	