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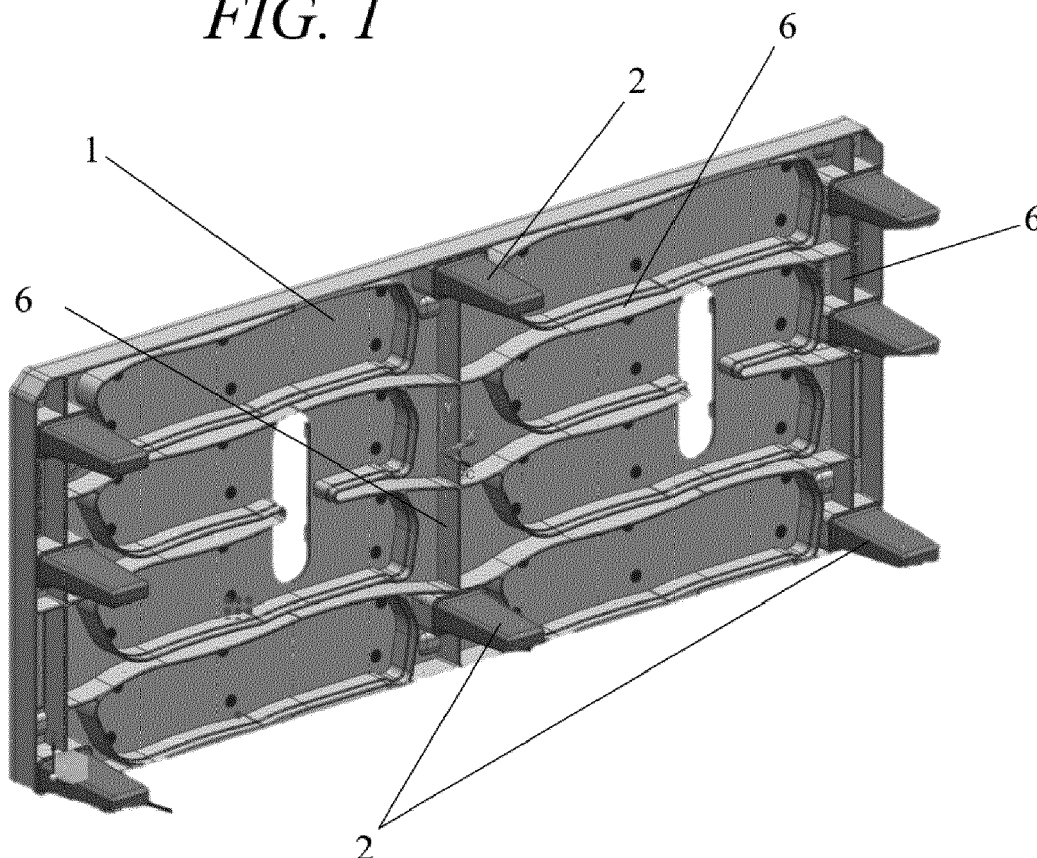
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(54) **STORAGE PLATFORM**

(57) The invention relates to a storage platform, comprising a board-like tray body (1) and a plurality of supporting legs (2) located on one of the faces of the tray body, the tray body and the plurality of legs being made of an injection-mouldable plastic material. Said platform

provides non-releasable coupling means between each of the supporting legs and the tray body, the tray body having a plurality of through holes (5) into which the supporting legs can be inserted in a non-removable manner, and positioning means.

FIG. 1



Description

OBJECT OF THE INVENTION

[0001] The object of the present application is to provide a storage platform that incorporates significant innovations.

[0002] More specifically, the invention proposes the development of a storage and/or transportation platform, especially configured for use in manufacturing processes, with a higher degree of rigidity and structural stability.

BACKGROUND OF THE INVENTION

[0003] The use of trays to transport components and parts during the different steps that may exist in an industrial or manufacturing process is well known in the industrial sector, and in particular in the automotive sector.

