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

UNIVERSELLE WASSERDICHTE ELASTISCHE VORRICHTUNG ZUM SCHUTZ VON KOFFERN
UNTERSCHIEDLICHER GRÖSSE UNTER VERWENDUNG VON MANIPULATIONSSICHEREN UND
ANPASSBAREN DICHTUNGEN

DISPOSITIF ÉLASTIQUE IMPERMÉABLE UNIVERSEL DESTINÉ À PROTÉGER DES VALISES DE
DIFFÉRENTES TAILLES ET FAISANT APPEL À DES MOYENS DE FERMETURE INVOLABLES ET
PERSONNALISABLES

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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 re-usable.

[0006] Another example of a device for protecting a suitcase is disclosed in document US-A1-2711234.

DESCRIPTION OF THE INVENTION

[0007] The device of the invention has the features of claim 1 and has an ideal constitution for protecting a suitcase against abrasions and undue opening.

[0008] 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.

[0009] 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.

[0010] The cover is equipped with windows to admit the wheels and handles of the suitcase.

[0011] The format of the cover is slightly smaller than

the dimensions of the 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.

[0012] The cover can be manufactured in a variety of materials. They could be chosen, for example, from among the following:

- polyamide,
- elastane, and
- polyurethane.

[0013] The cover is also equipped with pockets for storing documentation, such as tickets or passports.

DESCRIPTION OF THE DRAWINGS

[0014] 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

[0015] 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 security seals (5), and by means of a flap (30) where said inviolable, customisable security seals (5) are implemented.

[0016] 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).

[0017] 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).

[0018] 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).

[0019] Other windows (6b) are placed in a position corresponding to the front wheels (7a) of the suitcase, if it is equipped with them.

[0020] 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).

[0021] 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.

[0022] 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.

[0023] The inviolable security 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.

[0024] 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).

[0025] 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).

[0026] 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).

[0027] The front panel (15) has a general rectangular shape and implements the inviolable security seals (5) complementary to the flap (30).

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, said opening (3) being closed with the cooperation of security seals (5) which conform the fastener of the cover (2) around the suitcase (4), wherein the cover (2) is of smaller dimensions than those of the suitcase (4), and of sufficient elasticity to stretch to at least double its size to adapt to any shape and size of suitcase, **characterised in that** the security seals (5) have to be broken in order to extract the suitcase from the cover, and **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 the flap (30) and in the proximities of the opening (3) which conform the fastener of the cover (2) around the suitcase (4) and **in that** the security 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.
2. Device (1) for protecting a suitcase according to claim 1, **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).
3. Device (1) for protecting a suitcase according to claim 2, **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).
4. Device (1) for protecting a suitcase according to claim 2, **characterised in that** one of the windows (6c) is positioned to correspond with the rear wheels (7) of the suitcase and is 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.

5. Device (1) for protecting a suitcase according to claim 2, **characterised in that** other windows (6b) are positioned to correspond with the front wheels (7a) of the suitcase.
6. Device (1) for protecting a suitcase according to claim 2, **characterised in that** another of the windows (6) is positioned to correspond to the rear, retractable handle (8) of the suitcase (4).
7. 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:
 - polyamide,
 - elastane, and
 - polyurethane.
8. 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).
9. Device (1) for protecting a suitcase according to claim 2, **characterised in that** the cover (2) has pockets for storing documentation.

