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(54) **Corner element in particular for drawers holding tools or similar objects**

(57) A corner element (10) in particular for drawers holding tools or similar objects, substantially comprises a shaped element comprising two adjacent sectors (11,

12), or flaps, positioned at 90° to each other which are joined by a substantially flat bottom part (13) which is aligned with the upper surface of the drawer cover.

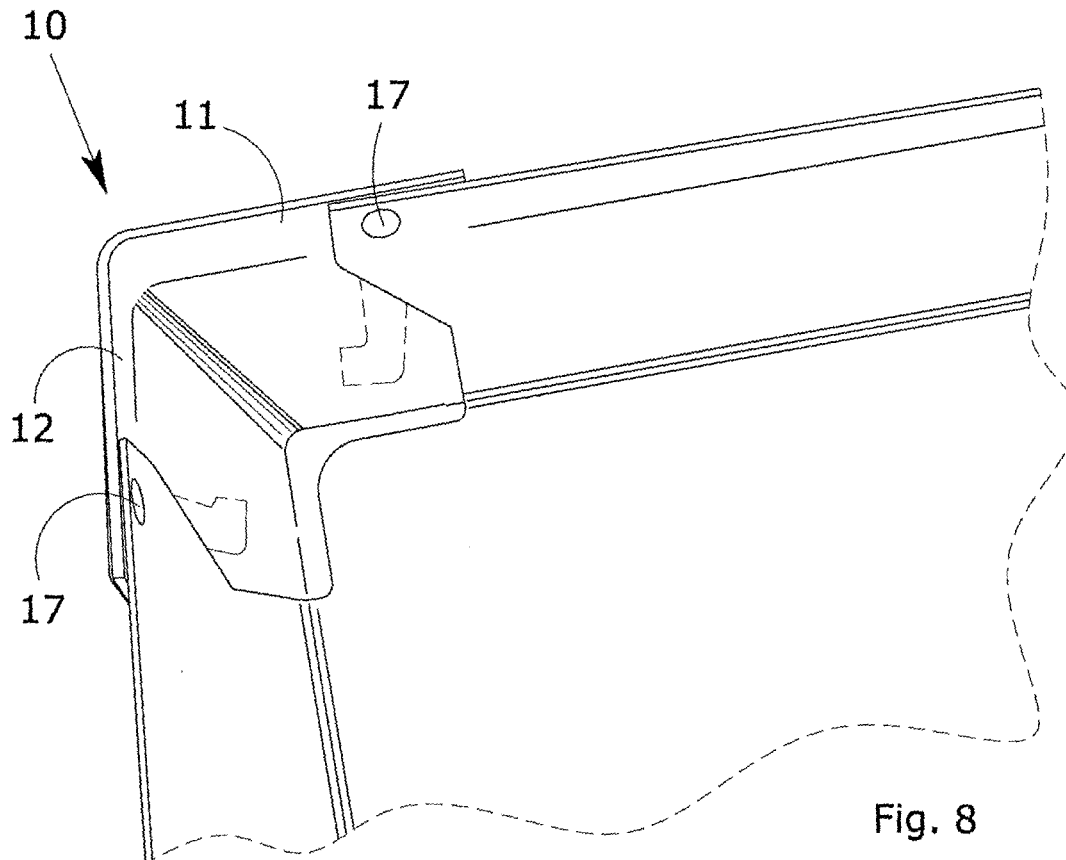


Fig. 8

Description

TECHNICAL FIELD

[0001] The present invention relates to a corner element in particular for drawers holding tools or similar objects.

[0002] In particular the present invention relates to a corner element **characterised in that** it is very simple to apply and can be manufactured at a very low cost of production.

[0003] The corner element according to the present invention comprises a body made from a plastic material, which has seats designed for positioning the elements on the suitably shaped corner parts of the container.

[0004] The present invention relates to the sector of industrial accessories and in particular to those applications in the sector for containers for containing objects, such as tools or similar, of the type applied for example to small industrial trucks and vans.

BACKGROUND ART

[0005] Known technology in the industrial sectors where tools are used include tool holding boxes designed to contain tools and to be installed, for example on small industrial trucks or vans used for customer service assistance or the management of wide range of activities.

[0006] In general these components are used on industrial vehicles and in particular refer to tool holding drawer units to be installed on the floor of industrial vehicles.

[0007] These drawer units comprise a body made from a rigid, usually metallic material where the upper part has a hinged cover closed with special locks.

