



(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 897 033 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
17.02.1999 Bulletin 1999/07

(51) Int. Cl.⁶: E01H 1/12

(21) Application number: 98201453.2

(22) Date of filing: 07.05.1998

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Torriani, Massimiliano**
55036 Pieve Fosciana, LU (IT)

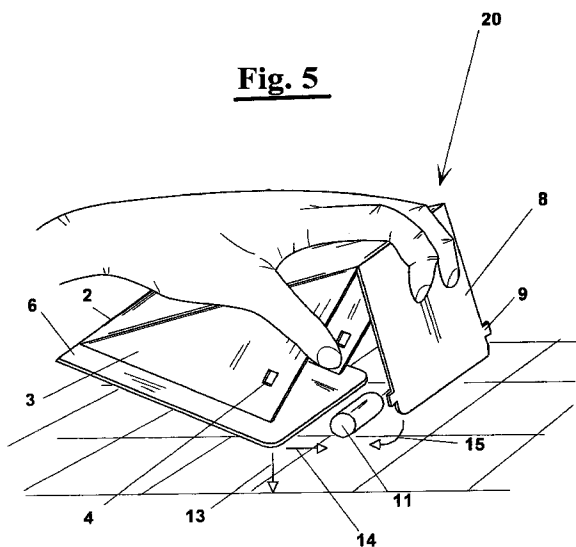
(74) Representative: **Celestino, Marco**
ABM, Agenzia Brevetti & Marchi,
Via A. Della Spina 40
56125 Pisa (IT)

(30) Priority: 12.08.1997 IT LU970014 U

(71) Applicant:
Torriani, Massimiliano
55036 Pieve Fosciana, LU (IT)

(54) Disposable container for picking up domestic animal droppings

(57) Disposable container for picking up domestic animals droppings, in particular made of corrugated cardboard, comprising a flat bottom (6) substantially stiff from which foldably extends at least a wall (2) to which wings (3, 8) are in turn foldably connected suitable for snap fitting with one another and with the flat bottom (6) thus defining a closed space along with the wall (2). At least one of the wings (8) acts as a lid and eventually snap fits on the other (3) thus pushing the droppings (11) on the base (6) before definitively closing said space. The container can be obtained from a single development made of cardboard (1) and can be closed like a wallet by a glue drop (10). The container (20) has the advantages of being made of a disposable not environmentally harmful material, which can be easily discharged; to prevent the user from getting dirty and to be ready for the use; it can be sold and packed taking not much space; it is made as a single element and can be closed by snap fit engagement, whereby once closed there is not risk that it opens again.

Fig. 5

EP 0 897 033 A1

Description

[0001] The present invention relates to a disposable container for picking up domestic animals droppings, in particular, but not exclusively, of dogs.

[0002] The invention relates also to a development of a container in cardboard and similar material to make such a container.

Brief description of the prior art

[0003] Devices for picking up droppings of domestic animals, in particular, but not exclusively, of dogs, are known of many types each having different features and drawbacks.

[0004] Plastic bags are known, for example, comprising pliers integral to the bag. The pliers are used for picking up the droppings that are then wrapped up in the bag. The drawbacks of this device are above all the cost and the low biodegradability of plastics. In addition, the picking up effectiveness is not the same according to the consistency of the droppings.

[0005] In another known method a box and a shovel or dustpan or the like are used. The box is usually made of cardboard but the shovel is made of plastics, causing again environmental problems for the disposal of the waste produced. It is to be noted that such collecting system consists of two elements that can create space problems when carrying them and convenience problems because their use requires both hands.

[0006] It is at present not known a picking up system that gathers the functions of box and shovel, and that can be used with only one hand, that does not have problems when picking up, easy to manoeuvre, of minimum size, entirely recyclable and not much expensive.

Summary of the invention

[0007] It is an object of the present invention to provide a new disposable container for picking up domestic animals droppings, in particular, but not exclusively, of dogs, that is entirely recyclable, not much expensive, easy to manoeuvre and that does not require the aid of other accessories.

[0008] It is another object of the present invention to provide a development of a container made of cardboard used to make this container with an easy manoeuvre for a user.

[0009] These and other objects are achieved by the container, according to the present invention, made of corrugated cardboard or similar material, that comprises a substantially stiff flat bottom from which at least a wall foldably extends to which a plurality of wings are in turn foldably connected suitable for closing in a snap fit engagement onto the flat bottom defining along with said wall a closed space.

[0010] One of these wings acts as lid of the container eventually closing in a snap fit engagement on the other

wings and besides is capable of pushing the droppings being picked up onto the base of the container before closing it definitively.

[0011] This way the problem is avoided of using other tools for pushing inside of the container the droppings to remove. In addition, the droppings are removed by scraping on the ground the flat bottom of the container and then pushing the lid, thus substantially eliminating the problems which arise when the droppings are not much consistent.