Patentansprüche

1. Gerät (1) zum Schützen eines Koffers (4), vorzugsweise ausgestattet mit Rädern (7, 7a) und Griffen (8, 8a), das eine wasserdichte Abdeckung (2) umfasst, die abriebbeständig ist, mit einer Öffnung (3), durch die der Koffer (4) eingeführt wird, wobei die Öffnung (3) mit dem Zusammenwirken von Sicherheitsabdichtungen (5) geschlossen wird, die den Halter der Abdeckung (2) um den Koffer (4) bilden, wobei die Abdeckung (2) kleinere Abmessungen als die des Koffers (4) hat, und ausreichende Elastizität hat, um sich mindestens auf das Doppelte seiner Größe zu dehnen, um sich an jede Form und Größe von Koffern anzupassen, **dadurch gekennzeichnet, dass** die Sicherheitsabdichtungen (5) aufgebrochen werden müssen, um den Koffer aus der Abdeckung herauszunehmen, und dass die Abdeckung (2) eine Klappe (30) hat, die die Öffnung (3) schließt, nachdem sich die Abdeckung (2) an den Koffer (4) angepasst hat, und die Sicherheitsabdichtungen (5) in der Klappe (30) und in der Nähe der Öffnung (3) definiert sind, die den Halter der Abdeckung (2) um den Koffer (4) bilden, und dass die Sicherheitsab-

dichtungen (5) Hülsen (12) umfassen, die an den Rändern der Öffnung (3) und an der Klappe (30) angebracht werden können, und so konstruiert sind, dass sie sich gegenüberliegen, wenn die Abdeckung (2) geschlossen ist, und brechbare Halter (13), die vorwärts durch die Hülsen (12), aber nicht zurückgeschoben werden können.

2. Gerät (1) zum Schützen eines Koffers nach Anspruch 1, **dadurch gekennzeichnet, dass** die Abdeckung (2) mit Fenstern (6, 6a, 6b, 6c) ausgestattet ist, um die Räder (7, 7a) und Griffe (8, 8a) des Koffers (4) zuzulassen.
3. Gerät (1) zum Schützen eines Koffers nach Anspruch 2, **dadurch gekennzeichnet, dass** mindestens eines der Fenster (6a) positioniert ist, um mit einigen der seitlichen Griffe (8a) des Koffers (4) übereinzustimmen, und konstruiert ist, um die Flughafen-Identifizierungsaufkleber (11) zu erhalten, und mit einer kleinen Klappe (9) mit einem Halter (10) ausgestattet ist, wobei dieses Fenster (6a) deutlich größer als die kleine Klappe (9) ist, um Raum für die Enden des Griffs (8a) zu erlauben.
4. Gerät (1) zum Schützen eines Koffers nach Anspruch 2, **dadurch gekennzeichnet, dass** eines der Fenster (6c) positioniert ist, um mit den hinteren Rädern (7) des Koffers übereinzustimmen und größer ist, um sich an Koffer mit zwei, drei oder mehr hinteren Rädern (7) anzupassen, wobei es nicht elastische Bänder (35) im Fenster (6c) gibt, die die gegenüberliegenden Ränder zusammenziehen, um zu verhindern, dass der Koffer (4) daraus entnommen wird.
5. Gerät (1) zum Schützen eines Koffers nach Anspruch 2, **dadurch gekennzeichnet, dass** andere Fenster (6b) positioniert sind, um mit den vorderen Rädern (7a) des Koffers übereinzustimmen.
6. Gerät (1) zum Schützen eines Koffers nach Anspruch 2, **dadurch gekennzeichnet, dass** ein anderes der Fenster (6) positioniert ist, um mit dem hinteren, einziehbaren Griff (8) des Koffers (4) übereinzustimmen.
7. Gerät (1) zum Schützen eines Koffers nach Anspruch 1, **dadurch gekennzeichnet, dass** die Abdeckung (2) aus einem oder mehreren Materialien gewählt unter den folgenden besteht:
 - Polyamid,
 - Elasthan, und
 - Polyurethan.
8. Gerät (1) zum Schützen eines Koffers nach Anspruch 1, **dadurch gekennzeichnet, dass** die Ab-

deckung (2) aus einer Struktur ist, die aus drei vernähten Teilen besteht: einem Umfangabschlussteil (14), einer vorderen Tafel (15) und einer hinteren Tafel (16).

9. Gerät (1) zum Schützen eines Koffers nach Anspruch 2, **dadurch gekennzeichnet, dass** die Abdeckung (2) Taschen zum Aufbewahren von Dokumenten hat.