[0008] Today, these solutions are widely used in industry and in some cases include the use of corner reinforcing elements usually made from moulded plastic material. In some cases these mouldings are very expensive because they are difficult to make and apply and in other cases do not provide the necessary protection.

[0009] In other cases the known protection elements are not securely attached to the drawer and can become easily detached with all the negative consequences which derive from this drawback.

DESCRIPTION OF THE INVENTION

[0010] The present invention provides a corner element which eliminates, or at least reduces, the shortcomings outlined above.

[0011] The present invention also provides a corner element which is easy to make, is very inexpensive to produce and is therefore suitable for distribution on a large scale.

[0012] In addition, the corner element according to the present invention is designed to provide the maximum security and reliability and thereby ensuring that it re-

mains in the best condition throughout its use.

[0013] These aims are achieved by a corner element according to the present invention, whose features are described in the main claim.

5 [0014] The dependent claims of the solution herein describe advantageous example embodiments of the invention.

[0015] The main advantages of this solution, in addition to those which derive from the simplicity of its construction, principally concern the fact that the corner element according to the invention is moulded from a high-resistance plastic material and has a shape which guarantees perfect positioning stability on the corner parts of the drawer.

10 [0016] In addition, using the corner element according to the present invention simplifies assembly and optimises the production of tool holder drawer units for installing on the floor of industrial vehicles or vehicles for similar uses.

20 [0017] The corner element substantially comprises a shaped element comprising two adjacent sectors at 90° to each other, the internal edge of which is made with tabs designed to be inserted into corresponding suitable seats made in the angles of the drawer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] Further features and advantages of the invention will become apparent from the description of an example embodiment which follows with reference to the annexed drawings, given purely by way of a non-limiting example, in which:

- Figure 1 shows a diagrammatic view of the entire corner element according to the present invention, showing the bottom and inside of the drawer;
- Figure 2 shows a plan view of the corner element;
- Figure 3 shows a perspective view of the corner element;
- Figure 4 shows a side view of the corner element according to the present invention;
- Figure 5 shows a side view of the corner element as seen from the opposite side of the previous figure;
- Figure 6 shows a diagrammatic view of the inside of the corner element;
- Figure 7 shows an axonometric perspective view of the inside of the corner element;
- Figures 8 to 13 show diagrammatic views of a further embodiment of the invention;
- Figures 14 and 15 show a diagrammatic view of the plate which is shaped to make the cover surface to which the corner elements according to the present invention will be applied.

DESCRIPTION OF ONE EMBODIMENT OF THE INVENTION

[0019] With reference to the annexed drawings, the

corner element according to the present invention is indicated in its entirety by the numeral 10 and substantially comprises a shaped element comprising two adjacent sectors 11 and 12, or flaps, positioned at 90° to each other which are joined by a substantially flat bottom part 13 which is aligned with the upper surface of the drawer cover.

[0020] Along the inside edge of the adjacent sectors 11 and 12 there are tabs 14 and 15 designed to be inserted into corresponding seats especially made on the corners of the drawer.

[0021] The figures from 4 to 7 show a central pin 16 designed to contain the walls of the cover of the tool drawer to be held by the corner elements.

[0022] Figure 7 also shows the fixing buttons 17 which engage with corresponding seats on the drawer.

[0023] Figure 1 shows that in order to enable the fitting of the corner element according to the present invention, the corner part of the drawer has a shaped notch to enable application of the corner element by inserting the tabs 14 into the notched edges of the drawer.

[0024] The figures from 8 to 13 show a further embodiment where the tabs 14 and 15 are eliminated and the fixing buttons 17 are improved and bevelled to enable perfect engagement with the shaped plate 18 forming the cover structure shown in the plan views in Figures 14 and 15.

[0025] This cover is formed by a plate 18 which is bent along its four parallel sides to form four sectors with open edges closed by the corner elements according to the invention.

[0026] Figure 15 shows the plate 18 comprising pairs of corner sectors 19 reinforced and provided with holes 20 designed to receive and hold the fixing buttons 17.

[0027] The plate is provided with a further hole 21 designed to receive and fix the central pin 16.

[0028] Figures 14 and 15 are diagrammatic views showing the plate 18 which is shaped to form the cover surface on which the corner elements 10 according to the present invention are applied.

[0029] The corner element described herein achieves all the aims and advantages of the invention as outlined above from the cost effectiveness of its production right through to its ease and security of application.

