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(54) Document holder

(57) The document holder, comprises:

- a cover structure (2), including a first cover (5) and a second cover (6), hinged together,
- a multi-ring mechanism (3), fixed to the cover structure (2) to hold the documents between the covers (5, 6),
- a closure frame (4) to releasably close the cover structure (2) by fastening the covers (5, 6) together, comprising a first (9) and a second (10) frame elements made out of one piece and hinged together by a weakening region (11), the first frame element (9) being fixed to the first cover (5), the second frame element (10) being provided with a catch means (15a) to catch the second cover (6) in a closed condition of the closure frame (4).

The closure frame (4) comprises:

- a hook (14) formed on the first frame element (9),
- a latch (17) formed on the second frame element (10) and cooperating with the hook means (14) to retain the frame elements (9, 10), thus keeping the closure frame (4) in closed condition
- a push member (20, 16a) formed on the second frame element (10) close to the latch (17) to disengage the hook (14) from the latch (17).

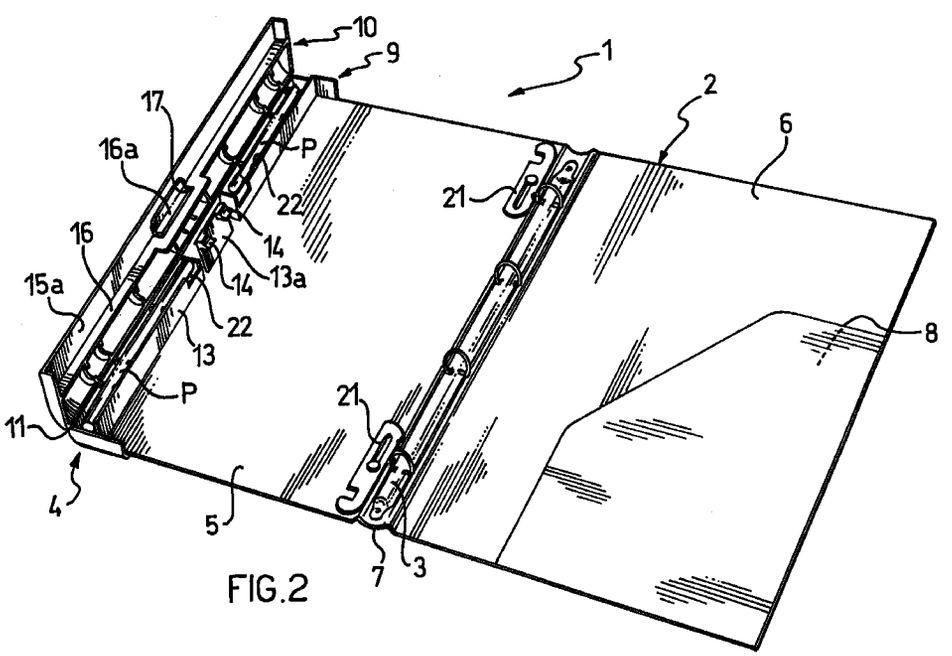

FIG.2

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Description

The present invention relates to a document holder, particularly a holder for documents provided with holes to be collected by a multi-ring mechanism.

Multi-ring document holder are very much used in office operation. They may be of many different shapes according to the main use and to the fantasy of the designer.

A particular use is that of providing a safe transport case for documents (e.g. slides or transparencies), which case might also be useful for storing the documents in a conventional suspension filing system.

For such use, the case should be enough small to be housed in a bag, as light as possible not to add undue weight to be carried, enough strong and protective to effectively protect documents which are rather delicate (such as transparencies) during transportation, and as easy as possible to operate. Moreover, the holder should also be of easy and simple manufacture, in order to be sold at a reasonable price. Preferably, the holder should be capable of being suspended in a conventional filing system.