Revendications

1. Dispositif (1) destiné à protéger une valise (4), de préférence équipée de roulettes (7, 7a) et de poignées (8, 8a) ; qui comprend un couvercle imperméable (2), résistant à l'abrasion, avec une ouverture (3) à travers laquelle est insérée la valise (4), ladite ouverture (3) étant fermée à l'aide de moyens de fermeture sécurisés (5) qui forment la fermeture du couvercle (2) autour de la valise (4), où le couvercle a des dimensions inférieures à celles de la valise (4), et une élasticité suffisante pour s'étirer jusqu'à au moins le double de son volume afin de s'adapter à n'importe quelle forme et dimension de la valise, **caractérisé en ce que** les moyens de fermeture sécurisés (5) doivent être rompus afin de retirer la valise du couvercle, et **en ce que** le couvercle (2) a un rabat (30) qui ferme l'ouverture (3) une fois que le couvercle (2) s'est adapté à la valise (4), et les moyens de fermeture sécurisés (5) sont intégrés dans le rabat (30) et à proximité de l'ouverture (3) formant la fermeture du couvercle (2) autour de la valise (4), et **en ce que** les moyens de fermeture sécurisés (5) incluent des brides (12) qui peuvent être fixées aux bords de l'ouverture (3), et sur le rabat (30), conçues de telle sorte qu'elles se retrouvent en face l'une de l'autre lorsque le couvercle (2) est fermé, et des attaches cassables (13) qui peuvent s'introduire à travers ces brides (12) mais qui ne peuvent pas se retirer.
2. Dispositif (1) destiné à protéger une valise selon la revendication 1, **caractérisé en ce que** le couvercle (2) est équipé de fenêtres (6, 6a, 6b, 6c) afin d'y loger les roulettes (7, 7a) et les poignées (8, 8a) de la valise (4).
3. Dispositif (1) destiné à protéger une valise selon la revendication 2, **caractérisé en ce que**, au moins l'une des fenêtres (6a) est positionnée de sorte à correspondre à certaines des poignées latérales (8a) de la valise (4), conçues pour recevoir les étiquettes d'identification des aéroports (11) et équipées d'un petit rabat (9) avec une attache (10) ; ladite fenêtre (6a) étant sensiblement plus longue que le petit rabat (9) afin de laisser un espace suffisant aux extrémités de la poignée (8a).

4. Dispositif (1) destiné à protéger une valise selon la revendication 2, **caractérisé en ce que** l'une des fenêtres (6c) est positionnée de sorte à correspondre aux roulettes arrière (7) de la valise et que ladite fenêtre est plus large afin de s'adapter aux valises ayant deux, trois ou plusieurs roulettes arrière (7) ; sans aucune sangle non élastique (35) dans la fenêtre (6c) pour maintenir les bords opposés ensemble afin d'empêcher que la valise (4) ne soit retirée de celle-ci.

