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(54) **PRECUT CARDBOARD BLANK AND PLATFORM OBTAINED BY SAID PRECUT**

(57) A precut blank (1) for the formation of a platform, having a central panel (2) with a rectangular shape, on each of the two longer sides of which there is a shaped portion (5, 5') being divided into four successive panels comprising a first panel (7, 7'), a second panel (8, 8'), a third panel (10, 10') and a fourth panel (12, 12'), the first and third panels being equal to each other, at least one of which being equipped, on the respective left side, with a first left shaped panel (130, 130'), and on the respective right side, with a first right shaped panel (15, 15'), wherein each shaped portion (5, 5'), at the first, second and third panel, comprises a central part defined by two cut lines (25, 26; 25', 26') and by two perimeter lines (27, 27'; 28, 28') positioned, respectively, in the first and in the third panel, the precut blank comprising a first sub-panel (21, 21') made in the central part at a first perimeter line (27, 27').

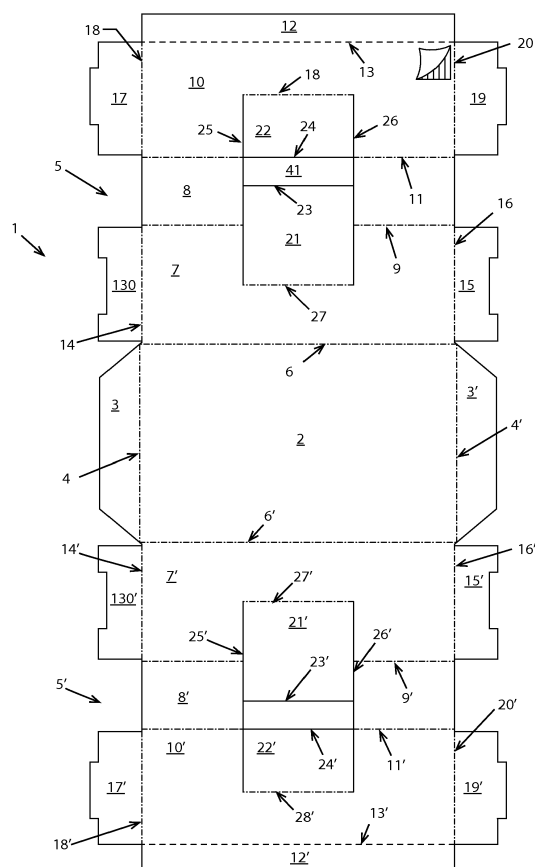


Fig. 1

Description

[0001] This invention relates to a cardboard precut blank and a cardboard platform obtained from the precut blank.

[0002] The invention relates to the sector of goods loading and transport, and in particular to the cardboard platforms and the so-called Palboxes, which have started to become widespread over recent years due to both environmental and economic reasons.

[0003] It is known that, for the loading and transport of various goods, use is made of platforms, also called loading pallets or simply pallets, that is to say, portable platforms, generally made of wood and consisting of spaced rectangular strips, overlying slats which are also spaced apart in such a way as to allow the insertion of the horizontal arms of the forklift trucks with which the platforms are lifted and moved.

[0004] The limitations of these solutions are mainly the weight and the overall size, bearing in mind that the platforms occupy an identical space when they are used and when they are not.

[0005] In order to overcome the problems due to the wooden platforms, platforms made of cardboard have been proposed, which have the advantage of being much lighter than wooden platforms, for the same weight supported, and they can be assembled at the time of use and dismantled for the rest of the time, with a considerable saving in transport and storage space.

[0006] More specifically, the cardboard platforms can be integrated with a box-shaped structure made of cardboard, to form the base of a so-called Palbox, that is, a large sized container for the transport and display of goods. In this case, in fact, compared with the solutions made of plastic materials which are normally used, the advantages in terms of space are even greater.

[0007] A limitation of the cardboard platforms which are currently available on the market consists in the difficulty in assembly and insertion in the Palbox, especially in terms of the time needed for the assembly, and consequently in terms of cost.

[0008] The prior art documents US 5,377,600 A, DE 91 10 425 U1 and DE 10 2015 007205 A1 describe various embodiments of the cardboard platform designed to be lifted by a forklift truck. However, these solutions are not very resistant, since the arms of the forklift truck act directly on the supporting surface of the platform, risking the failure in the case of heavy loads or loads not equally distributed on the surface.

[0009] In this context, the aim of this invention is to provide a cardboard precut blank and a cardboard platform obtained by means of the precut blank which can offer to the user simplicity and very fast speed in the assembly and insertion in a Palbox. The reduced assembly times increase the quantity of platforms made in the same time and, consequently, reduce the costs.

[0010] The main aim of the invention is to provide the final user with a very robust product, which is able to offer

a considerable strength in terms of compression.

[0011] Moreover, another characteristic which substantially differentiates the cardboard precut blank and the cardboard platform obtained by means of the precut blank according to this invention is the absence of adhesive tape for the assembly and the blocking of the structure of the platform, which is consequently configured as a totally recyclable product.

[0012] The aim of this invention is therefore to provide a cardboard precut blank and a cardboard platform obtained by means of the precut blank which allows the limitations of the load platforms according to prior art technology to be overcome and to obtain the technical results described above.

[0013] A further aim of the invention is that the cardboard precut blank and the cardboard platform obtained by means of the precut blank can be made with substantially reduced costs, both in terms of the production costs and with regard to the management costs.

[0014] Another aim of the invention is to provide a cardboard precut blank and a cardboard platform obtained by means of the precut blank which are simple, safe and reliable.

[0015] A first specific object of this invention is therefore to provide a precut blank for the formation of a platform,

the precut blank having a central panel, with a rectangular shape, on each of the two longer sides of which there is a shaped portion joined to the central panel by a horizontal crease line, the shaped portion being divided into four successive panels, connected by crease lines parallel to the horizontal crease line, the four panels comprising a first panel, a second panel, a third panel and a fourth panel, the first panel and the third panel being equal to each other and being equipped, on the respective left sides, with a first left shaped panel and by a second left shaped panel, and on the respective right sides, by a first right shaped panel and by a second right shaped panel;

the precut blank being configured in such a way that bending upstream the first panel, the second panel and the third panel,

then bending upstream the first left shaped panel and the second left shaped panel, in such a way that they engage with each other and the first right shaped panel and the second right shaped panel, in such a way that they engage with each other, and bending downstream the fourth panel and coupling it to the lower face of the central panel

a platform is obtained.

[0016] Moreover, it is object of this invention a precut blank for the formation of a platform designed to be lifted by the arms of a forklift truck, the precut blank having a central panel, with a rectangular shape and designed to become the supporting surface of the platform, on each of the two longer sides of which there is a shaped portion designed to become the legs of the platform, joined to the central panel by a first crease line, the shaped portion

being divided into four successive panels, connected by second crease lines parallel to the first crease line, the four panels comprising a first panel, a second panel, a third panel and a fourth panel, the first panel and the third panel being equal to each other, at least one of the first and third panel being equipped, on the respective left side, by a first left shaped panel, and on the respective right side, by a first right shaped panel, at the left and right sides there being third crease lines at right angles to the first crease line; the precut blank being configured in such a way that, with respect to the outer face of the precut blank, bending upstream the first panel, the second panel and the third panel along the crease lines between the central panel, the first, second and third panel, then bending upstream the first left shaped panel and the first right shaped panel along the respective third crease lines, so as to block the first, second and third panel at right angles to each other and with respect to the central panel, and bending downstream the fourth panel along the crease line with the third panel and coupling it to the inner face of the central panel a platform is obtained, the precut blank being characterised in that each shaped portion, at the first, second and third panel, has a central part defined by two cut lines, parallel to the third crease lines, and by two perimeter lines, parallel to the first crease line and each positioned respectively in the first and in the third panel, and in that it comprises a first sub-panel made in the central part at a first perimeter line, the precut blank being configured in such a way that when the precut blank is assembled as the platform, bending upstream with respect to the outer face of the precut blank the first sub-panel along the respective first perimeter line it rests on the other perimeter line forming a slot between the legs of the platform for inserting the arms of a forklift truck.

[0017] More specifically, according to the invention, the precut blank can comprise a second sub-panel made in the central part at the second perimeter line, the precut blank being configured in such a way that when the precut blank is assembled as a platform, bending upstream, with respect to the outer face of the precut blank, the second sub-panel along the respective perimeter line it forms a supporting surface for the first sub-panel.

[0018] Again according to the invention, when the precut blank is assembled as a platform the first sub-panel may be coupled to the second subpanel, in particular by gluing.

[0019] Always according to the invention, the overall length of one or two sub-panels can be less than the length of the two cut lines, in such a way as to leave an empty space in the central part.