[0012] With reference to a particular embodiment, the container can have substantially prismatic shape with triangular cross section, the flat bottom can be for example rectangular and from it a wall that is arranged obliquely can foldable extend; from said wall the foldable lid extends at the side opposite to that of the flat bottom, and the other two triangular shaped wings are foldably connected to the other two sides of said wall. The triangular wings can have projections suitable for snap fitting with notches made on the flat bottom, and the lid when closing can, in turn, snap fit with notches made, one for each, on the triangular wings themselves by means of projections provided for on the lid itself.

[0013] In particular, every triangular wing has a notch at the side that contacts the lid of the container and, at the side that engages with the flat bottom, has a saw toothed projection that snap fit with a corresponding notch thereof. In this case the flat bottom can have two notches parallel to two of its opposite sides suitable for holding in a snap fit engagement the projections provided for on the triangular wings.

[0014] Also the lid has two projections, one for every side that fits together with the triangular wings, each of which snap fits in a notch present in these triangular wings.

[0015] In the preferred embodiment the container has the wall substantially at a 45° angle with respect to the flat bottom, whereas the triangular wings and the foldable lid are placed orthogonally to one another and to the flat bottom itself.

[0016] All the elements can be printed with coloured patterns.

[0017] The development of a container in corrugated cardboard for making a disposable container of substantially prismatic shape with triangular cross section for removing domestic animals droppings, according to the present invention, comprises a square wall to whose sides two by two opposite two triangular wings comprising each a notch and a projection, a flat bottom with two notches and a lid with two projections are respectively foldably connected.

[0018] Such projections made on the triangular wings are suitable for snap fitting the notches of the flat bottom, and the projections made on the lid can snap fit the notches made on the triangular wings.

Brief description of the drawings

[0019] Further features and the advantages of the disposable container for picking up domestic animals droppings, according to the present invention, will be made clearer with the following exemplifying description, but not limitative, of one of its embodiments with reference to attached drawings, wherein:

- figure 1 shows a top plan view of the development of a container used to make an embodiment of the container for droppings according to the present invention;
- figure 2 shows a perspective view of the development of a container of figure 1 folded like a wallet;
- figure 3 shows a perspective view of a container during its formation starting from the development of a container of figures 1 and 2;
- figures 4A and 4B show in two different perspective views a container for droppings according to the invention already assembled and ready for the use;
- figure 5 shows a perspective view of the container of figures 4A and 4B during the use;
- figure 6 shows a perspective view of the container of figures 4A, 4B and 5 closed after the use.

Description of a preferred embodiment

[0020] With reference to figure 1, a development of a container made of corrugated cardboard 1, according to the present invention, comprises a square wall 2 to whose sides two by two opposite two triangular wings 3 comprising each a notch 4 and a elongated projection 5, a flat bottom 6 with two elongated notches 7 and a lid 8 with two projections 9 are respectively foldably connected.

[0021] The elongated projections 5 made on the triangular wings 3 have saw toothed ends and can snap fit in the elongated notches 7 of the flat bottom 6, whereas the projections 9 made on the lid 8 can snap fit the notches 4 of the triangular wings 3.

[0022] With reference to figure 2, the development of a container 1 of figure 1, has been folded thus first folding square wall 2 with triangular wings 3, then lid 8 onto these and then flat bottom 6 onto lid 8. The whole is kept together by a glue drop 10 that can be put between the lid 8 and the flat bottom 6. In figure 2 the two notches 7 made on flat bottom 6, and through these, the two projections 9 made on lid 8 are shown.

[0023] As it can be seen from figure 2, in this position the development 1 is folded like a wallet and takes not much space with apparent advantages such as the carrying convenience.

[0024] With reference to figure 3, the development 1 has just been open, breaking the glue drop 10 of figure 2, and keeping the projections 5 and 9 still disconnected from the corresponding notches 7 and 4. For the flexibility of the corrugated cardboard, the development 1 is

arranged in the position shown with the triangular wings 3 slightly folded towards the inside.

[0025] Development 1 can be at first closed partially forming the container 20, by engaging in a snap fit projections 5 with notches 7. With reference to figures 4A and 4B, container 20 has been assembled and is ready for the use. The prismatic shape as well as the presence of lid 8 that acts as shovel before closing container 20 are to be noted.

[0026] With reference to figure 5 container 20 is shown during the use for removing and containing the droppings 11, indicated diagrammatically with a cylinder.

[0027] Container 20 is moved according to direction 13 towards the ground, then is pushed towards the droppings in direction 14 and then the droppings are pushed by lid 8, through the movement 15, into the container itself.

[0028] From figure 5 the easy use and the convenience of the lid that acts also as shovel are apparent. In use, the container can be gripped even with only one hand 16 bracing the two wings 3 among the thumb 17 and the remainder of the hand, and then pushing and rotating lid 8 with the forefinger 18 and possibly also with the middle finger 19 after that base 6 has been caused to scrap the ground for partially picking up droppings 11.