[0030] The invention as described above refers to a preferred embodiment. Naturally, while the principle of the invention remains the same, the details of construction and the embodiments may widely vary with respect to what has been described and illustrated purely by way of the example, without departing from the scope of the present invention.

Claims

1. A corner element (10) in particular for drawers holding tools or similar objects, **characterised in that** it substantially comprises a shaped element compris-

ing two adjacent sectors (11, 12), or flaps, positioned at 90° to each other which are joined by a substantially flat bottom part (13) which is aligned with the upper surface of the drawer cover.

2. The corner element (10) in particular for drawers holding tools or similar objects according to the previous claim, **characterised in that** it has a central pin (16) designed to contain the walls of the cover of the tool drawer to be held by the corner elements.

3. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** along the inside edge of the adjacent sectors (11, 12) there are tabs (14, 15) designed to be inserted into corresponding seats especially made on the corners of the drawer.

4. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** in order to enable the fitting of the corner element according to the present invention, the corner part of the drawer has a shaped notch to enable application of the corner element by inserting the tabs (14) into the notched edges of the drawer.

5. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** it comprises fixing buttons (17) which engage with corresponding seats on the drawer.

6. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** in a further embodiment the tabs (14, 15) are eliminated and the fixing buttons (17) are improved and bevelled to enable perfect engagement with the shaped plate (18) forming the cover structure.

7. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** the cover is formed by a plate (18) which is bent along its four parallel sides to form four sectors with open edges closed by the corner elements (10) according to the invention.

8. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** the plate (18) comprises pairs of corner sectors (19) reinforced and provided with holes (20) designed to receive and hold the fixing buttons (17).

9. The corner element (10) in particular for drawers

holding tools or similar objects according to one of the foregoing claims, **characterised in that** the plate is provided with a further hole (21) designed to receive and fix the central pin (16).

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10. The corner element (10) in particular for drawers holding tools or similar objects according to one of the foregoing claims, **characterised in that** the plate (18) is shaped to form the cover surface on which the corner elements (10) according to the present invention are applied.