[0020] Further, according to the invention, the first panel and the third panel can comprise, on the respective left sides, a first left shaped panel and a second left shaped panel, and on the respective right sides, a first right shaped panel and a second right shaped panel, in such a way that when the precut blank is assembled as a platform, bending upstream, with respect to the outer

face, the first left shaped panel and the second left shaped panel, along the respective crease lines the first right shaped panel and the second right shaped panel engage with each other, in such a way that the first, second and third panel block with each other at right angles and with respect to the central panel.

[0021] Alternatively, according to the invention, the first shaped panels each can have a lateral tab divided by a crease line parallel to the third crease lines, designed to enclose in the leg of the platform when the precut blank is assembled as a platform.

[0022] More specifically, according to the invention, the precut blank can comprise a second left lateral shaped panel and a second right lateral shaped panel at a third or first panel, in such a way that bending downstream, with respect to the outer face, the second lateral shaped panels of a shaped portion along the respective third crease lines, they engage with the other shaped portion, further reinforcing the platform.

[0023] More specifically, according to the invention, the second lateral shaped panels can have a slot, the central panel can have two lateral panels having a protrusion, and when the precut blank is assembled as a platform the protrusion engages in the slot.

[0024] Again according to the invention, the precut blank can comprise a pair of notches and tabs which are able to engage with each other to facilitate the blocking of the lateral shaped panels when the precut blank is assembled as a platform.

[0025] Preferably, according to the invention, the precut blank is made with corrugated cardboard, and more preferably the corrugated cardboard is of the KS-FSK/56265/BC type, wherein:

K5: 200 g/m²
 S6 (wave B): 210 g/m²
 F2: 120 g/m²
 S6 (wave C): 225 g/m²
 K5: 200 g/m²
 Thickness of 7 mm.

[0026] It is further object of the present invention a platform designed to be lifted by the arms of a forklift truck obtained bending the precut blank as described above.

[0027] The effectiveness of the solution according to this invention is evident, allowing a cardboard precut blank and a cardboard platform obtained by means of the precut blank to be obtained which are completely recyclable and in particular a cardboard platform optimised in terms of operation, with high load resistance and fast assembly speed.

[0028] The invention is now described, by way of example and without limiting the scope of the invention, with reference to the accompanying drawings, in which:

- Figure 1 illustrates a view from above of a first embodiment of the precut blank according to the invention, in a completely dismantled arrangement;

- Figure 2 illustrates a view from above of the precut blank of Figure 1, in a partially assembled arrangement, ready for use by a final user;
- Figures 3A and 3B illustrate a perspective view from below of an assembly detail of the platform which can be obtained from the precut blank of Figure 2, in two successive assembly steps;
- Figure 4 illustrates a perspective view from below of the platform obtained from the precut blank of Figure 2, completely assembled;
- Figure 5 illustrates a perspective view from above of the platform of Figure 4;
- Figure 6 illustrates a view from above of a second embodiment according to the invention, in a completely dismantled arrangement;
- Figure 7 illustrates a view from above of the platform obtained from a third embodiment of the precut blank according to the invention, in a completely assembled arrangement;
- Figure 8 illustrates a perspective view from above of the platform of Figure 7, partially assembled;
- Figure 9 illustrates a perspective view from below of the platform of Figure 7;
- Figure 10 illustrates a perspective side view from below of the platform of Figure 7;
- Figure 11 illustrates a perspective side view from below of the platform of Figure 8; and
- Figure 12 illustrates a perspective view from below of the platform of Figure 7 in a partially dismantled arrangement.

[0029] Figures 1 to 5 show the flat precut blank according to a first embodiment of the invention, denoted by the reference numeral 1, and the platform obtained by the assembly of the precut blank 1. The platform obtained in this way is particularly advantageous for use in combination with a Palbox. However, other uses of the platform can be contemplated without thereby departing from the scope of protection offered by the invention.

[0030] The precut blank 1 can be obtained from a single flat sheet, in particular made of paper material, and more specifically made of cardboard, but it is obvious that the same precut blank may allow the same space saving and ease of recycling results to be also achieved if it is made of plastic material or other recyclable material, the main characteristics of which being that of allowing a fast assembly and not requiring the use of aids for the assembly, which might be made of different material (such as, for example, the adhesive tape necessary for the prior art cardboard platforms to ensure the assembly).

[0031] As it will be seen below, the flat precut blank 1 of Figure 1 comprises a plurality of fold lines or crease lines designed to be bent to obtain the platform shown in Figures 4 and 5. By convention, the cut lines will be indicated with a thicker line than the crease lines, and the crease lines will be represented in the drawings with dashed lines when they indicate bending inside or downstream, which, once performed, form an internal dip with

respect to the outer face of the precut blank, and with dot-dashed lines when they indicate bending outside or upstream, which, once performed, form an external edge with respect to the outer face. By convention, the inner portion or face of the precut blank, and, therefore, of the folds, means the portion of the sheet opposite the portion which is visible from above in Figure 1, and the outer portion is the opposite portion, visible in Figure 1.

[0032] The precut blank 1 according to the invention has a rectangular central panel 2, designed to form the supporting surface of the platform according to the invention, on the right and left sides of which there are two lateral panels 3 and 3', respectively a left lateral panel 3, divided from the central panel 2 by a vertical crease line 4 and a right lateral panel 3', divided from the central panel 2 by a vertical crease line 4', parallel to the other vertical line 4.

[0033] On the remaining two sides of the central panel 2 there are a first compound portion 5 and a second compound portion 5' of the precut blank 1, identical to each other and divided from the central panel 2 respectively by a first horizontal crease line 6, 6', at right angles to the vertical crease lines 4, 4', the first compound portion 5 and the second compound portion 5' being designed to form the legs of the cardboard platform, indicated, respectively, with the reference numerals 30 and 30' in Figures 3 to 5.

[0034] The first compound portion 5 and the second compound portion 5' are each divided into four successive panels, starting from the respective first horizontal crease line 6 or 6', in particular each of the first compound portion 5 and the second compound portion 5' is divided into a first panel 7, 7', divided from the central panel 2 by the first horizontal crease line 6, 6', designed to form the outer wall of the leg 30, 30' of the platform 1; a second panel 8, 8', divided from the first panel 7, 7' by a second horizontal crease line 9, 9', designed to form the supporting base of the leg 30, 30' of the platform 1; a third panel 10, 10', divided from the second panel 8, 8' by a third horizontal crease line 11, 11', designed to form the inner wall of the leg 30, 30' of the platform 1; a fourth panel 12, 12', divided from the third panel 10, 10' by a fourth horizontal crease line 13, 13', designed to be coupled to the lower face or inner face of the central panel 2, to secure the inner wall of the leg 30, 30' of the platform 1 to the central panel 2. The coupling may take place by means of hot glue, adhesives or other binders.

[0035] On the sides of each first panel 7, 7' there is a first left shaped panel 130, 130', divided from the first panel 7, 7' by a crease line 14, 14', at right angles to the first horizontal crease line 6, 6', and a first right shaped panel 15, 15', divided from the first panel 7, 7' by a crease line 16, 16', parallel to the crease line 14, 14'. The first left shaped panel 130, 130' and the first right shaped panel 15, 15' are identical, substantially rectangular and with the side opposite to that on which there is the respective crease line 14, 14', 16, 16', shaped with a central portion more retracted with respect to the lateral portions,

which form two notches.

[0036] On the sides of each third panel 10, 10' there is a second left shaped panel 17, 17', divided from the third panel 10, 10' by a crease line 18, 18', parallel to the crease line 14, 14', and a second right shaped panel 19, 19', divided from the third panel 10, 10' by a crease line 20, 20', parallel to the crease line 14, 14'. The second left shaped panel 17, 17' and the second right shaped panel 19, 19' are identical, substantially rectangular and with the side opposite to that on which there is the respective crease line 18, 18', 20, 20', shaped with two lateral portions more retracted with respect to the central portion, which forms a tab.

[0037] Lastly, a central part of each compound portion 5, 5', in turn divided into a first half-part or sub-panel 21, 21' and a second half-part or sub-panel 22, 22', is divided laterally from the rest of the compound portion 5, 5', by means of left cut lines 25, 25' and right cut lines 26, 26', parallel to the crease line 14, 14', and is joined to the rest of the compound portion 5, 5' by first crease or perimeter lines 27, 27', at right angles to the cut lines 25, 25', 26, 26', which join them with the first panel 7, 7' and by second crease or perimeter lines 28, 28', at right angles to the cut lines 25, 25', 26, 26', which join them with the third panel 10, 10'. The half-parts 21, 21', 22 and 22' therefore have a free edge 23, 24, 23', 24'. The central part is designed to be bent so as to separate the lower part of the legs 30, 30' of the platform 1, to facilitate, for example, the insertion of loading straps, designed to secure on the platform the goods loaded thereon.