[0029] With reference to figure 6, container 20 has been closed with snap fit engagement of projections 9, extending from the lid 8, into notches 4 made each on one of the two triangular wings 3.

[0030] The complete closure of container 20 is possible owing to flexible projections 9, which, after bending, snap fit notches 4.

[0031] Container 20 can be then carried closed and disposed after being used. It has the following advantages:

- it is disposable and is made of not environmentally harmful material, easily dischargeable;
- it prevents the user from getting dirty and is ready for use, as well as many folded containers can be carried by the user;
- it can be sold and packed without taking much space but at the same time it can be easily assembled for the use;
- it is made of a single element;
- it can be closed with snap fit engagement of its parts, whereby once it is closed there is not risk that it opens again.

[0032] The foregoing description of specific embodiments will so fully reveal the invention according to the conceptual point of view, so that others, by applying current knowledge, will be able to modify and/or adapt for various applications such embodiments without further research and without departing from the invention, and it is therefore to be understood that such adaptations

and modifications will have to be considered as equivalent to the specific embodiments. The means and the materials to realise the different functions described herein could have a different nature without, for this reason, departing from the field of the invention. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Claims

1. Disposable container for picking up domestic animal droppings, in particular made of corrugated cardboard, characterised in that it comprises a flat bottom (6) substantially stiff from which at least a wall (2) foldably extends to which a plurality of wings (3, 8) are in turn foldably connected suitable for a snap fit engagement with one another and with said flat bottom (6) thus defining along with said wall (2) a closed space, at least one of said wings (8) acting as lid and closing in a snap fit engagement eventually onto the other wings (3) and being capable of pushing onto said base (6) said animal droppings (11) before definitively closing said space.
2. Container according to claim 1, characterised in that it has a substantially prismatic shape with triangular cross section, and in that said flat bottom (6) foldably extends from said wall (2) that is arranged obliquely, said wall having on the side opposite to said flat bottom (6) said foldable lid (8) and on the other two sides the other two wings (3) of triangular shape and to it foldably connected, said triangular wings (3) and said lid (8) can snap fit respectively in notches (7) made on said flat bottom, and in notches (4) made, one for each, in said triangular wings (3) by means of shaped projections (5,9) provided for respectively on said wings and on said lid.
3. Container according to claim 1, wherein said flat bottom has two elongated notches (7) parallel to two opposite sides thereof suitable for snap fit engagement with elongated projections (5) of two of said wings (3) that have not the function of lid.
4. Container according to claim 3, wherein every wing (3) that does not act as a lid has triangular shape and has a notch (4), at the side that is in contact with said lid (8), and a saw toothed projection (5), at the side that fits with said flat bottom (6), which can snap fit in the notches of the latter.
5. Container according to claim 1, wherein said lid has two projections (9) for every side that fits with said triangular wings, said projections snap fitting in the notches of said triangular wings.
6. Container according to claim 1, wherein said wall (2) is arranged substantially at a 45° angle with respect to said base (6).
7. Container according to claim 1, wherein said triangular wings and said foldable lid, orthogonal to one another and to said base, are printed with coloured patterns.
8. Development of a container made of corrugated cardboard and the like for making a disposable container of substantially prismatic shape for picking up domestic animals droppings, characterised in that it comprises: a four sided wall at the sides of which two wings opposite to each other, a flat bottom and a lid are foldably connected respectively, notches and projections being provided for snap fit engagement of said base, said lid and said flat bottom with one another.
9. Development of a container according to claim 8 characterised in that it comprises a square wall to whose two by two opposite sides two triangular wings comprising each a notch and a projection, a flat bottom with two notches and a lid with two projections are respectively foldably connected.
10. Development of a container made of corrugated cardboard according to claim 8, characterised in that it can be closed like a wallet by folding said wings, said lid and said base onto said wall.