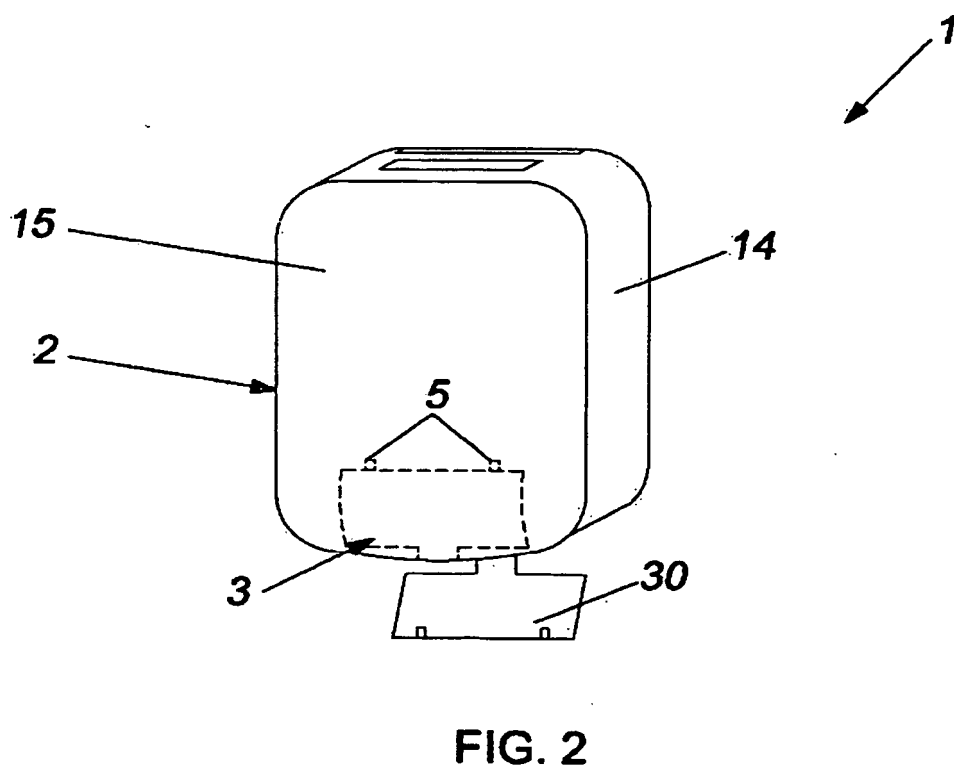
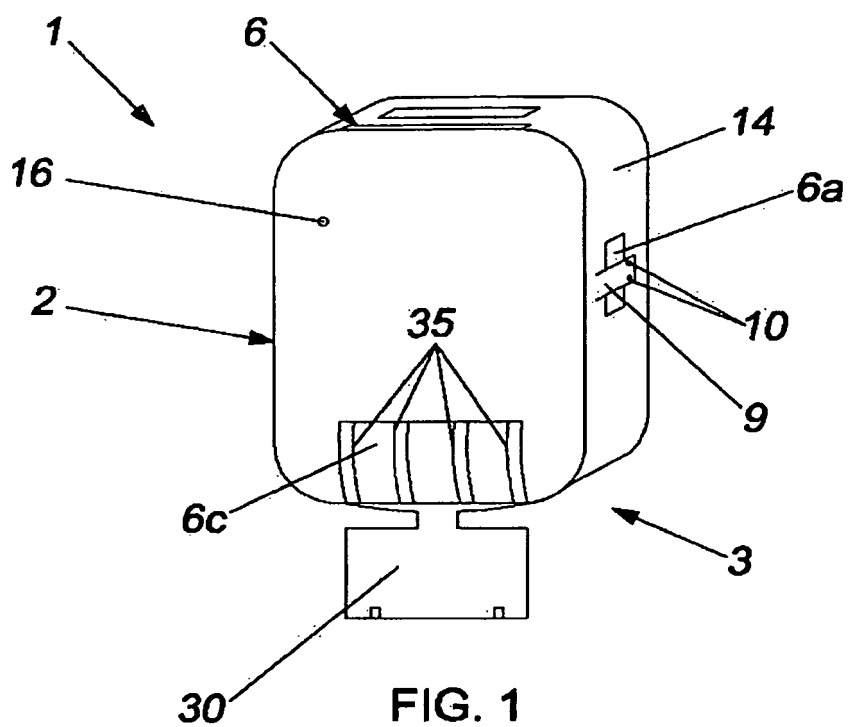
5. Dispositif (1) destiné à protéger une valise selon la revendication 2, **caractérisé en ce que** d'autres fenêtres (6b) sont positionnées de sorte à correspondre aux roulettes avant (7a) de la valise.

6. Dispositif (1) destiné à protéger une valise selon la revendication 2, **caractérisé en ce qu'**une autre des fenêtres (6) est positionnée de sorte à correspondre à la poignée postérieure et rétractable (8) de la valise (4).

7. Dispositif (1) destiné à protéger une valise selon la revendication 1, **caractérisé en ce que** le couvercle (2) est constitué d'un ou plusieurs matériaux choisis parmi les suivants :

- polyamide,
- élasthanne, et
- polyuréthane.