[0004] An example of this type of trays is described in utility model no. ES 1 172 208, the owner of which corresponds to the owner of this application. Although this tray satisfactorily fulfils the function for which it has been designed, it has occasionally been observed that it may suffer from a lack of rigidity and/or structural stability which can cause some deformation, especially in the area of the supporting legs. In addition, another drawback detected is in the process of manufacturing the tray-like body, wherein due to the considerable dimensions that it can have, the manufacturing mould used can have relatively large and complex figures or cavities, which reduces the optimal manufacturing conditions, and which are especially sensitive in those areas of the figure corresponding to the supporting legs or elements, since they are cavities which emerge in a direction orthogonal to the surface development of the main figure which dimensionally corresponds to the main body of the platform itself.

[0005] Furthermore, the applicant is currently unaware of an invention that has all the features described in this specification.

DESCRIPTION OF THE INVENTION

[0006] The present invention has been developed with the aim of providing a storage platform which is configured as a novelty within the field of application and solves the previously drawbacks, also contributing other additional advantages that will be obvious from the description below.

[0007] Therefore, an object of the present invention is to provide a storage platform, comprising a board-like tray body and a plurality of supporting legs located on one of the faces of the tray body, which is characterised in that non-releasable coupling means are provided between each of the supporting legs and the tray body, the tray body having a plurality of through holes into which the supporting legs can be inserted in a non-removable

manner, and positioning means which facilitate the assembly of the supporting legs in the corresponding hole thereof.

[0008] According to another aspect of the invention, the non-releasable coupling means comprise an assembly system present on the supporting leg which can be coupled in a specific region formed in the inner wall of the corresponding hole.

[0009] Preferably, each of the supporting legs making up part of the platform of the invention is defined by an elongated body which is hollow on the inside, having a first frustoconical portion and a second substantially prismatic portion, both first and second portions being separated from each other by an edge which protrudes outwards along the perimeter.

[0010] According to a preferred embodiment of the invention, the positioning means comprise projections which protrude outwards from the side wall forming the leg, such projections being able to fit into slotted portions made in the inner wall forming the hole.

[0011] In order to provide a greater degree of rigidity and stability to the structure, the lower face of the board whereon the supporting legs are located comprises reinforcing ribs distributed longitudinally and transversely.

[0012] Preferably, the through holes are formed by hollow regions which extend downwards from the tray body.

[0013] Thanks to these features, a storage platform is obtained which has a greater degree of rigidity and structural stability, thus preventing possible deformations of the same when transporting objects with a considerable weight. Furthermore, it has a constructive simplicity, which facilitates the manufacturing method (especially with regards to the design of the mould used to manufacture the tray body) and the subsequent assembly of the different members forming the assembly of the storage platform.

[0014] Thus, the storage platform described represents an innovative structure with structural and constituent features heretofore unknown for its intended purpose, reasons which, taken together with its usefulness, provide it with sufficient grounds for obtaining the requested exclusivity privilege.

[0015] Other features and advantages of the storage platform object of the present invention will become apparent from the description of a preferred but not exclusive embodiment illustrated by way of non-limiting example in the attached drawings, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

[0016]

Figure 1 is a perspective view of the assembled storage platform of the invention;

Figure 2 is a perspective view of the board-like tray body being part of the platform according to the present invention;

Figures 3 and 4 are detailed perspective views of

one of the coupling areas of a supporting leg in one of the through holes present in the tray body;
 Figure 5 is a perspective view of a supporting leg being part of the platform of the invention;
 Figure 6 is an exploded detailed perspective view of a coupling area in the body of the board provided for a supporting leg, wherein the assembly system can be shown; and
 Figure 7 is a detailed perspective view of a supporting leg coupled to the board body.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0017] In light of the aforementioned figures, and in accordance with the adopted numbering, one may observe therein an example of a preferred embodiment of the invention, which comprises the parts and elements indicated and described in detail below.

[0018] As shown in the figures, the storage platform essentially comprises a board-like tray body (1) and a plurality of supporting legs (2) located on one of the faces of the tray body (1), both elements being made up of an injection-mouldable plastic material. The tray body (1) has a rectangular layout with chamfered corners in order to prevent accidents from collisions.