[0038] More specifically, the central part is that on which the arms of the forklift truck act, allowing an easier movement of the platform, exploiting the improved rigidity of the structure of the platform.

[0039] In fact, the forks or arms of the forklift truck insert in the slot between the legs of the platform and act on the half-panels 21 and 21', which have an excellent rigidity, since they rest on the panels 10, 10' on their edges. There is no risk of failure with this solution, for example in the case of unbalanced arrangement of the loads on the supporting surfaces 2 of the platform, which is the case with the above-mentioned prior art solutions.

[0040] The second sub-panel 22, 22' forms a supporting surface for the first sub-panel 21, 21', and they can be coupled to each other by gluing.

[0041] According to other embodiments, the second sub-panel 22, 22' may not be provided, and the first sub-panel 21, 21' can rest directly on the second perimeter line 28, 28'.

[0042] Preferably, the overall length of one or two sub-panels 21, 21', 22, 22' is less than the length of the two cut lines 25, 26; 25', 26', in such a way as to leave an empty space 41 in the central part (as shown in Figure 1).

[0043] Figure 2 shows how the precut blank 1 can be configured in such a way as to be ready for use by a final user simply by coupling the fourth panels 12, 12' by gluing on the lower face of the central panel 2, bending downstream with respect to the outer face of the precut blank

1 the fourth horizontal crease lines 13, 13'.

[0044] As shown in Figures 3 to 5, in order to make the platform it will be sufficient to bend the first 7, 7', the second 8, 8' and the third 10, 10' panel along the respective crease lines 6, 6', 9, 9', 11, 11' upstream of the outer face of the precut blank 1, in such a way as to form the legs 30, 30' of the platform, engaging between each other, respectively, the notches of the first left shaped panel 130, 130' with the tab of the second left shaped panel 17, 17' and the notches of the first right shaped panel 15, 15' with the tab of the second right shaped panel 19, 19', so as to block the first 7, 7', the second 8, 8' and the third panel 10, 10' at right angles to each other and with respect to the central panel 2. This type of engagement not only guarantees an extremely fast assembly of the platform, but also avoids the need to use adhesive tape for closing the legs 30, 30' of the platform.

[0045] Figures 6 - 12 show two further embodiments of the flat precut blank according to the invention and the platform obtained by bending the precut blank 1.

[0046] All the elements in common with the precut blank according to the first embodiment will be indicated with the same numerical references.

[0047] These embodiments differ in that they have a different system for closing or locking the legs of the platform.

[0048] In these two embodiments, each first left shaped panel 130, 130' also has a lateral tab 32, 32' divided from the first left shaped panel 130, 130' by a crease line 33, 33' substantially parallel to the crease line 18, 18' which divides the third panel 10, 10' from the second left shaped panel 17, 17'.

[0049] In a mirror-like fashion, each first right shaped panel 15, 15' also has a lateral tab 34, 34' divided from the first right shaped panel 15, 15' by a crease line 35, 35' substantially parallel to the crease line 20, 20' which divides the third panel 10, 10' from the second right shaped panel 19, 19'.

[0050] Moreover, each shaped first panel 130, 130' and 15, 15' has a protrusion or tab 36 designed to couple with a respective notch 37 made on each lateral edge of each second panel 8, 8'.

[0051] For this reason, bending upstream the crease lines 14, 14' and 16, 16' between the first shaped panels 130, 130' and 15, 15' and the first panel 7, 7' and bending downstream the crease lines 33, 33' and 35, 35' with respect to the outer face of the precut blank 1, the shaped panels enclose with the lateral tabs 32, 32' and 34, 34' which enclose in the legs and the protrusions 36, 36' engage in the respective notches 37, 37', so that they engage with each other, and the first 7, 7', second 8, 8' and third panel 10, 10' block with each other at right angles and with respect to the central panel 2, blocking in position the legs of the platform (as shown in Figures 7 to 12).

[0052] The second shaped panels 17' and 19' of one 5' of the compound portions 5 and 5' can also have respective lateral tabs 38', and bending downstream the

panels 17' and 19' along the respective crease lines 18' and 20' which divides them from the third panel 10' closes the free space which is formed between the two legs, thereby further stiffening the structure. According to the embodiments shown in Figures 6 to 12 they are only present in a compound portion 5', but in other embodiments the tabs could be made in a second lateral shaped panel 17 and 19' or 19 and 17' of both the compound portions 5 and 5'.

[0053] Moreover, a slot 39 may be made in the second lateral panels 17, 19, 17', 19' in which a protrusion 40 made in each lateral panel 3, 3' may be inserted when the platform is assembled (as shown in Figure 7, thereby further stiffening the structure).

[0054] In order to make a platform which is able to support a static load of up to 120 kg and be able to guarantee this over time the precut blank according to this invention is preferably made with cardboard having virgin fibres, which is able to offer a considerable compressive strength.

[0055] More specifically, in order to guarantee a high strength, type KSFSK/56265/BC corrugated material is used, wherein:

K5: 200 g/m²
S6 (wave B): 210 g/m²
F2: 120 g/m²
S6 (wave C): 225 g/m²
K5: 200 g/m²
Thickness of 7 mm.

[0056] The fibres preferably used for the manufacture of cardboard to be used for the precut blank according to this invention are virgin fibres, that is to say, produced from natural vegetation (wood and annual plants) and more precisely from 80% coniferous plants, which, with respect to broad-leaved plants (a max. of 20% is permitted) have much longer fibres.

[0057] The approximate lengths of the fibres of conifers and broad-leaved plants are shown below for reference purposes.

[0058] With regard to the length, expressed in millimetres: Silver Fir 3.5; Douglas Fir 2.5 - 4; Scots Pine 3 - 3.5; Southern Yellow Pine (USA) 4 - 4.5; Birch 1.2 - 1.5; Eucalyptus 1; Beech 1.2 - 1.5; Poplar 1 - 1.3; Oak 1.4 - 1.6.

[0059] The process for coupling together the flat paper elements, to form the corrugated cardboard required, uses hot surfaces, flat and smooth elements arranged one after the other, on which a continuous strip of corrugated cardboard runs. They are heated by steam from 120°C to 180°C; the temperature is adjustable as a function of the speed of the machine and the type of cardboard to be produced.

[0060] The heat of the surfaces, which is generally high on the initial ones and then gradually decreasing, determines the definitive gluing of the corrugated paper(s) to the cover, with the drying of the starch and the evaporation of the aqueous part of the solution.

[0061] In order keep the continuous strip of cardboard in contact with the surfaces use is made of a felt guided by a feed drum positioned at the start of the surfaces and by a pulling drum positioned at the end.

[0062] The pressure exerted by the felt on the cardboard to facilitate the gluing may be increased by using a variable number of small "pressure rollers"; the drying felt also prevents, or at least slows down, the dispersion of the heat from the surfaces and absorbs and frees the water vapour which is formed.

[0063] Thanks to the precut blank 1 according to the invention, a platform is obtained which is easy and fast to assemble, which does not use materials other than those of the precut blank itself.

[0064] The preferred embodiments have been described above and variants of the invention have been described, but it shall be understood that the invention may be modified and/or adapted by experts in the field without thereby departing from the scope of the inventive concept, as defined in the claims herein.