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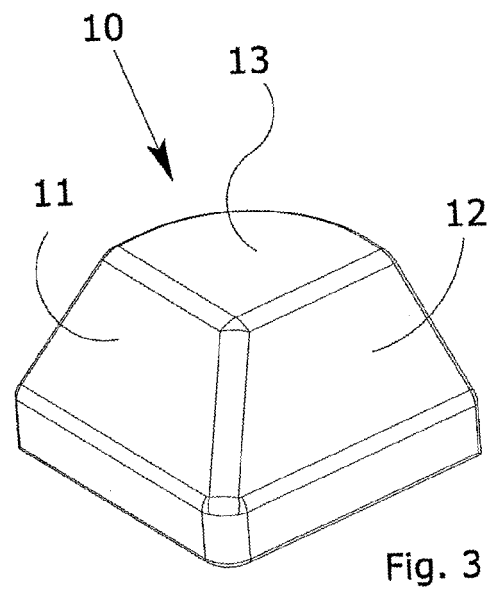
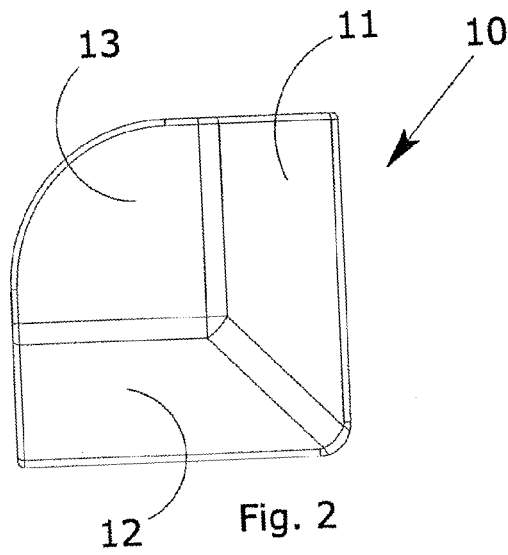
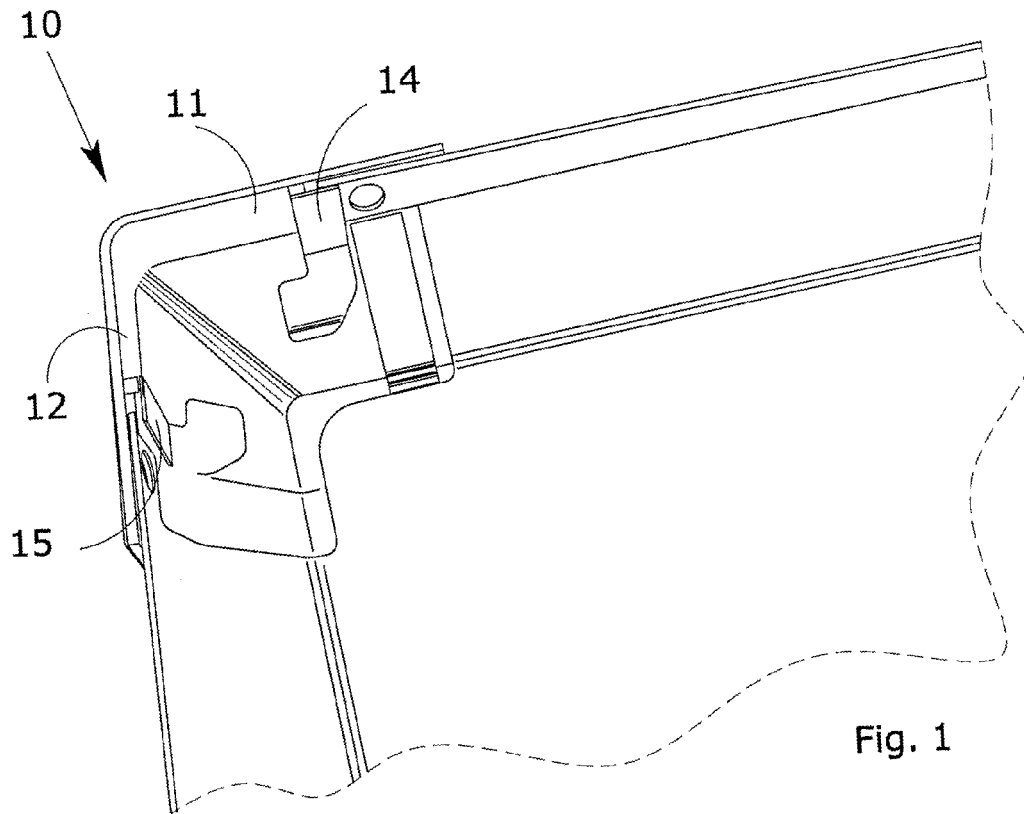
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