Therefore, the present invention relates to a document holder, comprising:

- a cover structure, including a first cover and a second cover, hinged together,
- a multi-ring mechanism, fixed to the cover structure to hold the documents between the covers,
- a closure frame to releasably close the cover structure by fastening the covers together, comprising a first and a second frame elements made out of one piece and hinged together by a weakening region, the first frame element being fixed to the first cover, the second frame element being provided with a catch means to catch the second cover in a closed condition of the closure frame,
  characterized by the fact that the closure frame comprises:
- a hook means on the first frame element,
- a latch means on the second frame element and cooperating with the hook means to retain the frame elements, thus keeping the closure frame in closed condition
- a push means on the second frame element close to the latch means to disengage the hook means from the latch means.

This document holder is of particularly simple manufacture, due to the one-piece closure frame. Strength of the holder is ensured both by the cover structure and by the closure frame. Once open, the holder allows very easy access to the documents, thanks to the fact that the two covers are hinged each other.

Preferably, the closure frame comprises:

- a first rigid main wall in the first frame element, extending in the same direction as the first cover and secured thereto,
- an elastically bendable first transverse wall formed in the first frame element in a direction substantially perpendicular to the first rigid main wall and integral therewith,
- a second rigid main wall in the second frame element, extending in a direction parallel to the first rigid main wall when the closure frame is in closed condition,
- a second transverse wall formed in the second frame element in a direction substantially perpendicular to the second rigid main wall and integral therewith, parallel and adjacent to the first transverse wall when the closure frame is in closed condition,

  the hook means comprises at least a hook formed on the first transverse wall,

  and the latch means comprises an opening formed in the second transverse wall, in engagement with the hook when the closure frame is in closed condition.

Locking of the two frame elements can be easily achieved by moving the second frame element toward the first one, thus causing snap engagement of the hook in the opening. Disengagement can be equally easily achieved by acting onto the push means, thus shifting the hook out of the opening.

More preferably: the second frame element comprises a cut, extending in both the second rigid main wall and in the second transverse wall; in the second transverse wall, the cut defines the opening; in the second rigid main wall, the cut extends along a line closed at opposite ends of a bending segment; the bending segment is parallel to the second transverse wall and at a distance therefrom; the push means comprises portions of the second rigid main wall and of the second transverse wall surrounded by the cut and is flexible around the bending segment.

This is a simple way of obtaining the one-piece structure for the closure frame.

Advantageously, the cover structure is provided with a pair of retractable suspenders, to suspend the document holder to rails of a suspension filing system. Preferably, the suspenders are placed close to the multi-ring mechanism, to have the single documents suspended from their holes and not resting thereon, while the holder is suspended.

Further features and advantages will become apparent from the following description of a preferred embodyment of a document holder according to the invention. In the drawings:

Figure 1 is a perspective view of a document holder according to the invention, with the cover structure in closed condition.

Figure 2 is a perspective view of the document holder of figure 1, with the cover structure in open condition.

Figure 3 is an enlarged scale perspective view of a detail of the document holder of figure 2.

Figures 4, 5 and 6 are sectional views of the closure frame of the document holder of figure 1, in three different operating conditions.

Figure 7 is a perspective view of the document holder of figure 1, suspended from rails of a suspension filing system.

A document holder 1 comprises a cover structure 2, a multi ring mechanism 3 and a closure frame 4.

The cover structure 2 includes two covers, a first cover 5 and a second cover 6, hinged together by means of a back 7. Preferably, as in the example shown, the two covers 5 and 6 and the back 7 are conventionally made with three sections of stiff cardboard lined by a same deformable plastic sheeting. Hinging is ensured by the flexibility of the plastic sheeting between the cardboard sections.

The covers 5 and/or 6 may be provided with a pocket 8, suitable to insert some sheets of papers.

The multi-ring mechanism 3, known per se, may have any suitable number of rings placed at any distance one from the others, and any suitable opening-locking operation, according to the different standards. In the example, a four-ring mechanism is shown, of the type in which opening and closing are effected by acting directly on the rings. Details of the ring mechanism 3 are neither shown nor described, since the mechanism is per se known.