Fig. 1

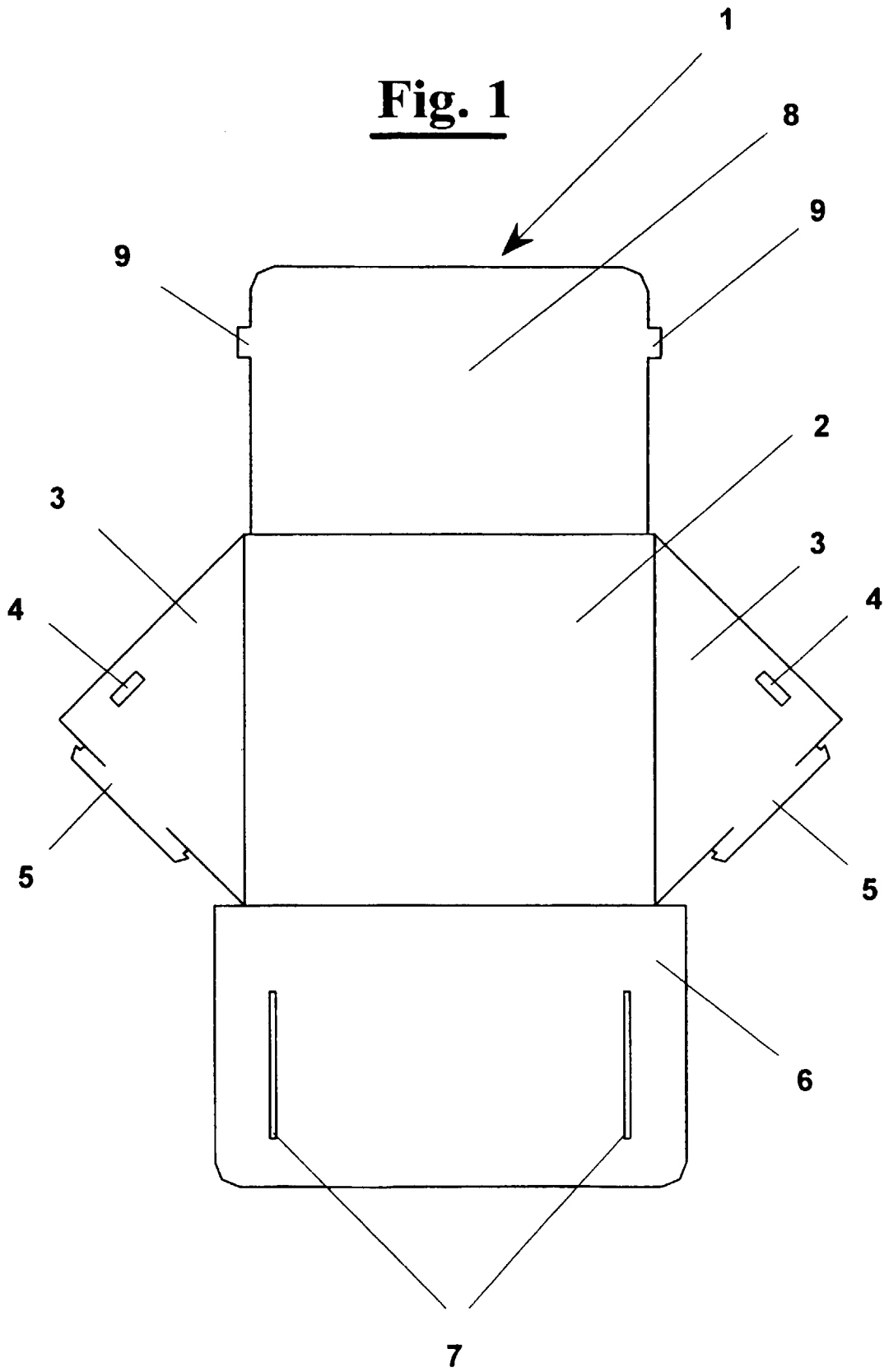


Fig. 2

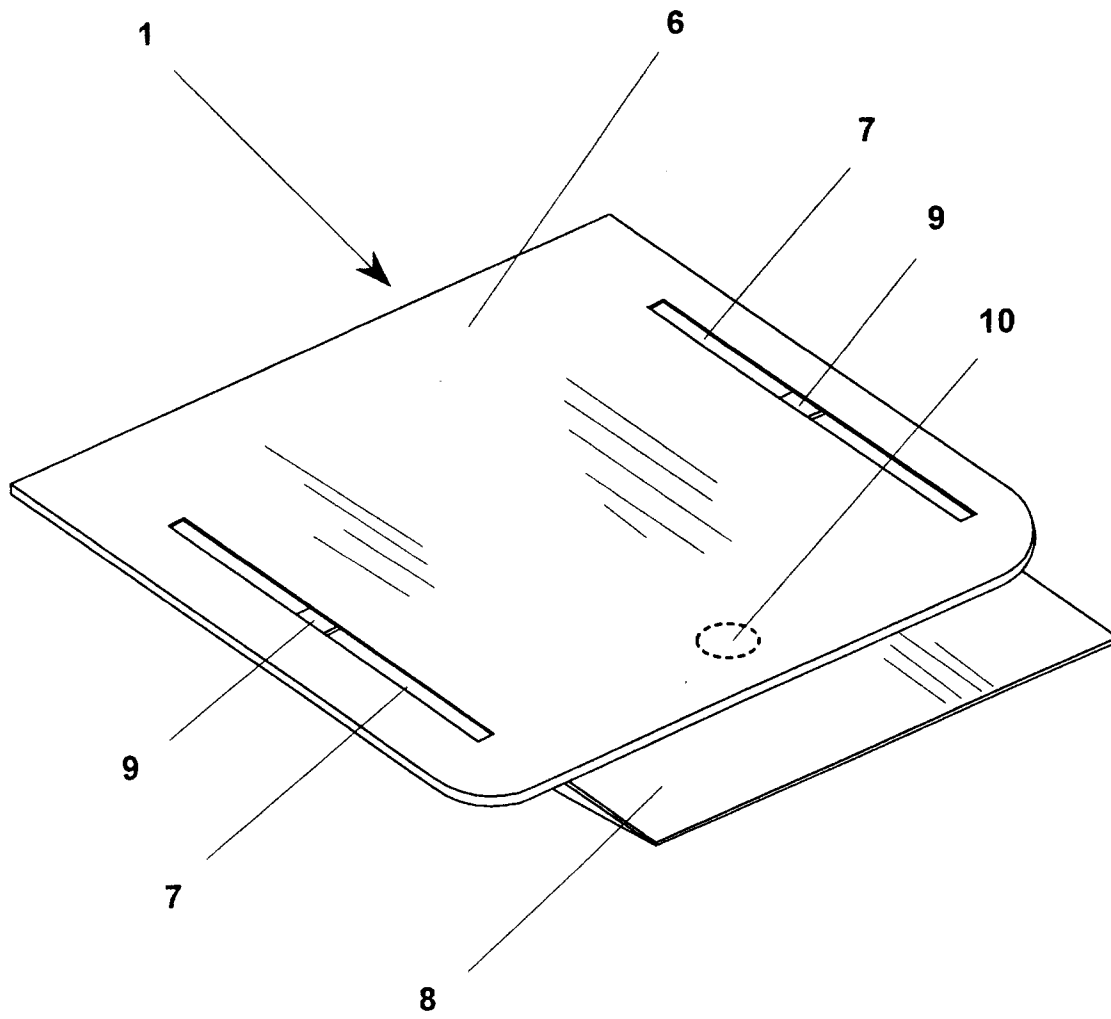


Fig. 3

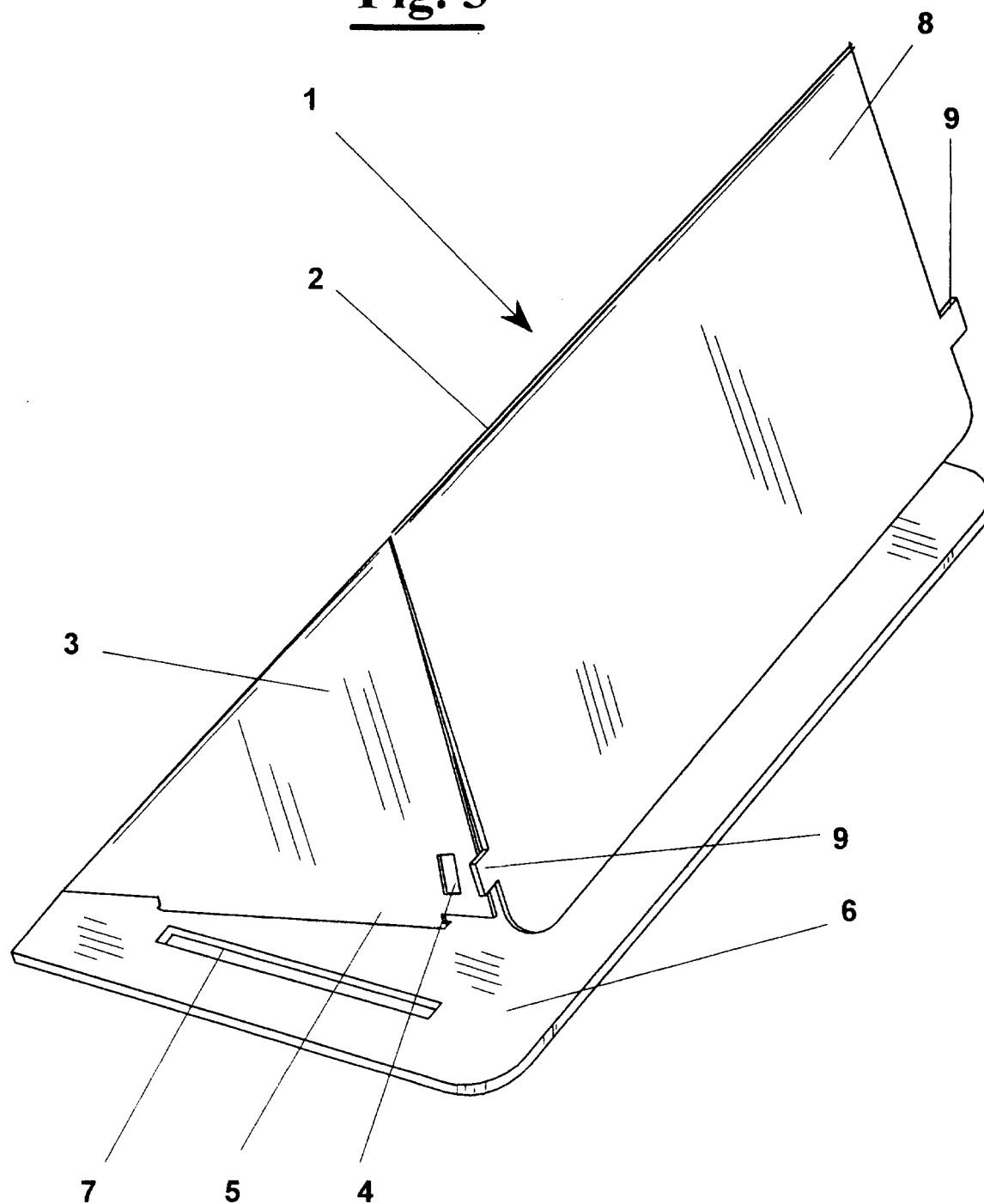


Fig. 4A

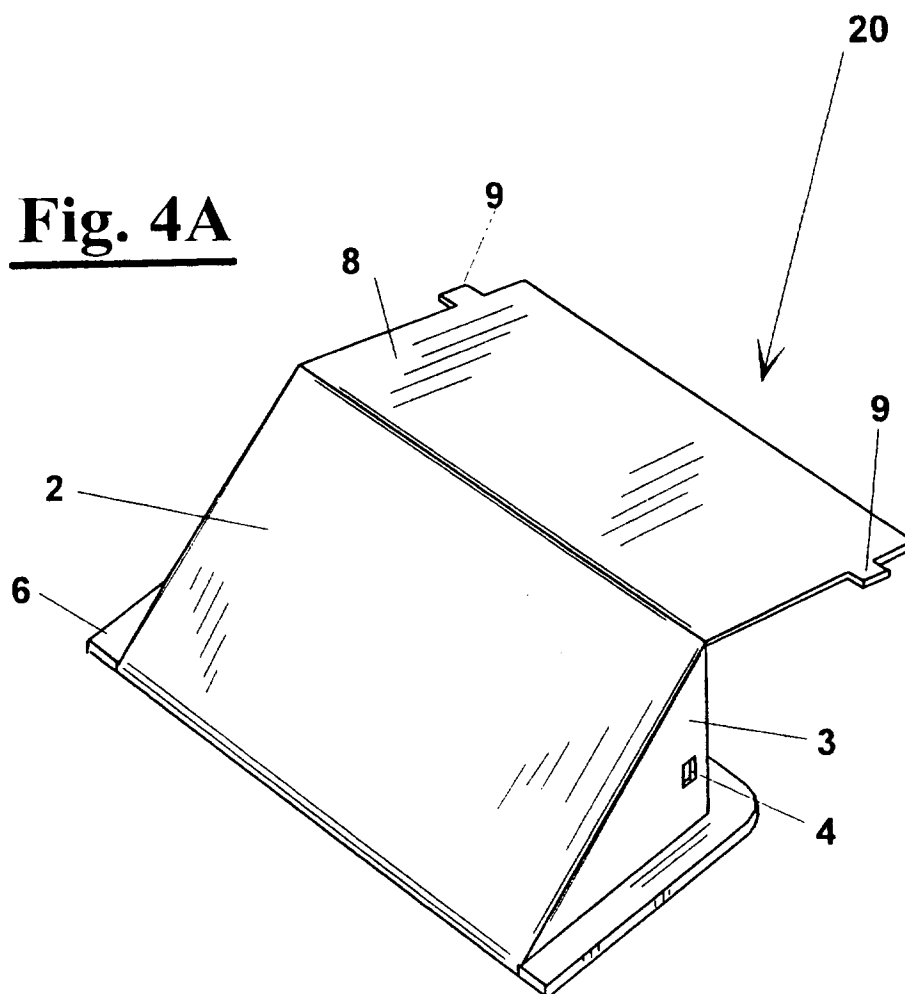