[0019] Furthermore, non-releasable coupling means (described below) are provided between each of the supporting legs (2) and the tray body (1), the tray body (1) having a plurality of through holes (5), with a rectangular layout, wherein the supporting legs (2) can be inserted in a non-removable manner.

[0020] Advantageously, the through holes (5) are formed by hollow regions defined by walls (51) which extend downwards and in an orthogonal direction with respect to the plane which defines the tray body.

[0021] Going into detail, each of the supporting legs (2) is formed from an elongated body which is hollow on the inside, having a frustoconical portion (20) and a substantially prismatic portion (21), both portions being separated by an edge (22) which protrudes along the perimeter. In an assembled condition of the platform, the substantially prismatic portion (21) is completely inserted into the tray body (1), as can be seen in greater detail in Figure 7.

[0022] In particular reference to Figure 6, the aforementioned non-releasable coupling means comprise an assembly system (3) present on two walls opposite from each other of the substantially prismatic portion (21) of the supporting leg (2) which can be coupled in a specific region (11) formed by a stepped region located on the inner wall of each of the through holes (5) (see Figure 3).

[0023] Additionally, in order to facilitate the placement of the supporting legs (2), positioning means are provided which comprise longitudinal projections (4) which protrude outwards from the side wall forming the supporting leg (2), such longitudinal projections (4) being able to fit into slotted portions (50) made in the inner wall forming the through hole (5), as seen more clearly in Figures 3

and 4.

[0024] The lower face of the tray body (1), which corresponds to the one whereon the supporting legs (2) are located, comprises a plurality of reinforcing ribs (6) which are distributed longitudinally and transversely over the entire surface of the lower face. The lower face is understood to be the one which is not foreseen for placing the articles, components or load to be supported by the storage platform described herein.

[0025] The details, shapes, dimensions and other complementary elements used in manufacturing the storage platform of the invention may be suitably replaced with others that do not depart from the scope defined by the claims below.

Claims

1. A storage platform, comprising a board-like tray body and a plurality of supporting legs located on one of the faces of the tray body, the tray body and the plurality of legs being made of an injection-mouldable plastic material, **characterised in that** non-releasable coupling means are provided between each of the supporting legs and the tray body, the tray body having a plurality of through holes into which the supporting legs are insertable in a non-removable manner, and positioning means.
2. The storage platform according to claim 1, **characterised in that** the non-releasable coupling means comprise an assembly system present on the supporting leg which can be coupled in a specific region formed on the inner wall of the corresponding through hole.
3. The storage platform according to any of the preceding claims, **characterised in that** each of the supporting legs is defined by an elongated body which is hollow on the inside, having a first frustoconical portion and a second substantially prismatic portion, both first and second portions being separated from each other by an edge which protrudes outwards along the perimeter.
4. The storage platform according to claim 1, **characterised in that** the positioning means comprise projections which protrude outwards from the side wall forming the leg, such projections being able to fit into slotted portions made in the inner wall forming the hole.
5. The storage platform according to any of the preceding claims, **characterised in that** the lower face of the tray body whereon the supporting legs are located comprises reinforcing ribs distributed longitudinally and transversely.

6. The storage platform according to any of the preceding claims, **characterised in that** the through holes are formed by hollow regions which extend downwards and in an orthogonal direction with respect to the plane which defines the tray body.