The multi-ring mechanism 3 is fixed (by rivets or the like) to the back 7 of the cover structure 2. In a substantially similar way, the mechanism 3 could be fixed to one of the covers 5 or 6, either close to the back 7 or remote from it.

The closure frame 4 is an elongate, one-piece, plastic structure fixed to the first cover 5 and capable of catching the second cover 6. The closure frame 4 comprises two frame elements, a first frame element 9 and a second frame element 10, which are hinged together along a flexible weakening region 11 formed between them in the one-piece structure of the closure frame 4.

The first frame element 9 comprises a first rigid main wall 12, extending in the same direction as the first cover 5 and secured thereto by any suitable means (rivets, hot welding, gluing), and a first transverse wall 13 extending in a direction substantially perpendicular to the first rigid main wall 12. The wall 13 is elastically bendable, at least partially (in a central portion 13a in the example shown), and is provided with a hook means, which includes a pair of hooks 14 in the shown example.

The second frame element 10 comprises a second rigid main wall 15, extending in a direction parallel to the first rigid main wall 12 when the closure frame 4 is in closed condition (figures 1, 4 and 7), and a second transverse wall 16 extending in a direction substantially perpendicular to the second rigid main wall 15. The wall 15 includes an edge portion 15a, which constitutes a catch means to catch the second cover 6. The wall 16 is provided with a latch means, which includes an opening 17 in the shown example.

The second frame element 10 comprises a cut 18, extending both in the second rigid main wall 15 and in the second transverse wall 16. In the second transverse wall 16, the cut 18 defines the opening 17 and a portion 16a of the second transverse wall 16 inside such opening. In the second rigid main wall 15, the cut 18 is drawn along a line which has substantially a hammer shape and ends - at the base of the hammer - at opposite ends of a bending segment 19, which is parallel to the second transverse wall 16, at a distance therefrom. The cut 18 thus defines or surrounds a button portion 20 of the second rigid main wall 15.

The button portion 20 of the second rigid main wall 15 and the portion 16a of the second transverse wall 16 constitutes a push means which - as will be explained below - is intended to disengage the hooks 14 from the opening 17, flexing about the bending segment 19.

All the parts (numbered 9 to 20, including 13a, 15a and 16a) of the closure frame 4 are made out of a one-piece body of plastic material.

The document holder 1 can be provided with a pair of retractable suspenders 21, to suspend the document holder 1 to rails of a conventional suspension filing system (not shown). The suspenders 21 are fixed to the cover structure 2, preferably close to the multi-ring mechanism 3, to have the single documents suspended from their holes and not resting thereon, while the document holder 1 is suspended.

Advantageously, two housings 22 may be provided inside the closure frame 4, adjacent to the transverse walls 13 and 16. These housings 22 can protect a couple of pens or board pointers P.

Operation of the document holder 1, and particularly of its closure frame 4, is described in the following.

In closed condition (figures 1 and 4), the two covers 5 and 6 are folded one onto the other; the second cover 6 is catched by the edge portion 15a of the second rigid main wall 15 of the second frame element 10. The whole document holder 1 looks like a flat case, inside which documents are well protected and can be safely transported.

Should it be necessary to store the document holder in a filing system, the two retractable suspenders 21 can be extracted to suspend the document holder 1 to a pair of conventional rails (figure 7).

In order to open the document holder 1, it is sufficient to press slightly onto the button portion 20. Pressure thereon cause tilting of the portion 20 itself about the bending segment 19, so that the portion 16a of the second transverse wall 16 pushes against the hooks 14, forcing them out of the engagement with the opening 17 (figure 5).

Once the hooks 14 and the opening 17 are disengaged, the second frame element 10 of the closure frame

4 can be tilted with respect to the first frame element 9, thus releasing the second cover 6 (figures 3 and 6).