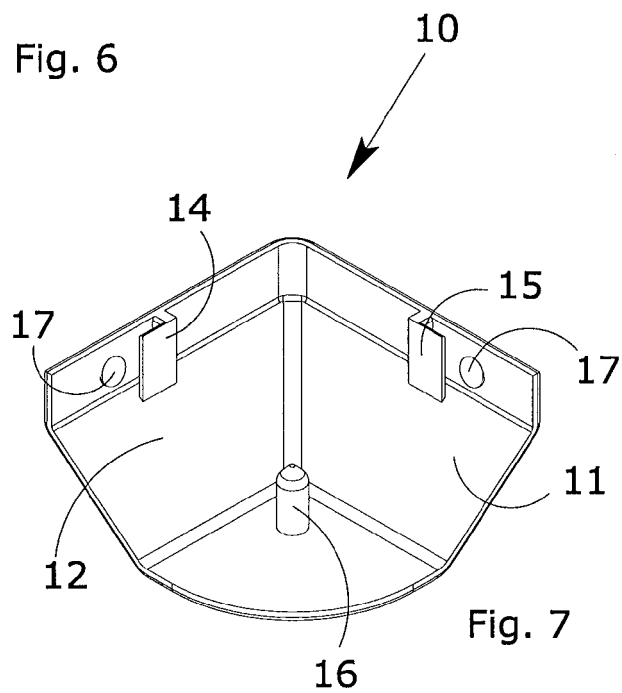
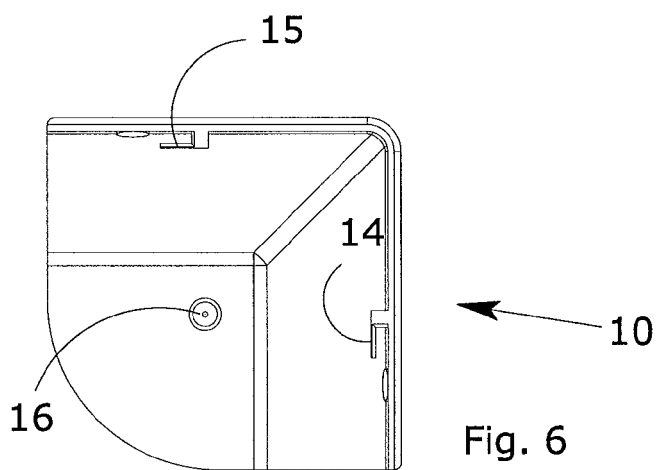
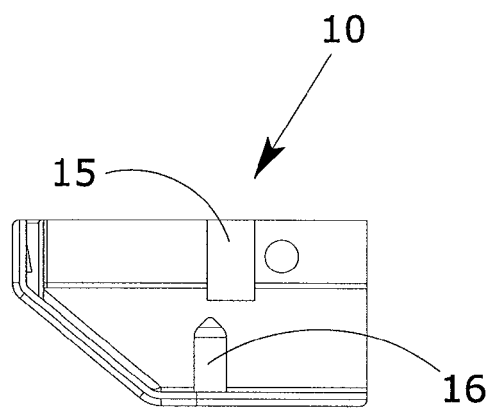
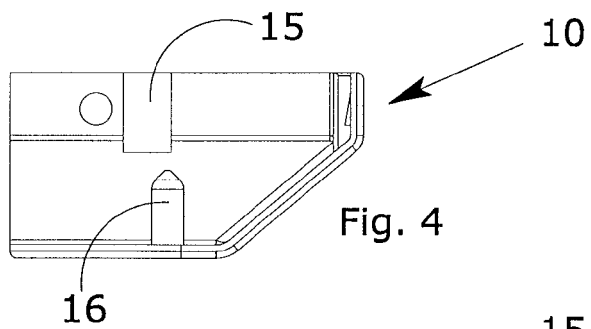
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