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FIG. 1

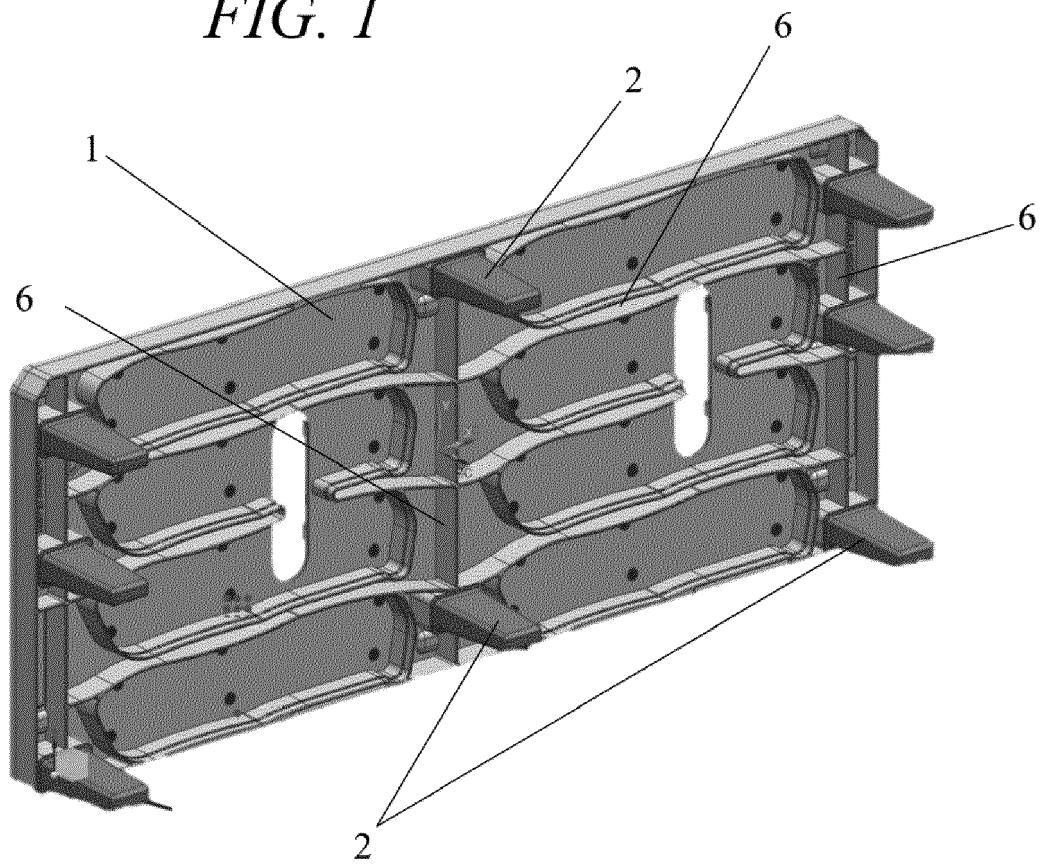