The cover structure 2 can thus be opened completely (figure 2), allowing an easy access to the documents inside.

The same operations in an inverse order can be performed to close the document holder. In brief, the second cover 6 is bent over the first cover 5, then the second frame element 10 is tilted toward the first frame element 9 and pressed against it: the hooks 14 snap engage into the opening 17, thus retaining the closure frame 4 in closed condition.

Claims

1. Document holder, comprising:

   - a cover structure (2), including a first cover (5) and a second cover (6), hinged together,
   - a multi-ring mechanism (3), fixed to the cover structure (2) to hold the documents between the covers (5, 6),
   - a closure frame (4) to releasably close the cover structure (2) by fastening the covers (5, 6) together, comprising a first (9) and a second (10) frame elements made out of one piece and hinged together by a weakening region (11), the first frame element (9) being fixed to the first cover (5), the second frame element (10) being provided with a catch means (15a) to catch the second cover (6) in a closed condition of the closure frame (4),

     characterized by the fact that the closure frame (4) comprises:

   - a hook means (14) on the first frame element (9),
   - a latch means (17) on the second frame element (10) and cooperating with the hook means (14) to retain the frame elements (9, 10), thus keeping the closure frame (4) in closed condition
   - a push means (20, 16a) on the second frame element (10) close to the latch means (17) to disengage the hook means (14) from the latch means (17).

2. Document holder according to claim 1, wherein the closure frame (4) comprises:

   - a first rigid main wall (12) in the first frame element (9), extending in the same direction as the first cover (5) and secured thereto,
   - an elastically bendable first transverse wall (13, 13a) formed in the first frame element (9) in a direction substantially perpendicular to the first rigid main wall (12) and integral therewith,
   - a second rigid main wall (15) in the second frame element (10), extending in a direction parallel to the first rigid main wall (12) when the closure frame (4) is in closed condition,
   - a second transverse wall (16) formed in the second frame element (10) in a direction substantially perpendicular to the second rigid main wall (15) and integral therewith, parallel and adjacent to the first transverse wall (13, 13a) when the closure frame (4) is in closed condition,

     wherein the hook means comprises at least a hook (14) formed on the first transverse wall (13a),

     and wherein the latch means comprises an opening (17) formed in the second transverse wall (16), in engagement with the hook (14) when the closure frame (4) is in closed condition.

3. Document holder according to claim 2, wherein:

   - the second frame element (10) comprises a cut (18), extending in both the second rigid main wall (15) and in the second transverse wall (16),
   - in the second transverse wall (16), the cut (18) defines the opening (17),
   - in the second rigid main wall (15), the cut (18) extends along a line closed at opposite ends of a bending segment (19),
   - the bending segment (19) is parallel to the second transverse wall (16) and at a distance therefrom,
   - the push means comprises portions (20, 16a) of the second rigid main wall (15) and of the second transverse wall (16) surrounded by the cut (18) and is flexible around the bending segment (19).

4. Document holder according to claim 1, wherein the cover structure (4) is provided with a pair of retractable suspenders (21), to suspend the document holder (1) to rails of a suspension filing system.