Claims

1. A precut blank (1) for the formation of a platform designed to be lifted by the arms of a forklift truck, the precut blank (1) having a central panel (2), with a rectangular shape and designed to become the supporting surface of the platform, on each of the two longer sides of which there is a shaped portion (5, 5') designed to become the legs of the platform, joined to the central panel (2) by a first crease line (6, 6'), the shaped portion (5, 5') being divided into four successive panels (7, 7'; 8, 8'; 10, 10'; 12, 12'), connected by second crease lines (9, 9'; 11, 11'; 13, 13') parallel to the first crease line (6, 6'), the first panels (7, 7'; 8, 8'; 10, 10'; 12, 12') comprising a first panel (7, 7'), a second panel (8, 8'), a third panel (10, 10') and a fourth panel (12, 12'), the first panel (7, 7') and the third panel (10, 10') being equal to each other, at least one (7, 7') of the first (7, 7') and third (10, 10') panel being equipped, on the respective left side, with a first left shaped panel (130, 130'), and on the respective right side, with a first right shaped panel (15, 15'), the left and right sides being provided with third crease lines (14, 14', 18, 18', 16, 16', 20, 20') at right angles to the first crease line (6, 6'); the precut blank (1) being configured in such a way that, with respect to the outer face of the precut blank (1), bending upstream the first panel (7, 7'), the second panel (8, 8') and the third panel (10, 10') along the crease lines (6, 6', 9, 9'; 11, 11') between the central panel (2), the first, second and third panel (7, 7'; 8, 8'; 10, 10'), then bending upstream the first left shaped panel (130, 130') and the first right shaped panel (15, 15') along the respective third crease lines (14, 14', 18,

- 18', 16, 16', 20, 20'), in such a way as to block the first, second and third panel (7, 7'; 8, 8'; 10, 10') at right angles to each other and with respect to the central panel (2),
 and bending downstream the fourth panel (12, 12') along the crease line (13, 13') with the third panel (10, 10') and coupling it to the inner face of the central panel (2)
 a platform is obtained,
 the precut blank (1) being **characterised in that** each shaped portion (5, 5'), at the first, second and third panel (7, 7'; 8, 8'; 10, 10'), comprises a central part defined by two cut lines (25, 26; 25', 26'), parallel to the third crease line (14, 14', 18, 18', 16, 16', 20, 20'), and by two perimeter lines (27, 27'; 28, 28'), parallel to the crease line (6, 6') and each positioned, respectively, in the first (7, 7') and in the third (10, 10') panel, and
in that it comprises a first sub-panel (21, 21') made in the central part at a first perimeter line (27, 27'), the precut blank (1) being configured in such a way that when the pre-cut blank (1) is assembled as the platform,
 bending upstream with respect to the outer face of the precut blank (1) the first sub-panel (21, 21') along the respective first perimeter line (27, 27') it rests on the other perimeter line (28, 28') forming a lot between the legs of the platform for inserting the arms of a forklift truck.
2. The precut blank (1) according to the preceding claim, **characterised in that** it comprises a second sub-panel (22, 22') made in the central part at the second perimeter line (28, 28'),
 the precut blank (1) being configured in such a way that when the pre-cut blank (1) is assembled as the platform,
 bending upstream with respect to the outer face of the precut blank (1) the second sub-panel (22, 22') along the respective perimeter line (28, 28') it forms a supporting surface for the first sub-panel (21, 21').
 3. The precut blank (1) according to the preceding claim, **characterised in that** when the precut blank (1) is assembled as a platform the first sub-panel (21, 21') is coupled to the second subpanel (22, 22'), in particular by gluing.
 4. The precut blank (1) according to any one of claims 1 to 3, **characterised in that** the overall length of one or two sub-panels (21, 21', 22, 22') is less than the length of the two cut lines (25, 26; 25', 26'), in such a way as to leave an empty space (41) in the central part.
 5. The precut blank (1) according to any one of the preceding claims, **characterised in that** the first panel (7, 7') and the third panel (10, 10') comprise, on the

respective left sides, a first left shaped panel (130, 130') and a second left shaped panel (17, 17'), and on the respective right sides, a first right shaped panel (15, 15') and a second right shaped panel (19, 19'); and **in that** when the precut blank (1) is assembled as a platform, bending upstream, with respect to the outer face, the first left shaped panel (130, 130') and the second left shaped panel (17, 17'), along the respective crease lines (14, 14', 18, 18') in such a way that the first right shaped panel (15, 15') and the second right shaped panel (19, 19') engage with each other, in such a way that the first, second and third panel (7, 7'; 8, 8'; 10, 10') block with each other at right angles and with respect to the central panel (2).

6. The precut blank (1) according to any one of claims 1 to 4, **characterised in that** the first shaped panels (130, 130', 15, 15') each have a lateral tab (32, 32', 34, 34') divided by a crease line (33, 33' 35, 35') parallel to the third crease lines (14, 14', 18, 18', 16, 16', 20, 20'), designed to enclose in the leg of the platform when the precut blank (1) is assembled as a platform.
7. The precut blank (1) according to the preceding claim, **characterised in that** it comprises a second left lateral shaped panel (17, 17') and a second right lateral shaped panel (19, 19') at a third (10, 10') or first (7, 7') panel, and **in that** bending downstream, with respect to the outer face, the second lateral shaped panels (17, 17', 19, 19') of a shaped portion (5, 5') along the respective third crease lines (18, 18', 20, 20'), they engage with the other shaped portion (5', 5), further reinforcing the platform.
8. The precut blank (1) according to the preceding claim, **characterised in that** second lateral shaped panels (17, 17', 19, 19') have a slot (39), **in that** the central panel (2) has two lateral panels (3, 3') having a protrusion (40), and **in that** when the precut blank is assembled as a platform the protrusion (40) engages in the slot (39).
9. The precut blank (1) according to any one of the preceding claims, **characterised in that** it comprises a pair of notches and tabs (36 - 37) which are able to engage with each other to facilitate the blocking of the lateral shaped panels (130, 130', 15, 15', 17, 17', 19, 19') when the precut blank (1) is assembled as a platform.
10. The precut blank (1) according to any one of the preceding claims, **characterised in that** it is made with corrugated cardboard.
11. The precut blank (1) according to the preceding claim, **characterised in that** the corrugated card-

board is of type KSFSK/56265/BC, wherein:

K5: 200 g/m²

S6 (wave B): 210 g/m²

F2: 120 g/m²

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S6 (wave C): 225 g/m²

K5: 200 g/m²

Thickness of 7 mm.

12. A platform designed to be lifted by the arms of a forklift truck obtained bending the precut blank (1) according to any one of claims 1 to 11. 10

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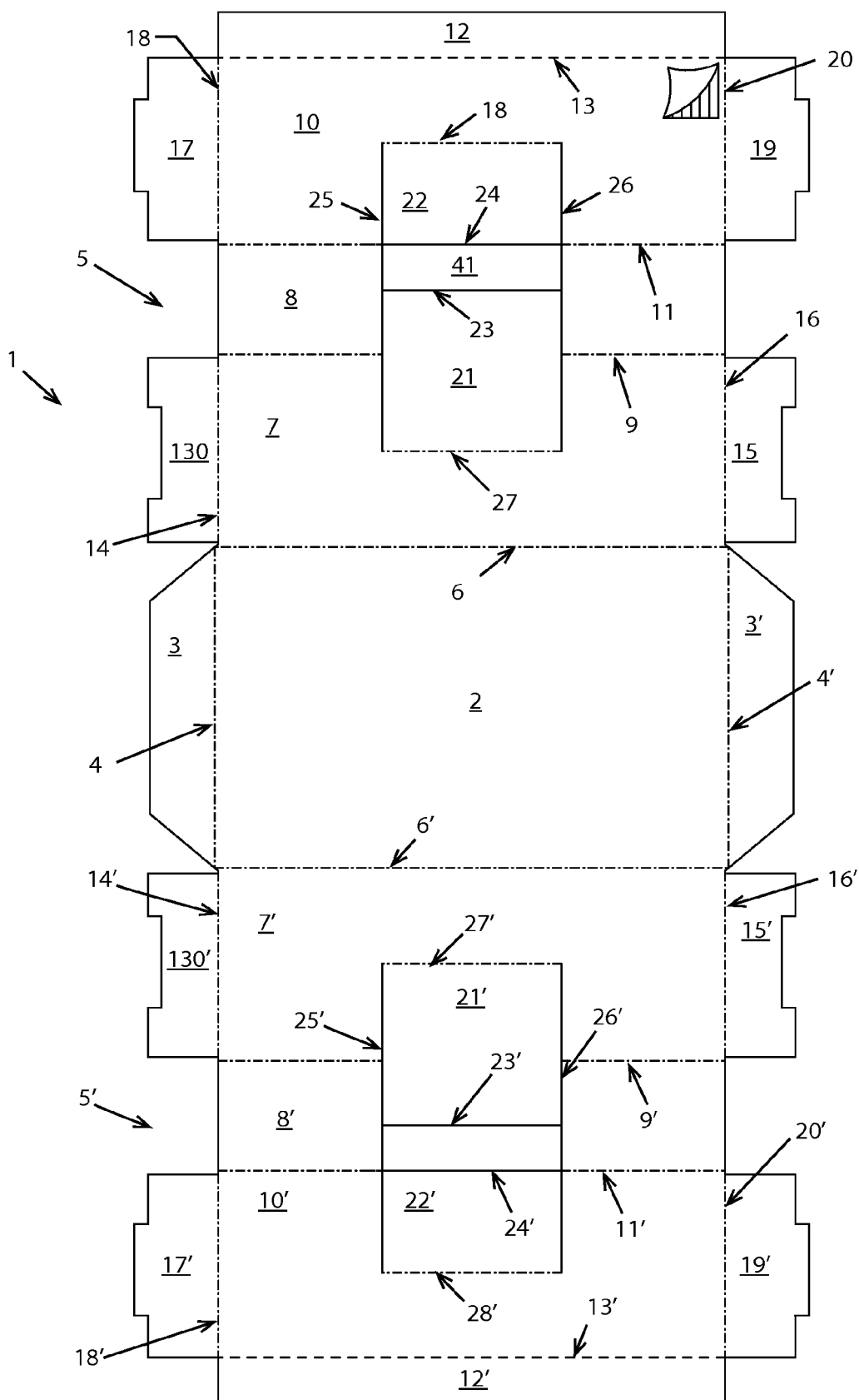