8. Dispositif (1) destiné à protéger une valise selon la revendication 1, **caractérisé en ce que** le couvercle (2) est réalisé à partir d'un patron composé de trois pièces cousues ensemble : une pièce de fermeture périmétrale (14), un panneau avant (15) et un panneau arrière (16).
9. Dispositif (1) destiné à protéger une valise selon la revendication 2, **caractérisé en ce que** le couvercle (2) possède des poches pour y ranger des documents.



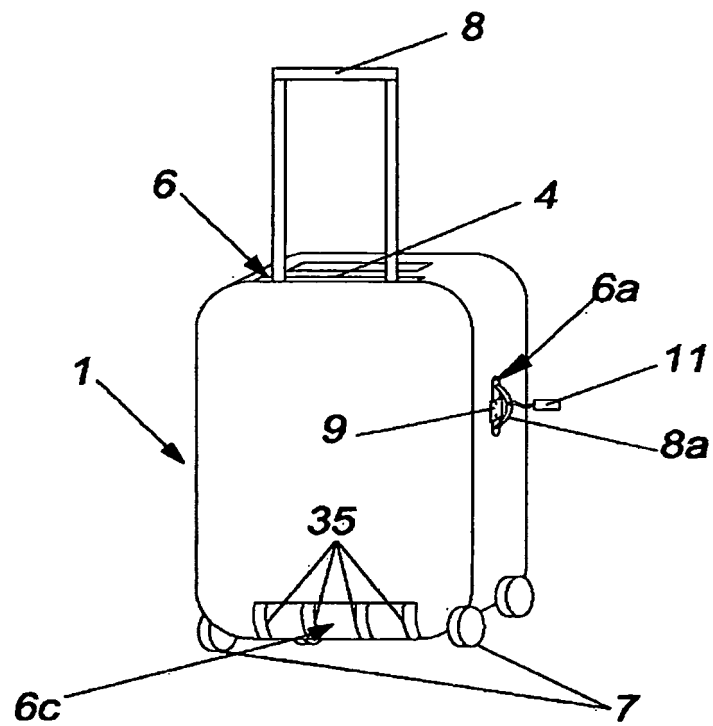


FIG. 3

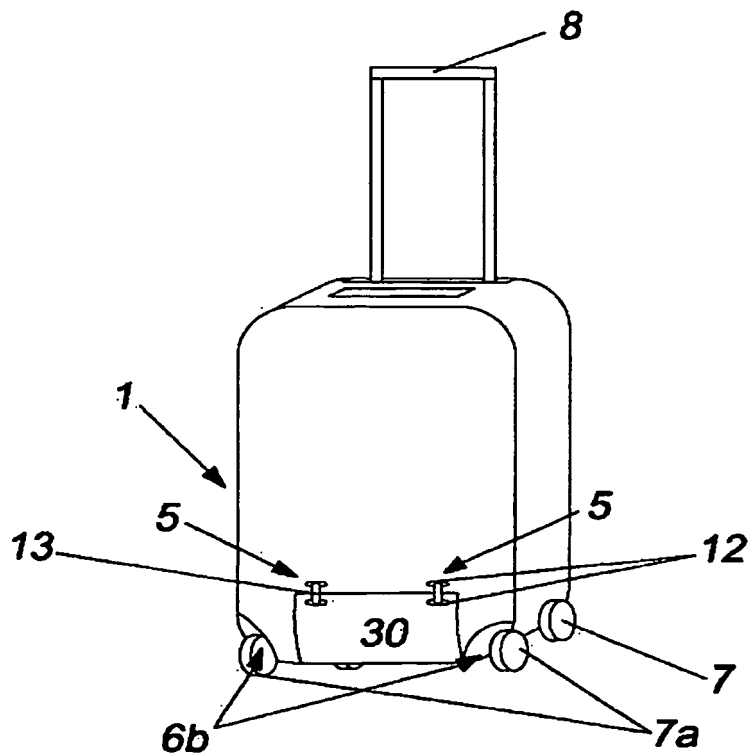