5. Document holder according to claim 4, wherein the suspenders (21) are placed close to the multi-ring mechanism (3).

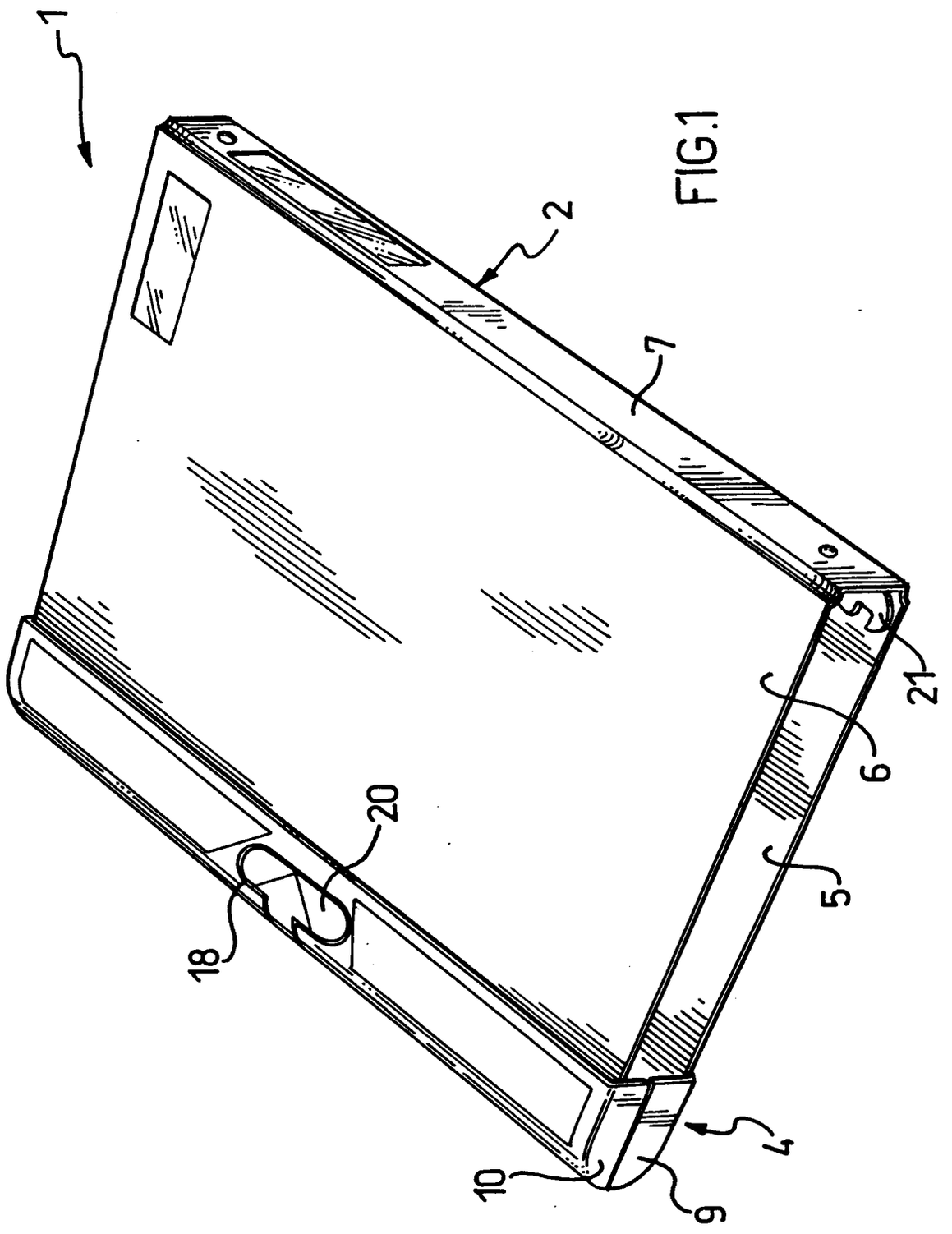

FIG.1

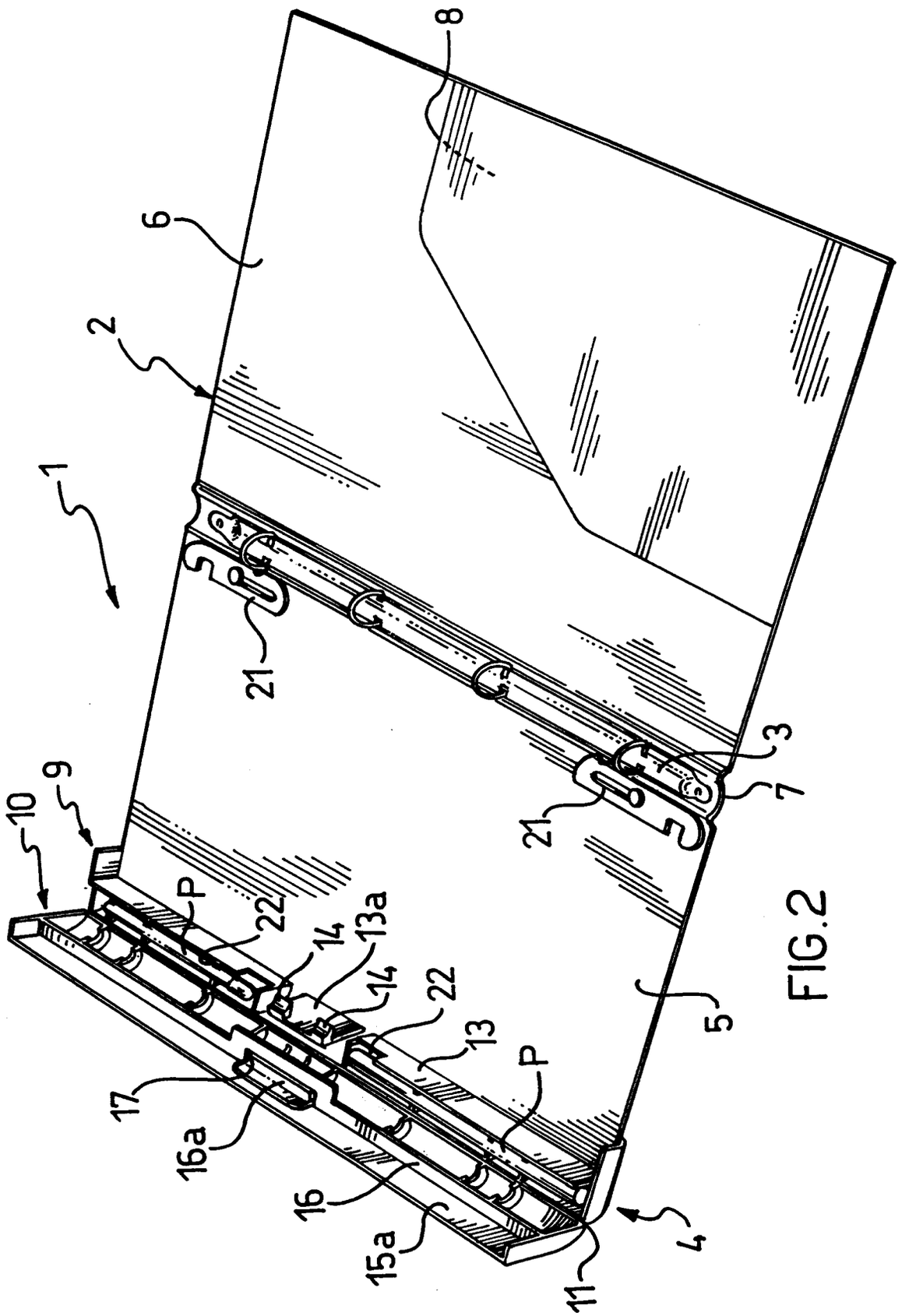

FIG.2

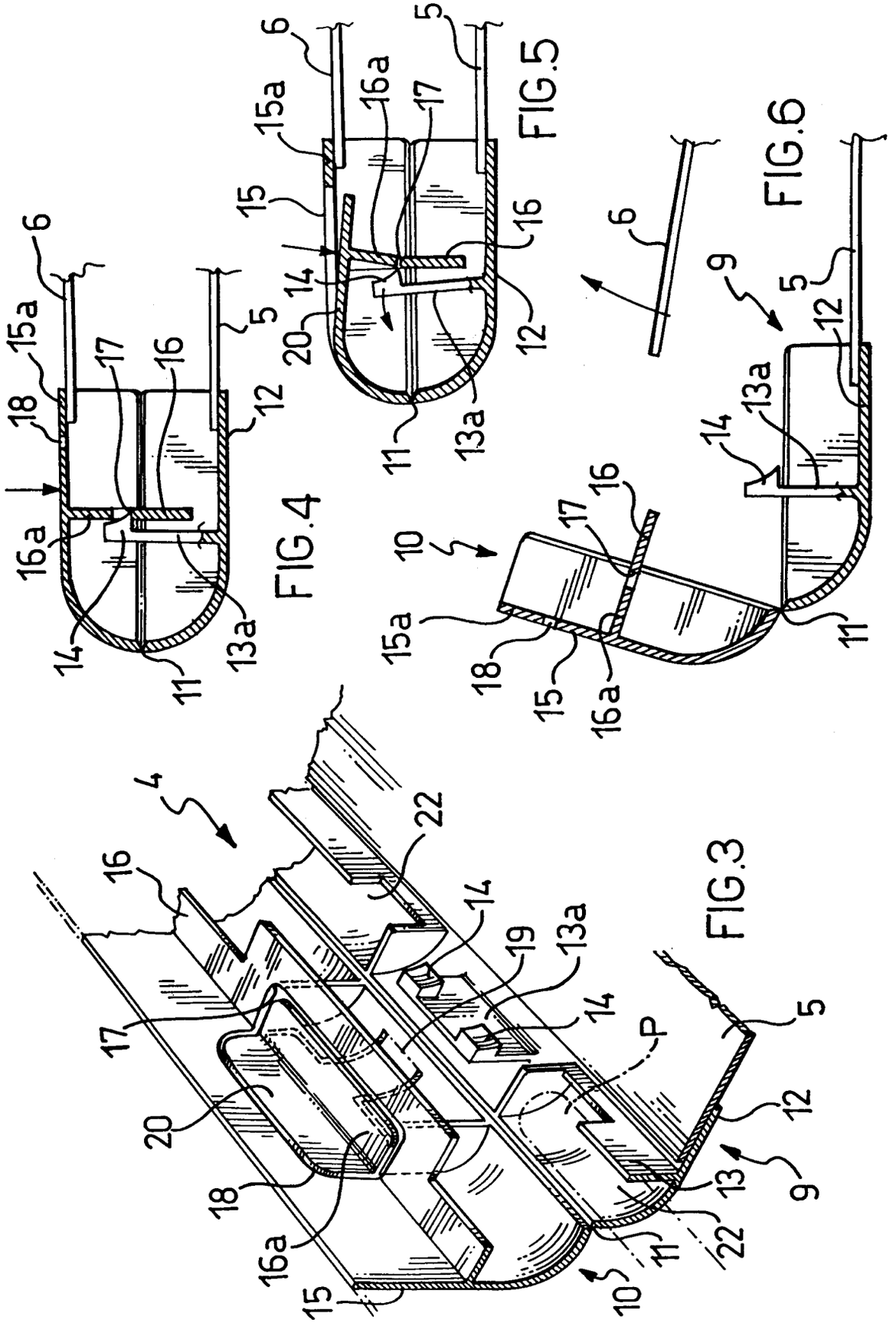