Fig. 1

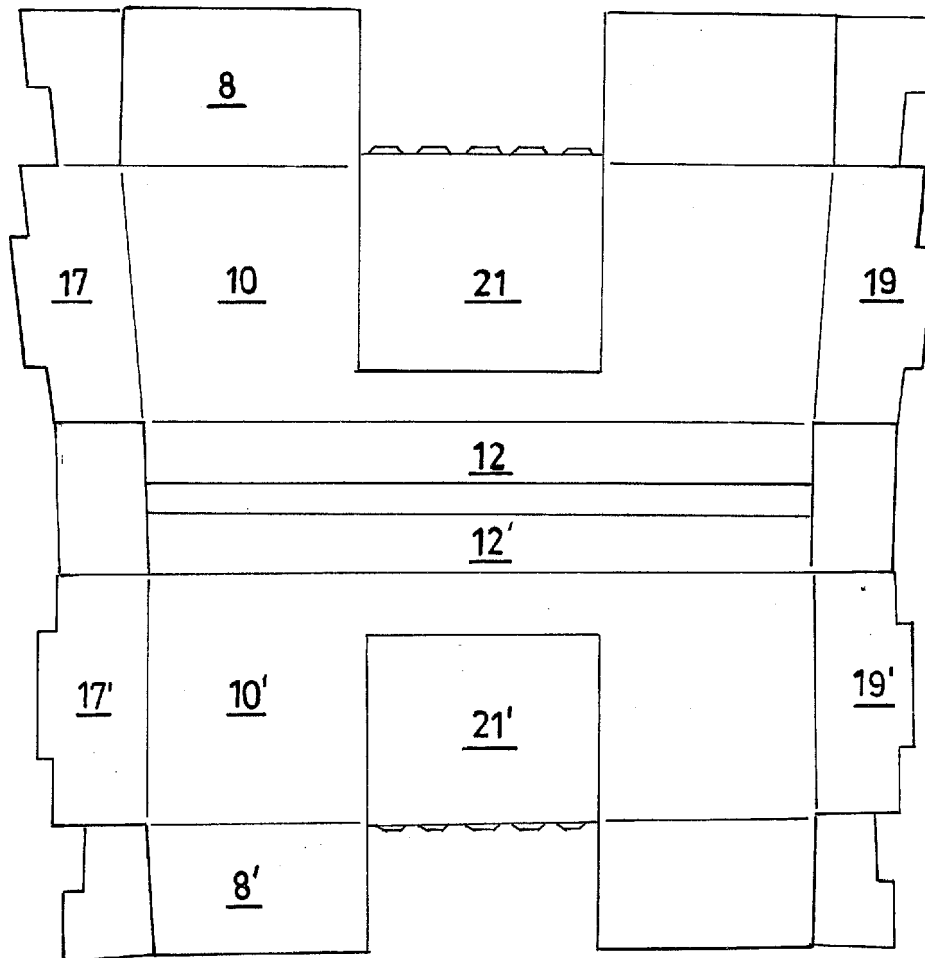


Fig. 2

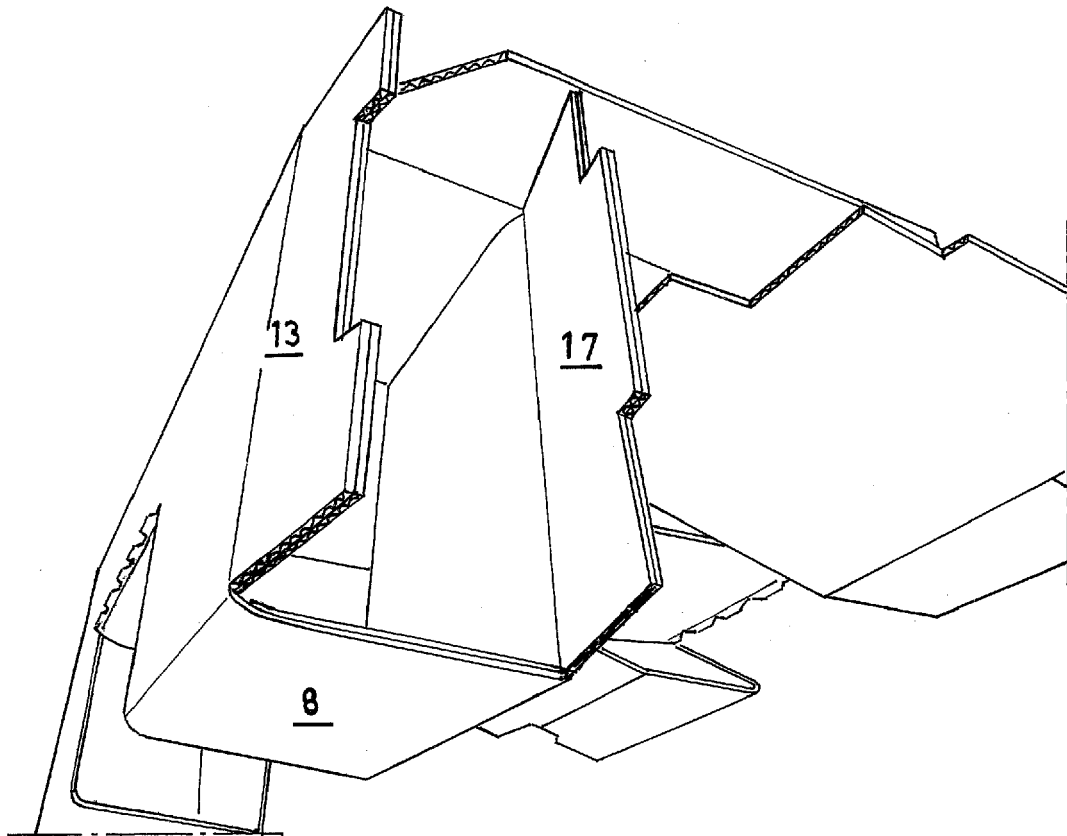


Fig. 3A

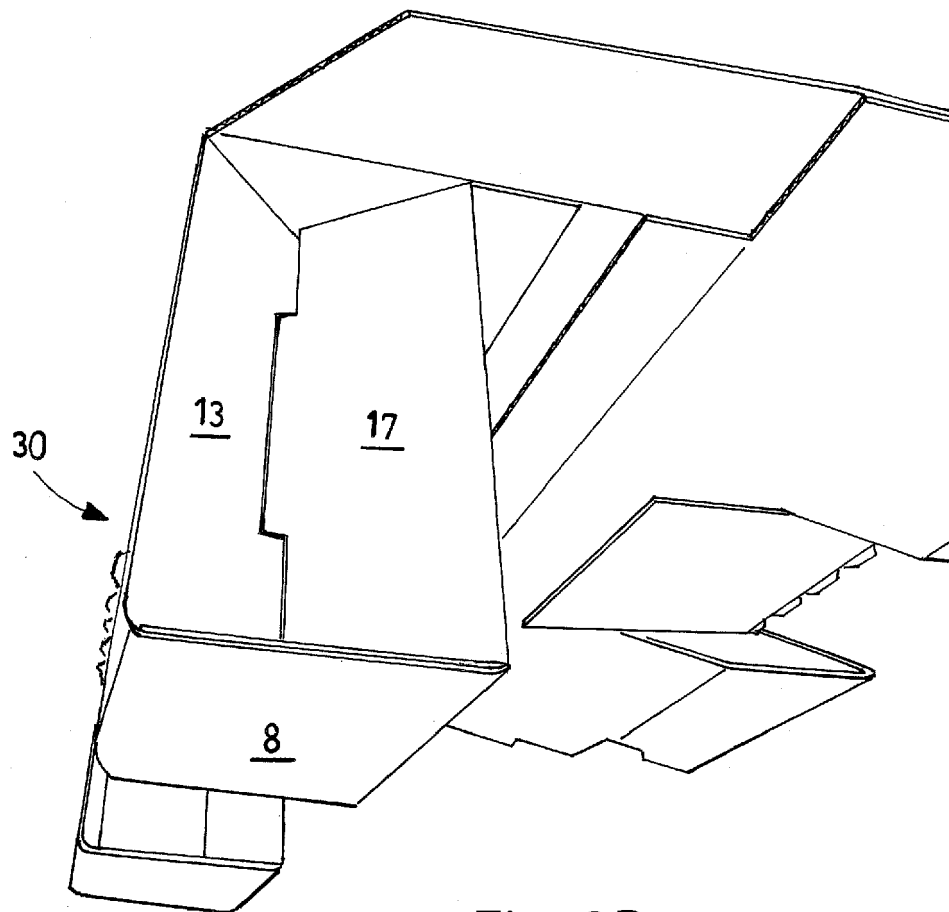


Fig. 3B

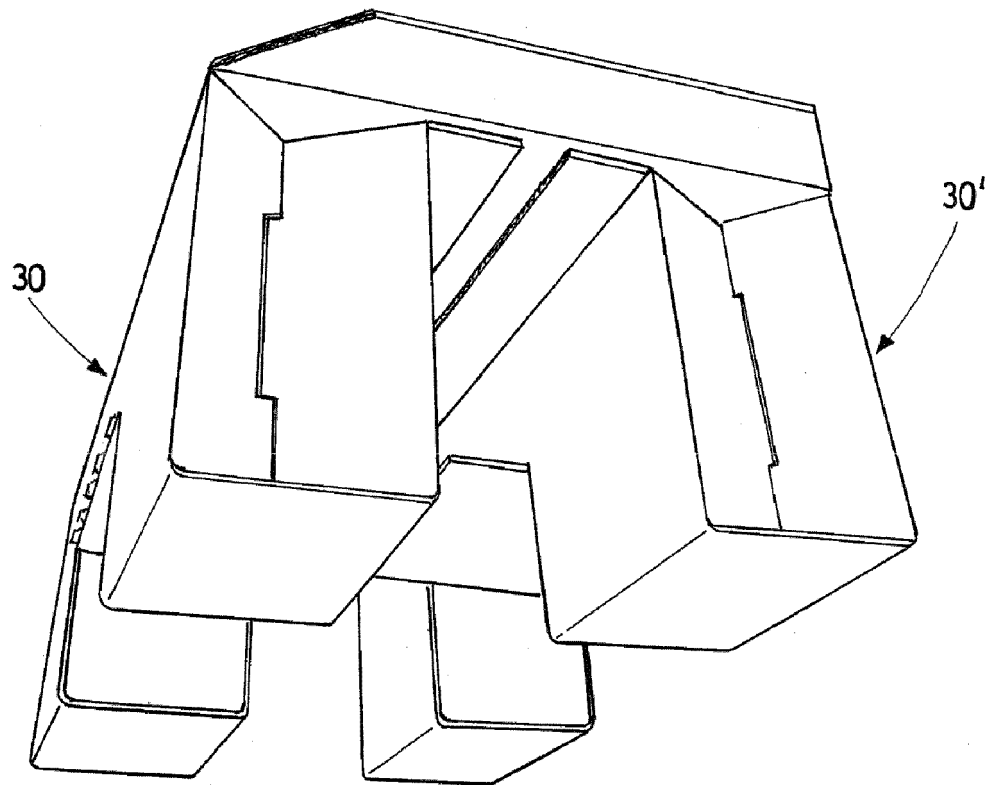


Fig. 4

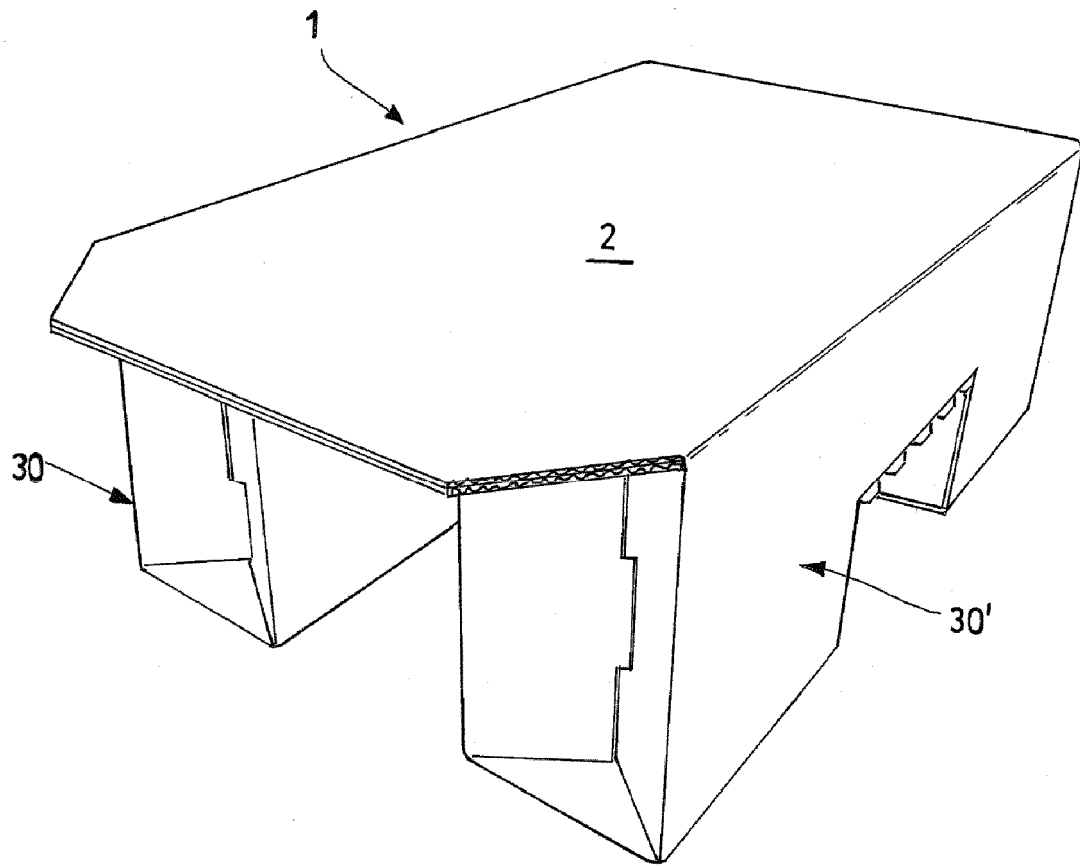


Fig. 5

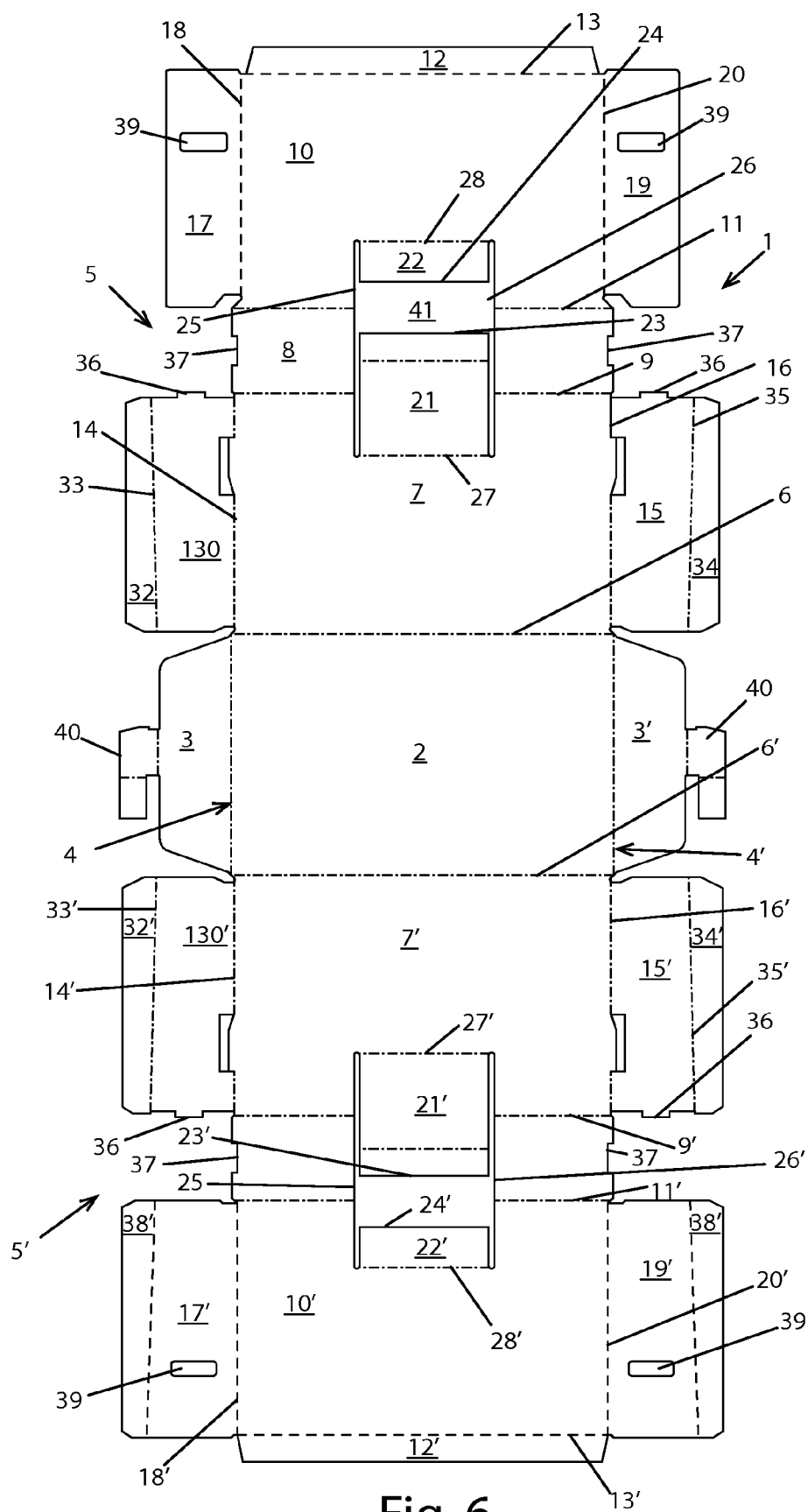


Fig. 6

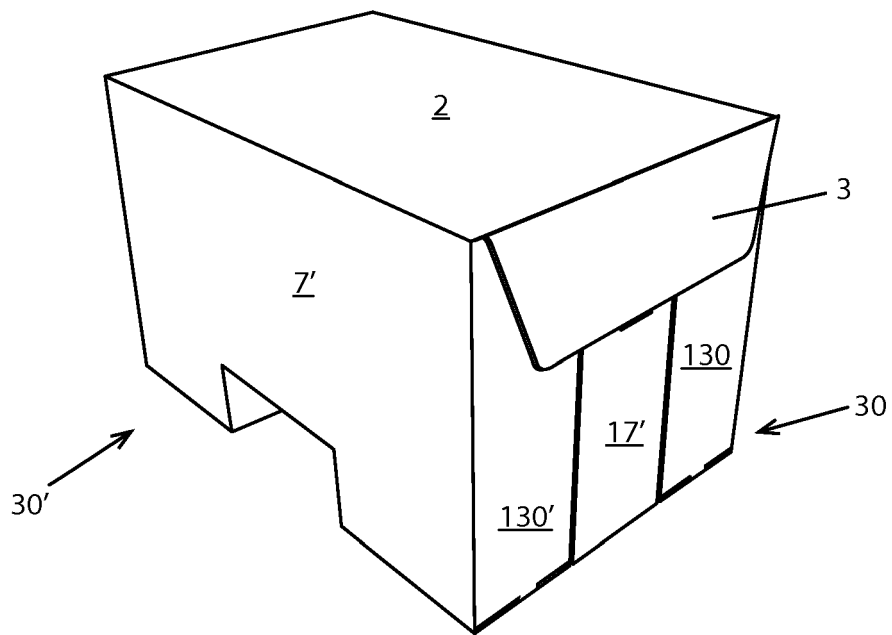