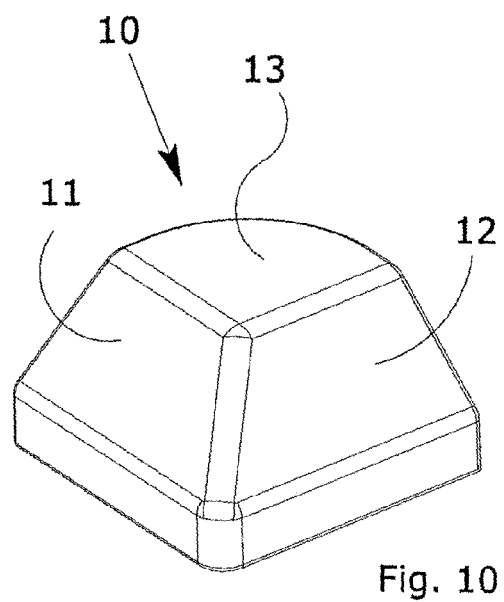
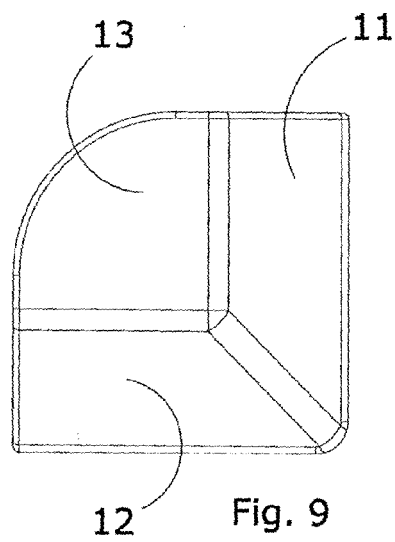
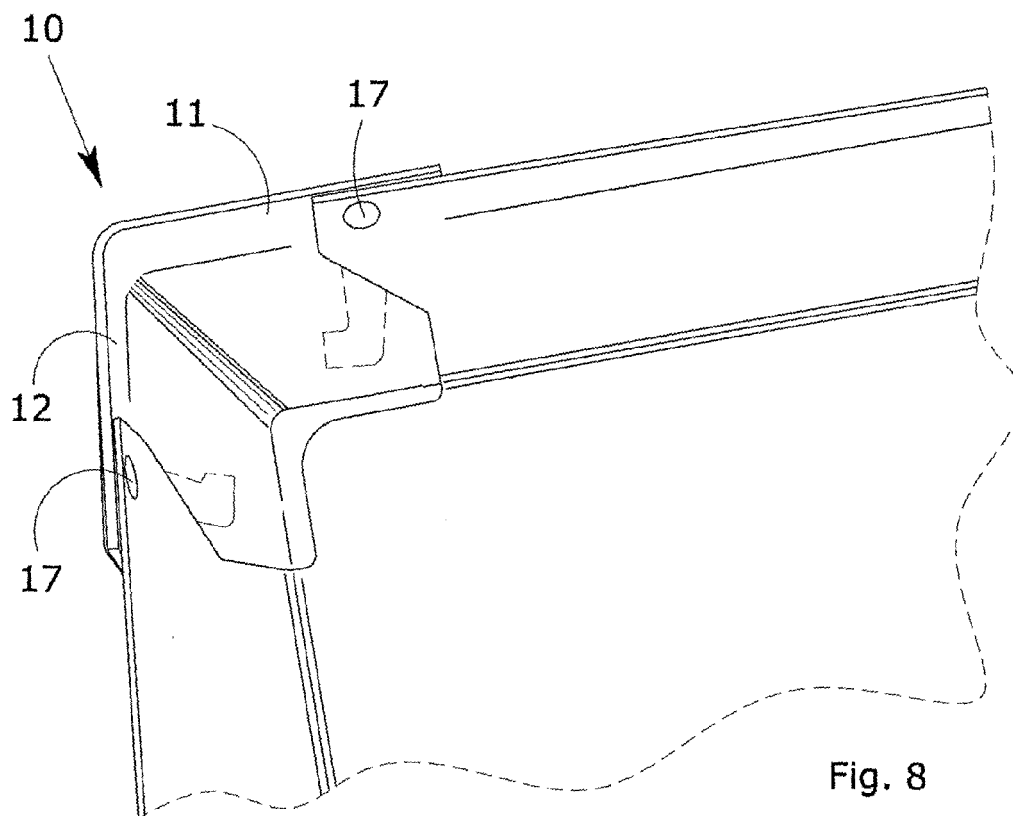
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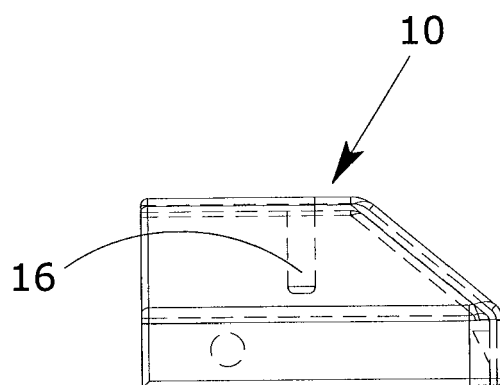