Fig. 4B

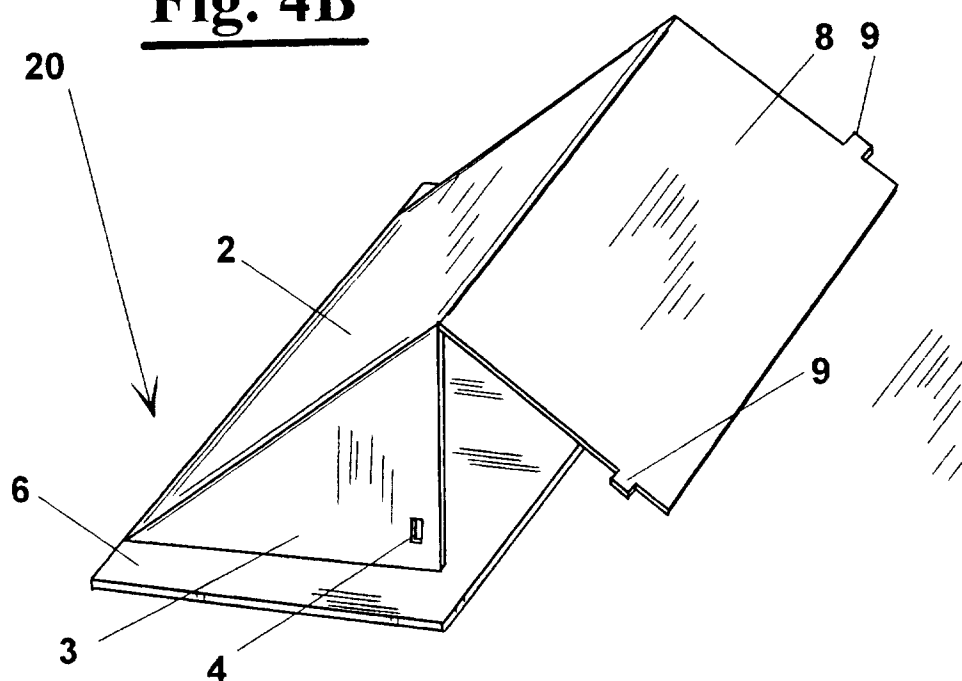


Fig. 5

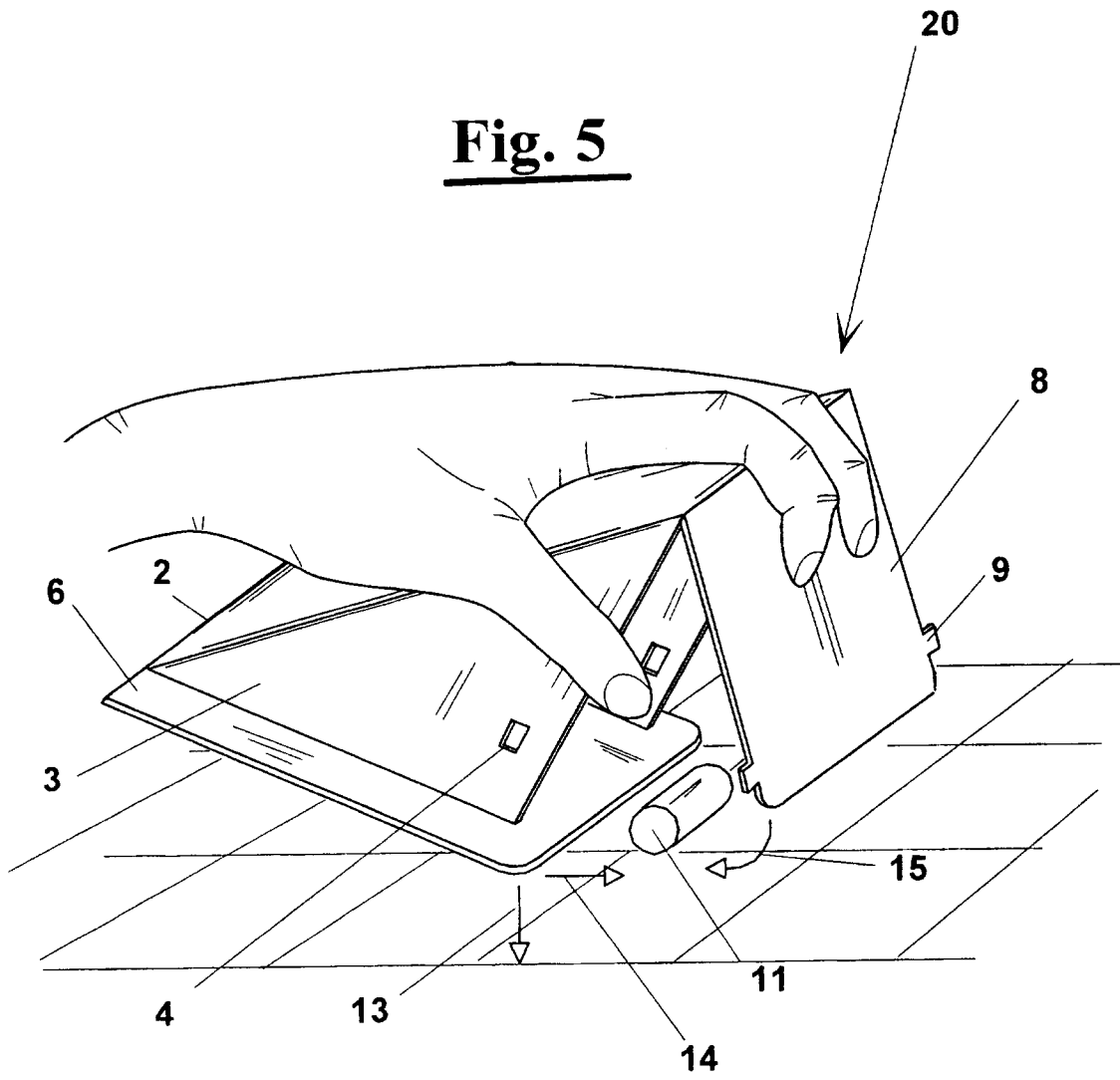
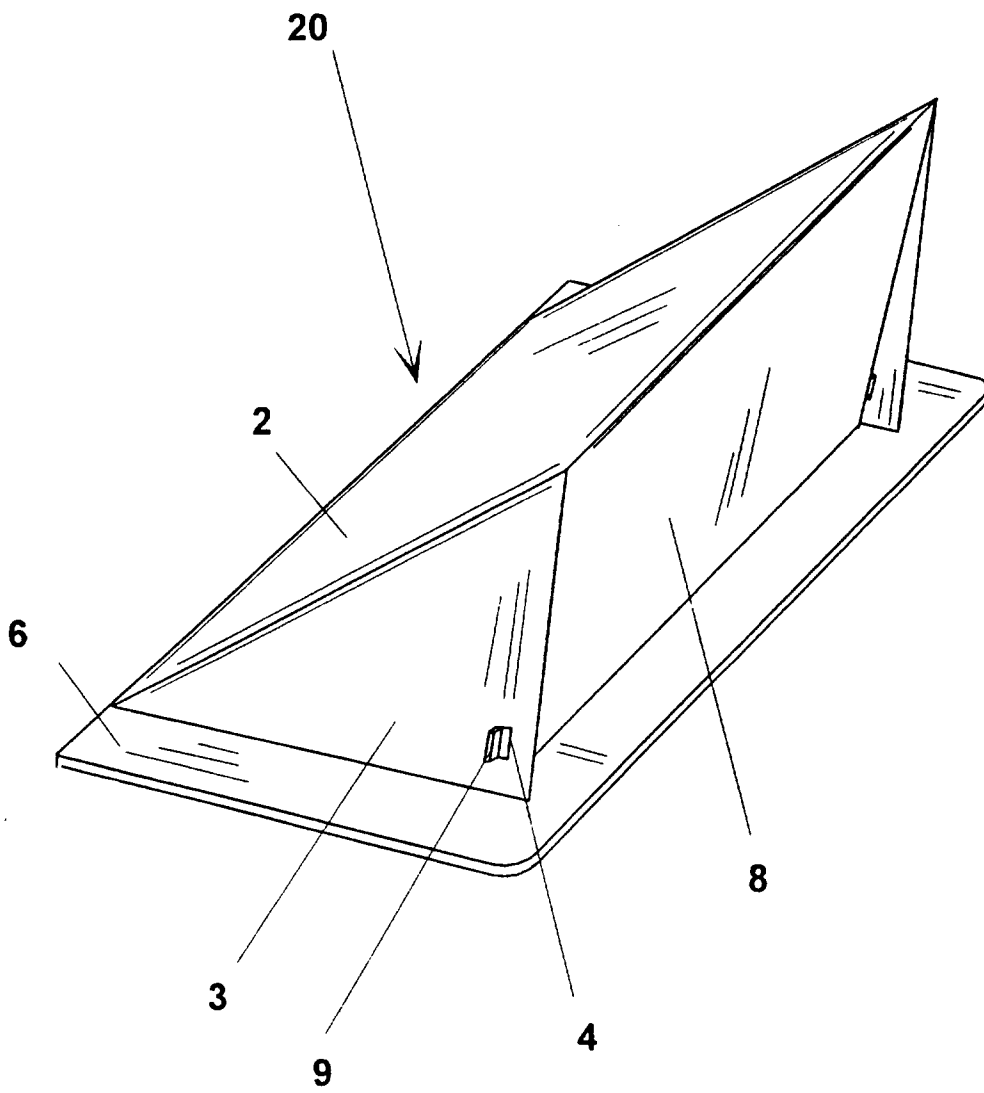


Fig. 6





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 20 1453

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	FR 2 699 568 A (PILORGE PHILIPPE) 24 June 1994	8,10	E01H1/12
A	* the whole document * ---	1-3,9	
A	FR 2 647 825 A (BOGEN PAUL) 7 December 1990 * the whole document * ---	1,2,6,8	
A	GB 2 217 974 A (WHITE THOMAS;GOLDING TIMOTHY JOHN) 8 November 1989 * abstract; figures * ---	1-3,8	
A	DE 88 03 914 U (HAAS) 5 May 1988 * figures * -----	1,2,8	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			E01H B65D
Place of search		Date of completion of the search	Examiner
THE HAGUE		28 July 1998	Dijkstra, G
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)