FIG. 2

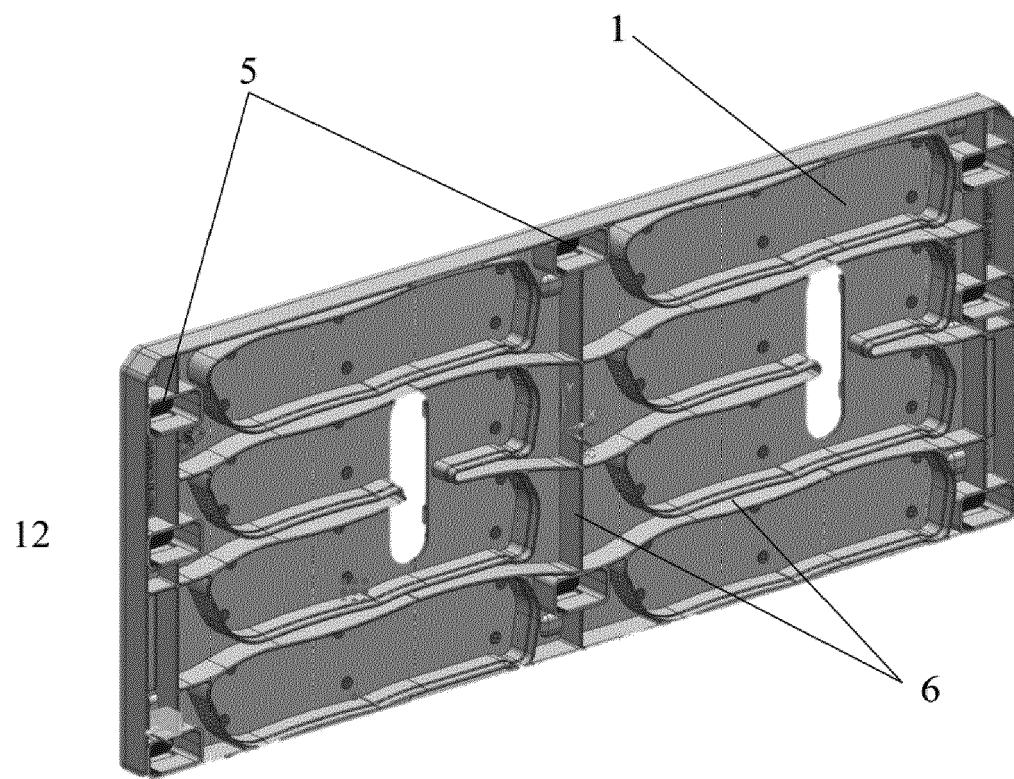


FIG. 3