Fig. 11

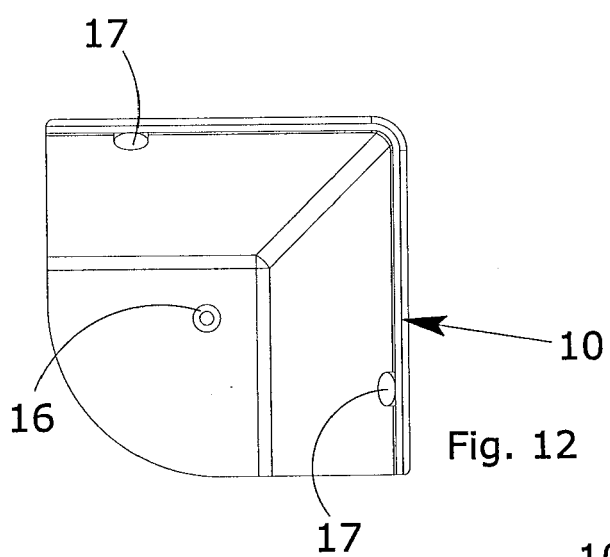


Fig. 12

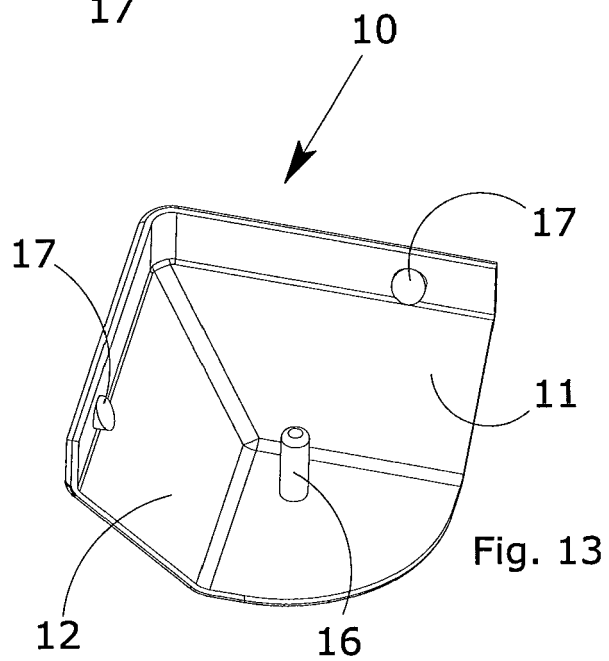


Fig. 13

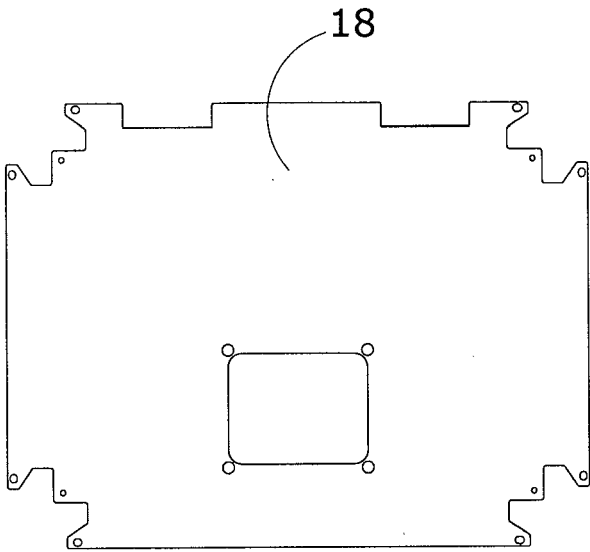


Fig. 14

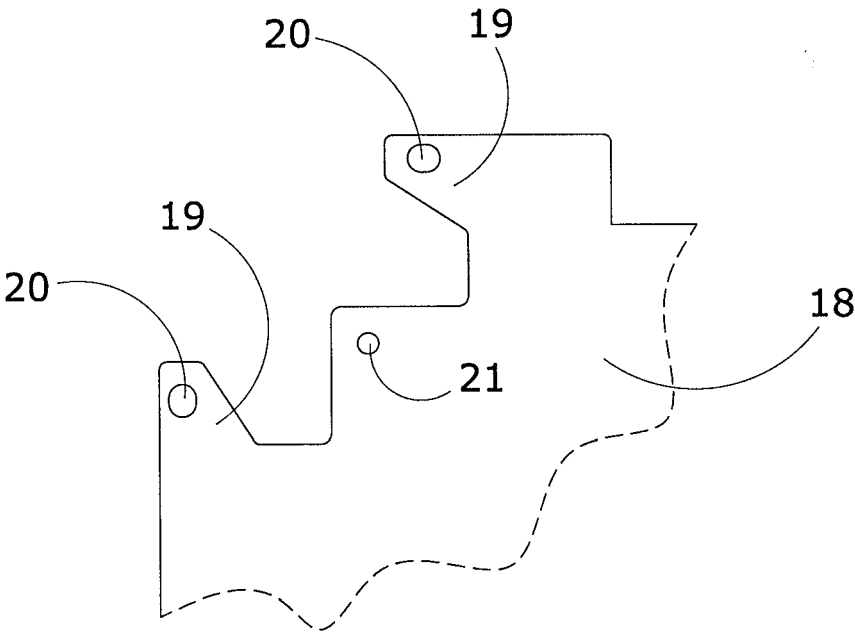


Fig. 15



EUROPEAN SEARCH REPORT

Application Number
EP 09 15 9606

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	US 4 278 196 A (FORD HAROLD H) 14 July 1981 (1981-07-14) * abstract * * column 2, line 33 - column 6, line 40 * * figures 1-11 *	1-5	INV. A47B88/00
X	GB 2 052 956 A (LB PLASTICS LTD) 4 February 1981 (1981-02-04) * abstract * * page 1 * * figures 1-6 *	1	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			A47B F16B
Place of search		Date of completion of the search	Examiner
Munich		26 August 2009	MacCormick, Duncan
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			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 15 9606

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
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26-08-2009

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