FIG.4
FIG.5
FIG.6
FIG.3

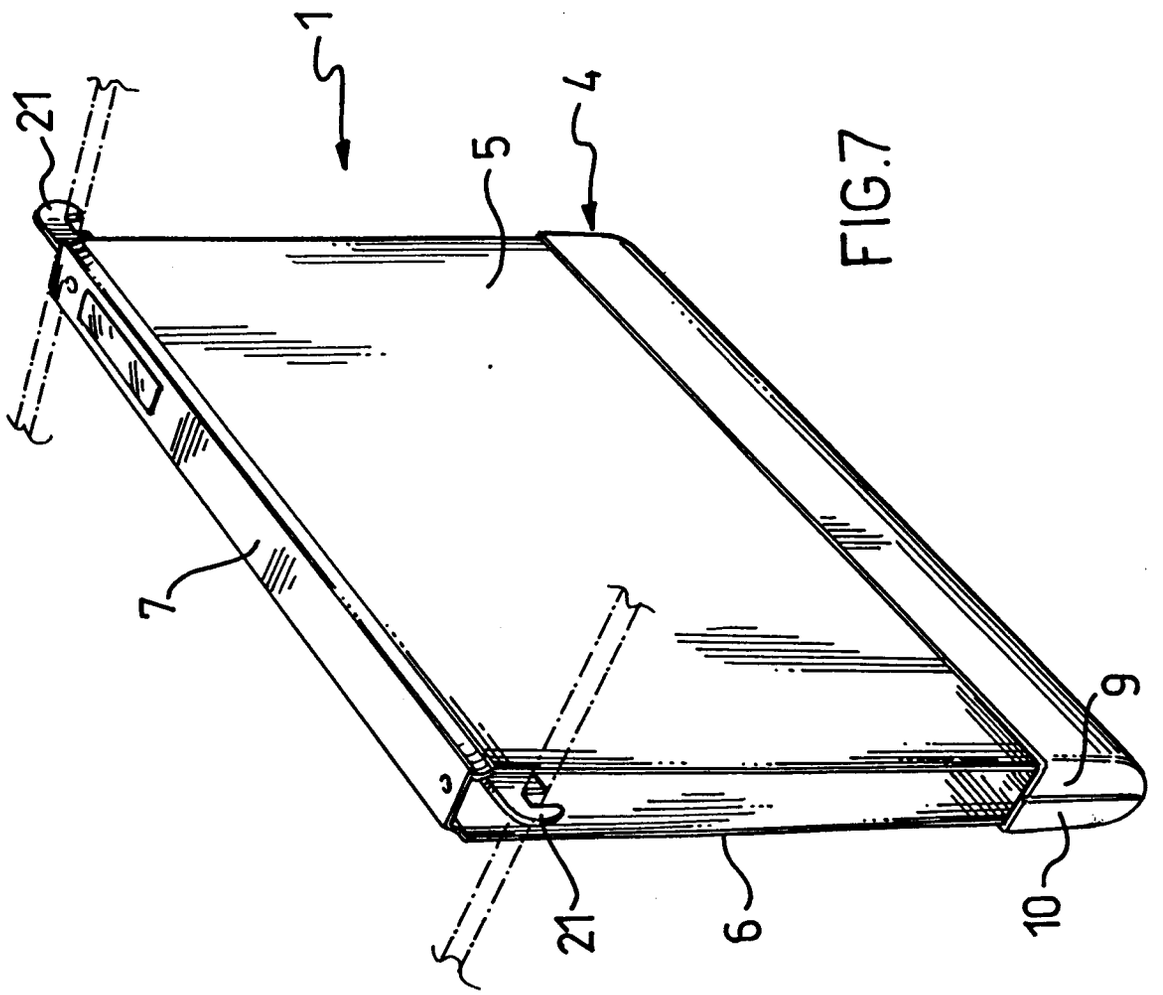

FIG.7

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EUROPEAN SEARCH REPORT

Application Number
EP 94 11 1441

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)
Y	EP-A-0 375 925 (DATOX ORGANISATION D. SCHWEINSBERG) * the whole document *	1-5	B42F13/00
Y	US-A-4 344 646 (MICHEL) * the whole document *	1-5	
A	EP-A-0 480 532 (OFFICE DATA EUROPE (ODE)) * the whole document *	1	
A	US-A-5 154 527 (BLESSING) * the whole document *	4	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

B42F
B42D
A45C
A45D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	30 November 1994	Evans, A

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