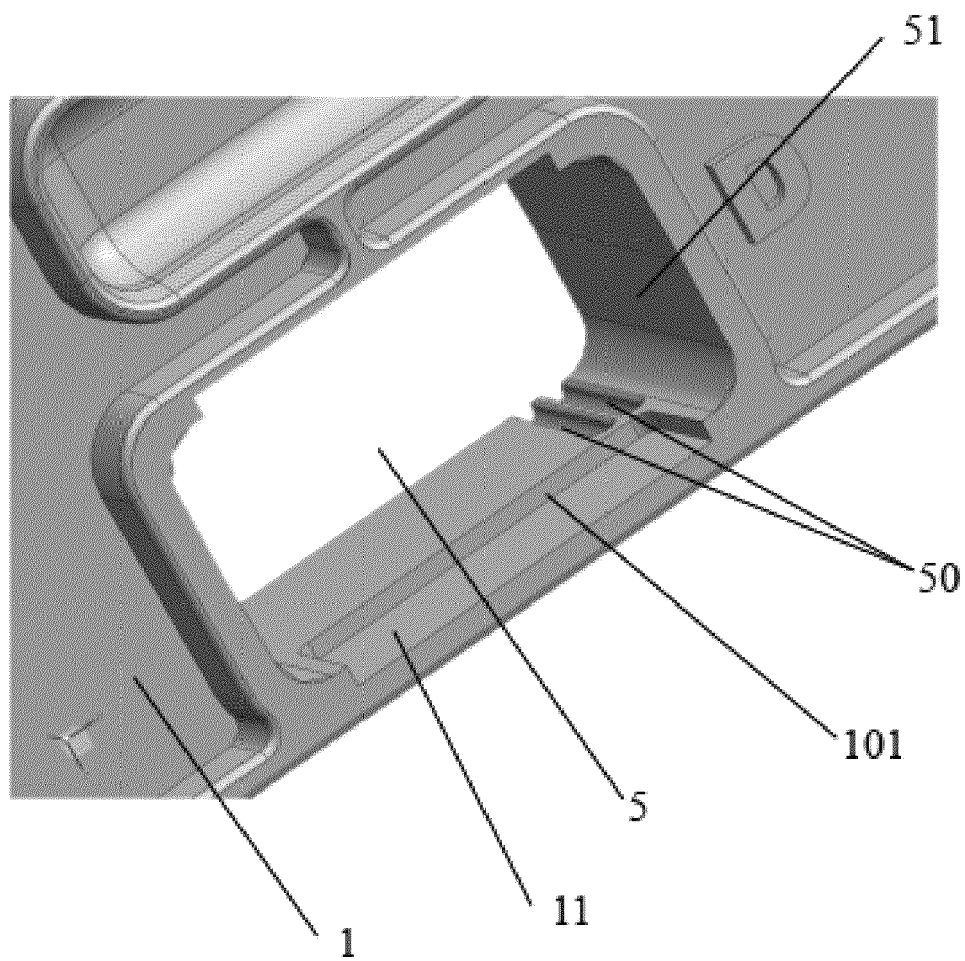
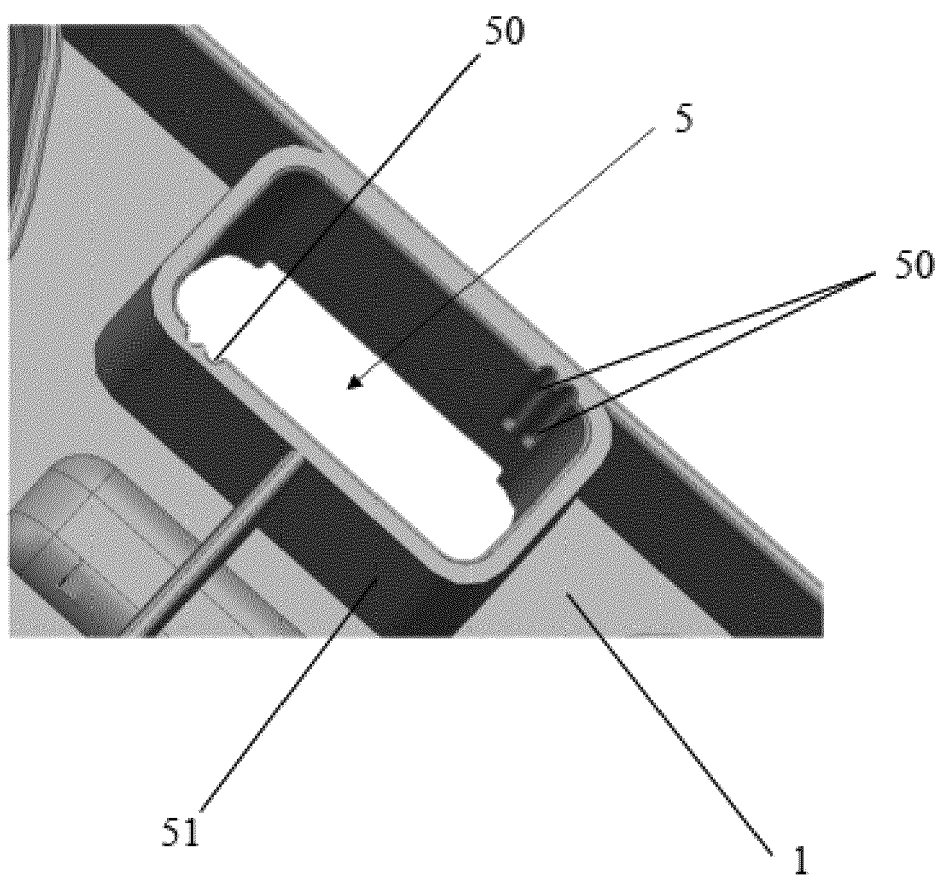