Fig. 7

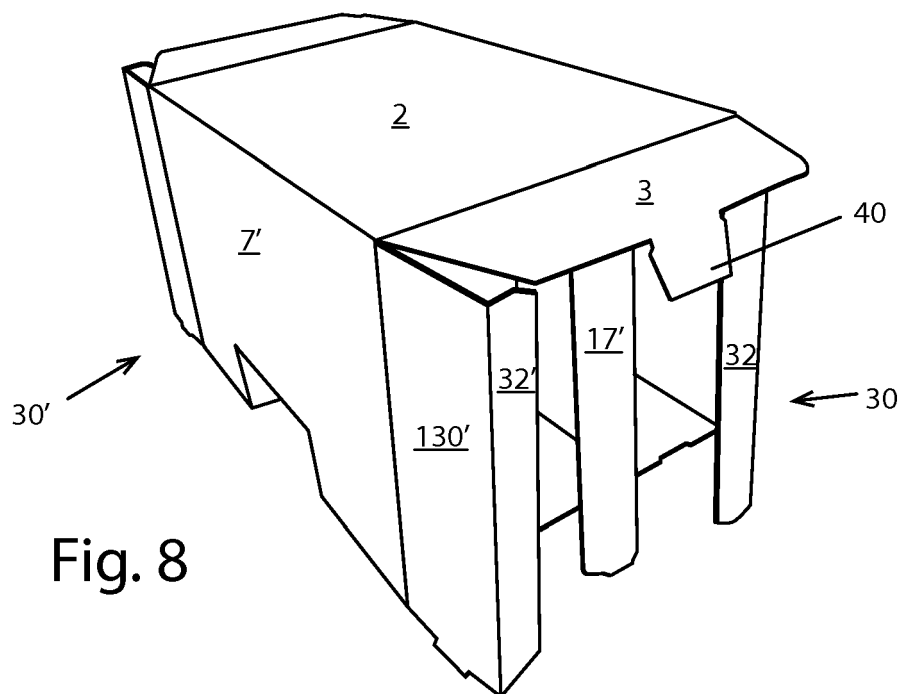
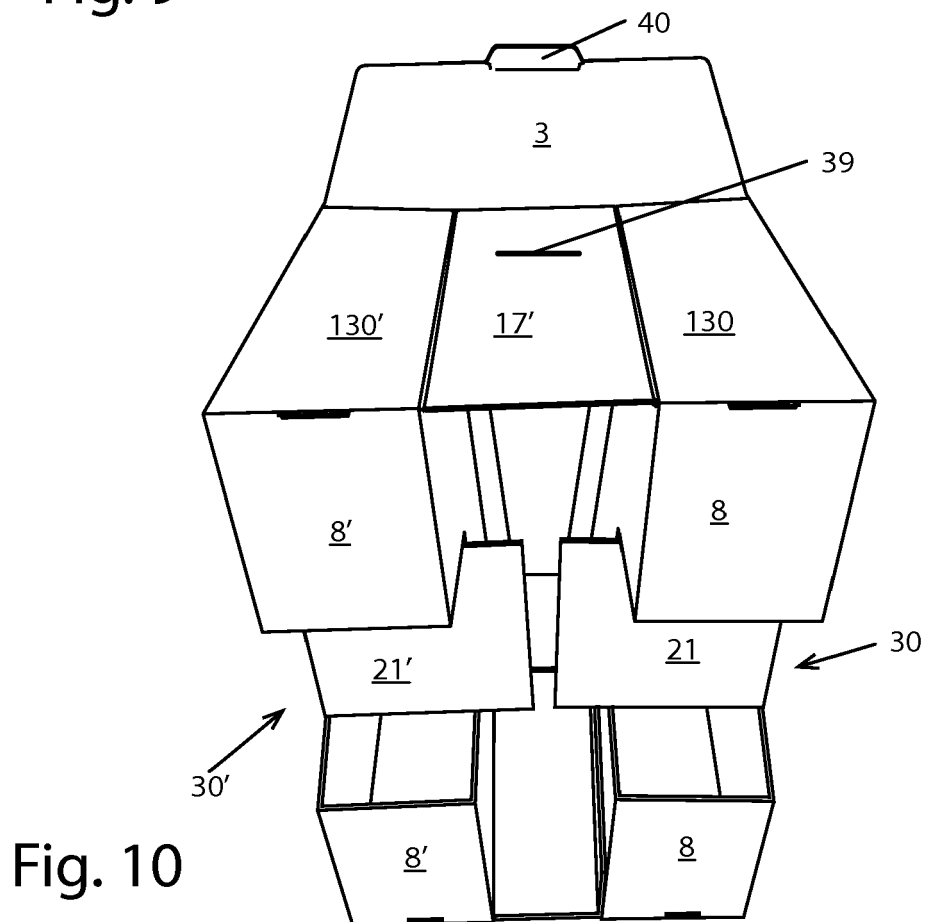
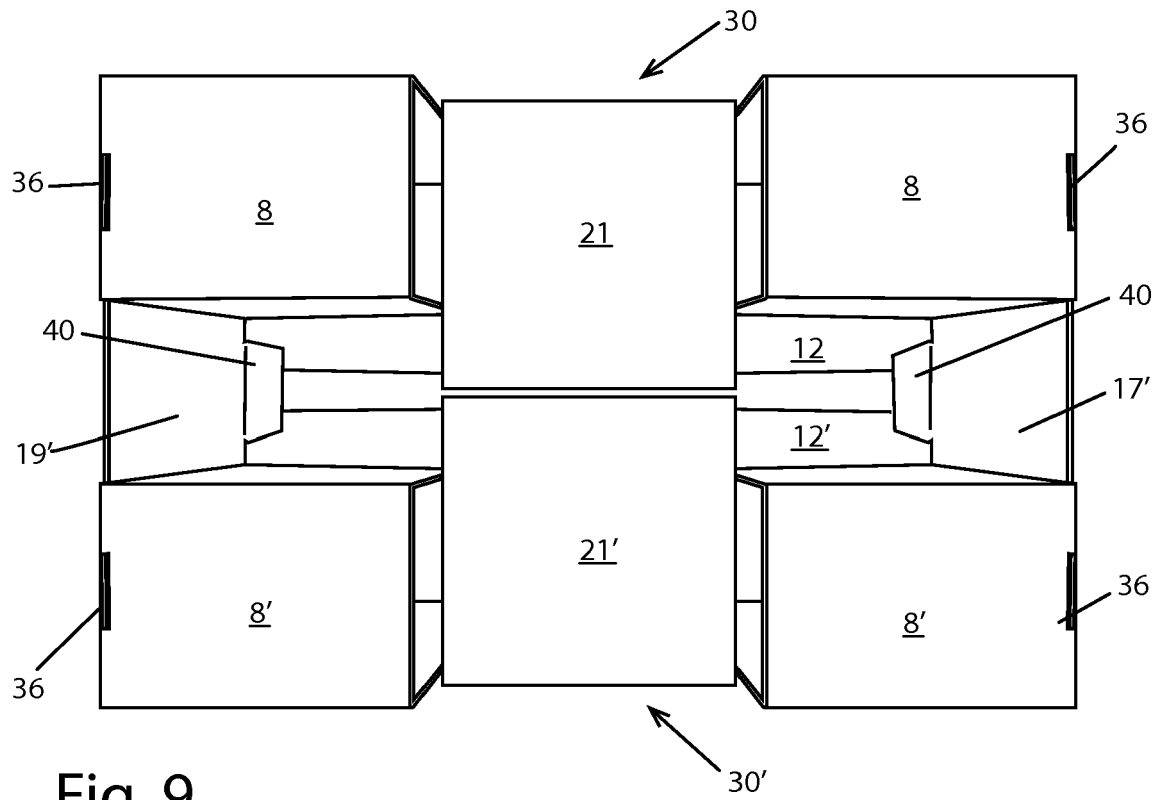
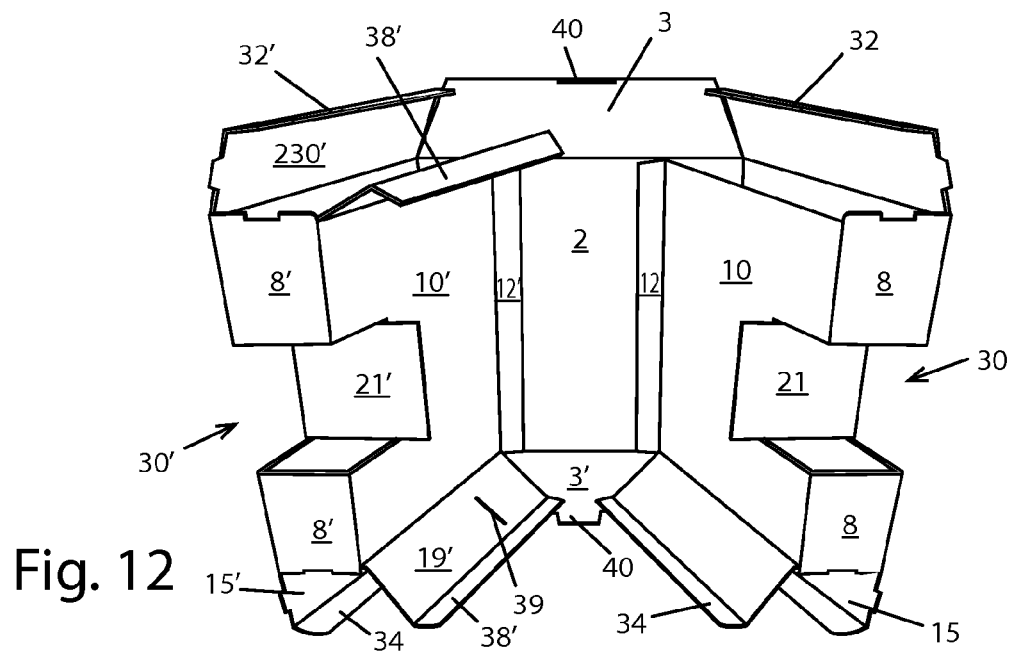
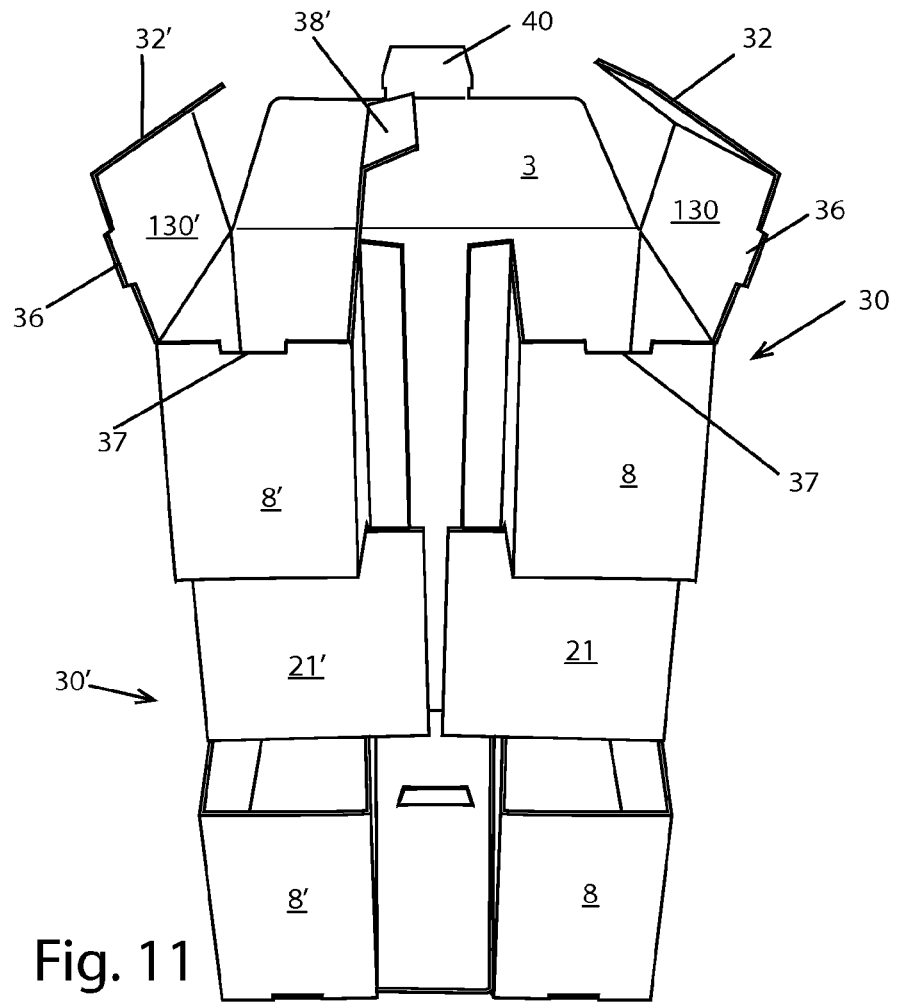


Fig. 8







EUROPEAN SEARCH REPORT

Application Number
EP 17 20 6006

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A	DE 10 2015 007205 A1 (SEYFERT GMBH [DE]) 1 December 2016 (2016-12-01) * paragraph [0021] - paragraph [0028] * * figures 1-8 *	1-12	
A	DE 40 34 481 A1 (KLINGELE PAPIERWERKE [DE]) 7 May 1992 (1992-05-07) * column 4, line 32 - column 5, line 9; figures 6,8 *	1-12	
A	WO 2013/136272 A1 (SCATOLIFICIO PORRETTANA SRL [IT]) 19 September 2013 (2013-09-19) * page 11 - page 19 * * figures 1-13 *	1-12	TECHNICAL FIELDS SEARCHED (IPC) B65D
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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 27 February 2018	Examiner Fitterer, Johann
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The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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