FIG. 4

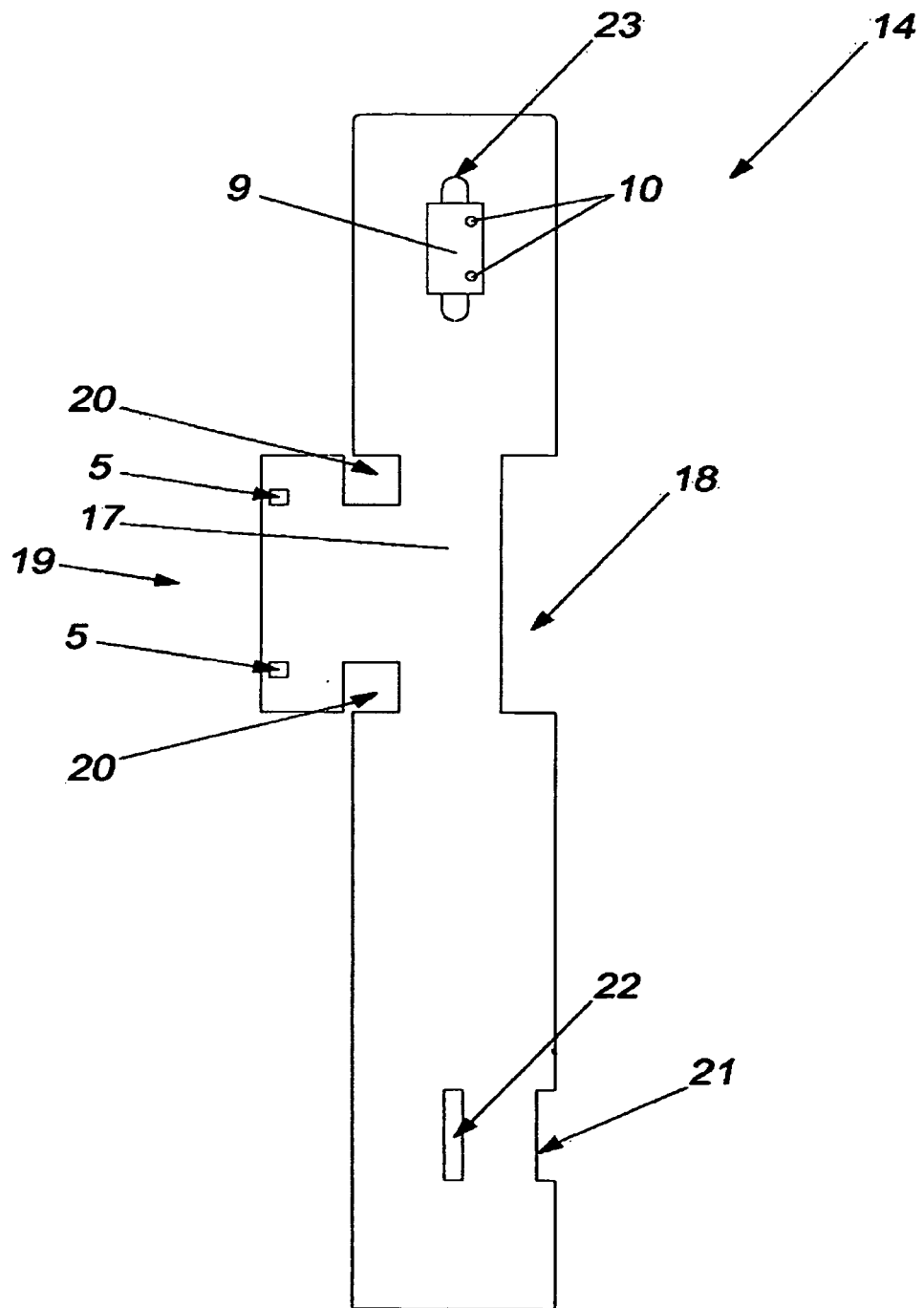
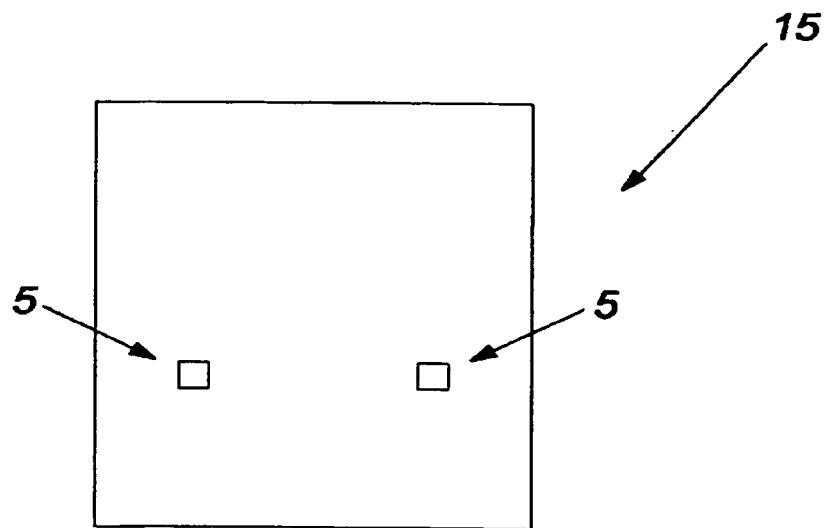
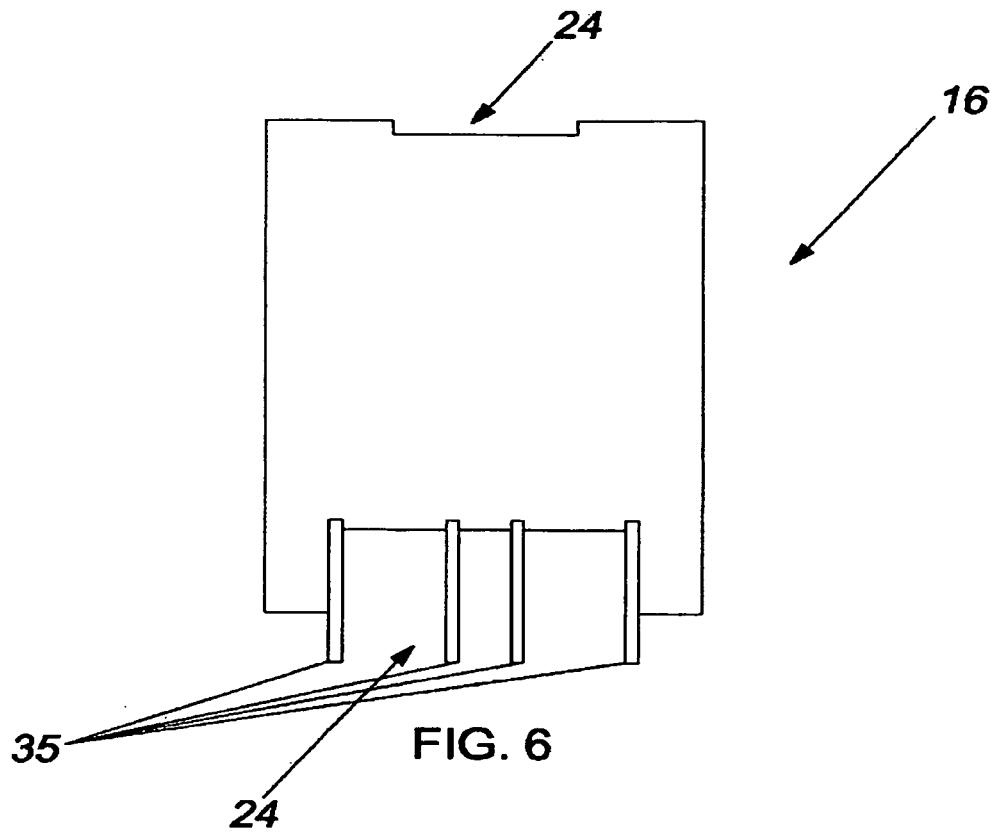


FIG. 5



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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