FIG. 4



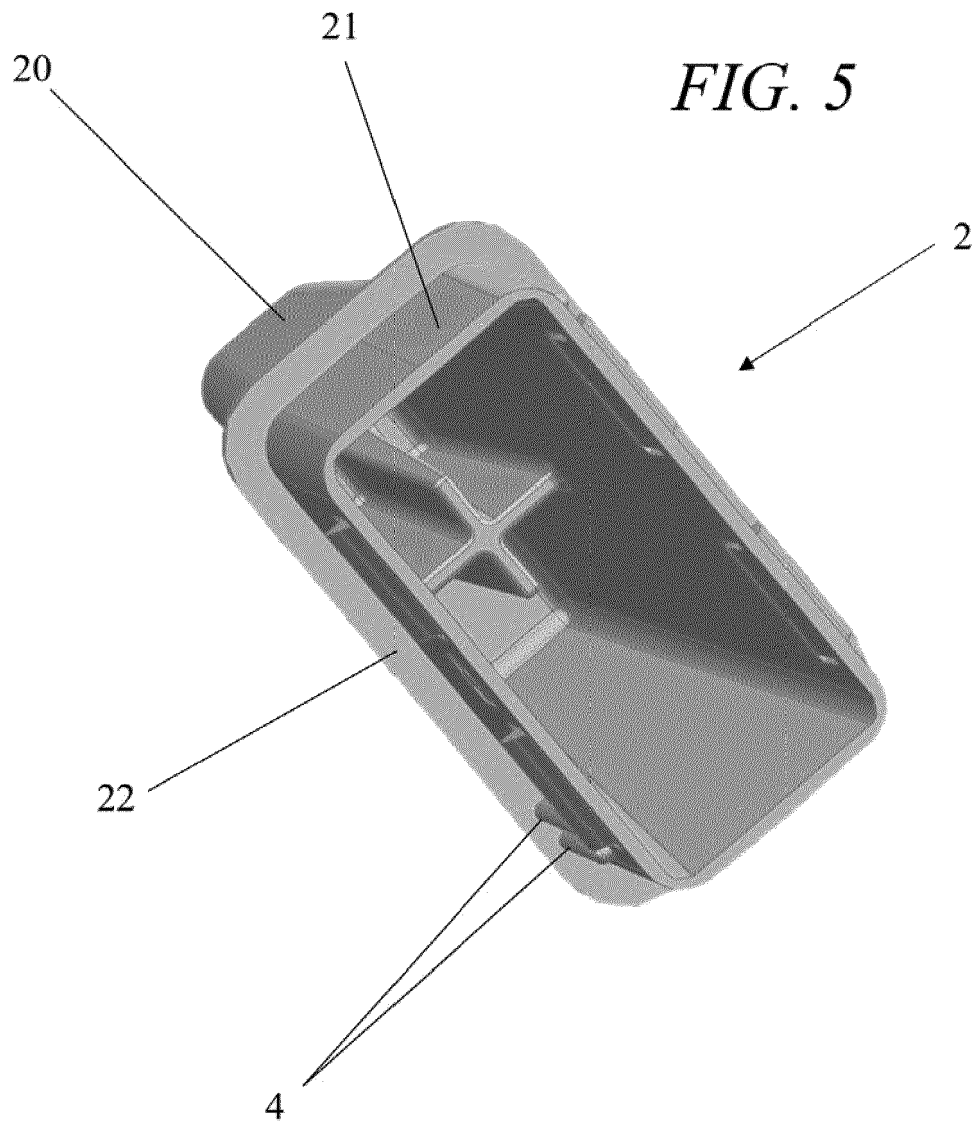


FIG. 6

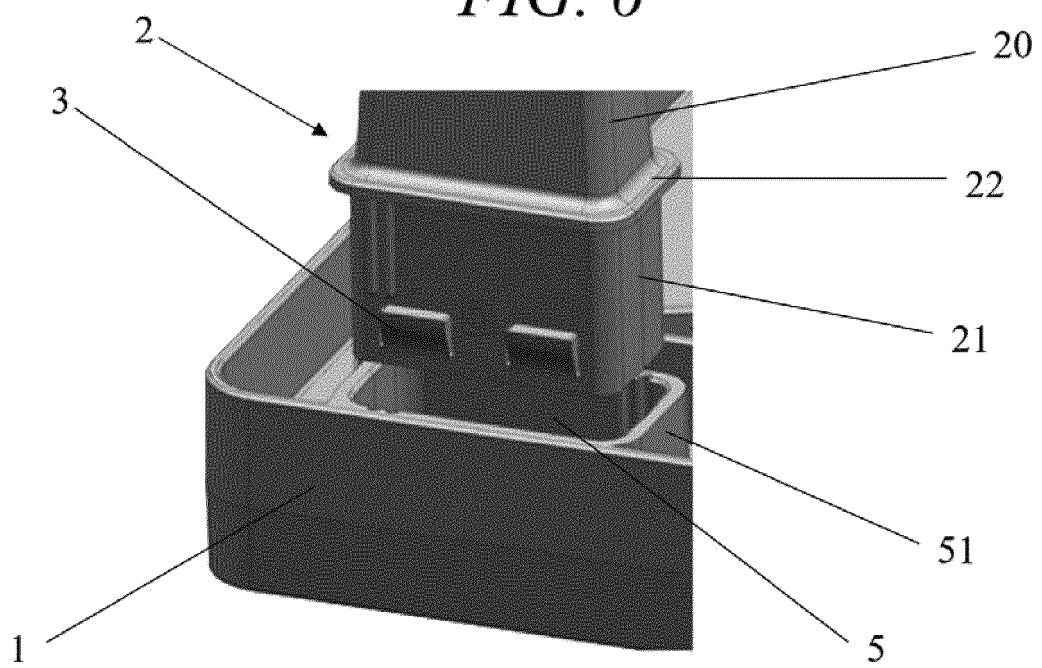
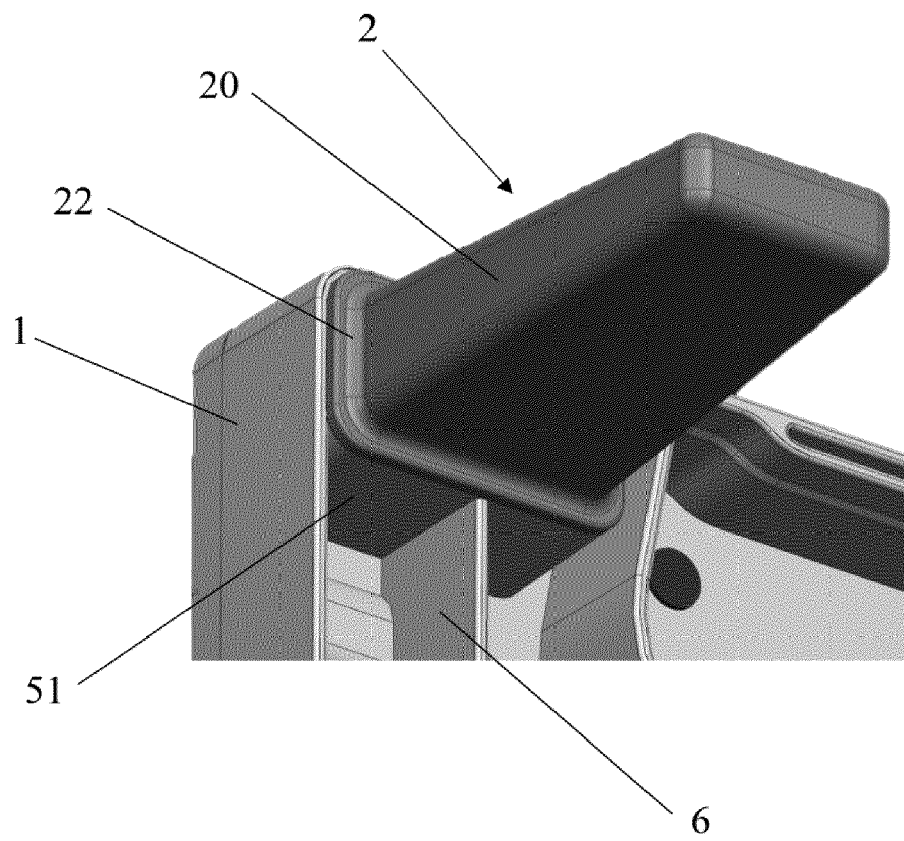


FIG. 7





EUROPEAN SEARCH REPORT

Application Number
EP 21 38 2019

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Y	* paragraph [0002]; figures 1-4 *	3	
X	US 4 279 204 A (PROPST ROBERT L) 21 July 1981 (1981-07-21)	1,6	
Y	* column 2, line 20 - column 3, line 19; figures 1-5 *	1-3,5,6	
Y	EP 1 690 799 A1 (HPN DIE VERPACKUNGSTECHNIK GMB [DE]) 16 August 2006 (2006-08-16) * paragraph [0018] - paragraph [0033] * * figures 1-11 *	1-3,5,6	
Y	TW 200 942 452 A (YUAN DENG METALS IND CO LTD [TW]) 16 October 2009 (2009-10-16) * figures 1-8 *	1-3,5,6	
A	CN 102 700 798 A (DASHAN ZHANG) 3 October 2012 (2012-10-03) * figures 1-14 *	1-6	TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 18 May 2021	Examiner Fitterer, Johann
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82