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(54) **Load Platform**

Ladeplattform

Plate-forme de chargement

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(73) Proprietor: **Tarpack S.L.
50004 Zaragoza (ES)**

(72) Inventor: **Rivera Ballarin, Carlos
50004 Zaragoza (ES)**

(74) Representative: **Carpintero Lopez, Francisco et al
Herrero & Asociados, S.L.
Alcalá 35
28014 Madrid (ES)**

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Description

[0001] The present invention refers to a load platform having an upper load surface of rectangular or square contour, and lower support elements between which spaces are determined through which the arms of a fork-lift or the like may be introduced.

[0002] The platform of the invention is made of plastic material, obtained by injection, and comprises a structure based on partitions and ribs which is upwardly closed by a continuous wall which will be the one defining the upper load surface.

[0003] Platforms of the type set forth are conceived to transport bodies of prismatic configuration which may be placed side by side and piled up. For example, this type of platforms is widely used in transporting crates of bottles of all types of beverages, especially soft drinks, beer, etc. In this activity and for the same type of beverages, containers in the shape of barrels of a metallic nature, with a great capacity, are used, and from which the drink is dispensed or distributed by means of a tap. The transport of these barrels is usually performed individually and not on load platforms, as would be desirable, given the limited stability that the barrels have on said load platforms due to the reduced dimensions of their resting base and the circular contour thereof.

[0004] A load platform, especially intended for transporting circular plan beverage-containing barrels, is known from DE 101 57 417 A1.

[0005] The object of the present invention is to eliminate the problems set forth by means of a platform allowing transporting a certain number of barrels and having means assuring the stability thereof.

[0006] Another object of the invention is a platform which, besides from serving for the safe transport of barrels, allows transporting crates, placed side by side and piled up, and all this such that the load surface of the platform is used in all its extent both for transporting barrels and crates.

[0007] To comply with the first object set forth, the upper load surface of the platform of the invention has a series of recesses of circular contour which reproduce the outer resting surface of the base of the beverage-containing barrels. These recesses are formed on the support surface of the platform such that they are consecutively tangential to one another and are distributed in rows parallel to its sides, and all this such that the load surface is virtually occupied in all its extent by said recesses, which demands that the sides of the contour of the surface are approximately multiples of the diameter of the resting base of the barrels. The platform will thus allow transporting a certain number of barrels, which are placed in a vertical position and which are virtually tangential to one another.

[0008] The shapings that the platform has consist of recesses, without any element intended for ensuring the stability of the barrels projecting from the load surface. The platform thus has a flat load surface in which, ac-

cording to another feature of the invention, the length of the sides of said surface is a multiple of the length of the sides of the crates used for transporting beverage bottles.

[0009] With the makeup set forth, the support surface of the load platform can be used virtually in its entirety both if barrels are transported and if crates are transported.

[0010] With the object of ensuring the stability of the barrels, the platform has, from the upper surface and in a position parallel and adjacent to its edges, ribs defining lateral supports or stops which will prevent the accidental sliding of the crates.

[0011] The recesses of circular contour ensuring the stability of the barrels include a central area, concave and of circular contour, which is configured to receive the resting of the central part of the bottom of the barrels, and around it a concentric channel on which the peripheral reinforcing ring of the bottom of said barrels rests.

[0012] As in the barrels used for the specified purpose, the outer surface of the bottom is slightly retracted with respect to the peripheral reinforcing ring of the bottom, in order for the resting on flat surfaces to be carried out through said ring and not the bottom of the barrel, the recessed central area on the platform will be of slightly less depth than the concentric annular channel, all this such that by placing a barrel on a recess, the resting thereon takes place through the reinforcing ring and partially through the bottom of the barrel, all this in order to achieve maximum stability.

[0013] On the other hand, in the platform of the invention, the ribs projecting from the upper load surface, parallel and close to the sides thereof and which are intended for ensuring the placement of the crates, also serve to ensure the piling up of platforms during their storage and transport.

[0014] For greater safety in the transport of the barrels, the platform may be completed with an upper cover, adaptable to the upper base of said barrels.

[0015] The features of the invention will be better understood with the following description, made with reference to the attached drawings, in which a non-limiting embodiment example is shown.

[0016] In the drawings:

Figure 1 shows a top perspective view of a load platform made up according to the invention.

Figure 2 shows a bottom perspective view of the same platform.

Figure 3 shows a top plan view of the platform of Figure 1.

Figure 4 shows a cross sectional view of the platform, taken according to section line IV-IV of Figure 3.

Figure 5 corresponds to detail A of Figure 4.

Figure 6 shows a perspective view similar to that of Figure 1, with the platform completely occupied by a set of barrels.

Figure 7 shows a view similar to that of Figure 5, showing the way of coupling and resting the bottom

of the barrels on the platform recesses.

Figure 8 shows a similar perspective view to that of Figure 6, with the platform completely occupied by a set of crates.

Figure 9 shows a view similar to that of Figure 7, showing the retaining system of the crates by the peripheral ribs of the platform.

Figure 10 shows a top perspective view of two piled platforms.

Figure 11 shows a view similar to that of Figure 6, including an upper retaining cover.

[0017] As can be seen in Figures 1 and 2, the platform of the invention comprises a panel 1, from the lower surface of which project support elements 2 between which spaces 3 and 3' are delimited, through which the arms of a forklift or the like may be introduced. The spaces 3' may be closed at the bottom by a section running between adjacent projections 2.

[0018] Both the panel 1 and the projections 2 present at the bottom a structure formed based on partitions and ribs, which is enclosed by a continuous upper wall 5 which will define the load surface of the platform. Said structure based on partitions and ribs can be seen in Figure 2. The contour of the platform will be preferably rectangular, although it could also be a square contour.

[0019] According to the invention, the load surface 5 has a series of recesses 6 of circular contour, consecutively tangential to one another and distributed in rows and columns parallel to the edges of said surface, as can best be seen in Figure 3, these recesses include a central area 7 of concave surface, and a concentric annular channel 8. These central area 7 and annular channel 8 reproduce the outer surface of the base of beverage-containing barrels 9, Figure 4.

[0020] The central area 7 of the recesses is shaped to receive the coupling and resting of the outer surface of the bottom 10 of the barrels, Figure 7, whereas the peripheral channel 8 is configured to receive the coupling and resting of the peripheral reinforcing ring 11 of the bottom of said barrels.

[0021] With this makeup, a set of barrels can be arranged in a vertical position and tangential to one another on the load surface 5 of the platform 1, as can be seen in Figure 6, all of them coupled on corresponding recesses 6, thus providing stability to this barrel arrangement on the load platform 1 in order to safely facilitate their transport thereon.

[0022] The length and width of the load surface will be multiples of the diameter of the recesses 6.

[0023] The shapings ensuring the stability of the barrels 9 consist of recesses, such that the load surface 5 is kept flat in order to allow correct support of crates 12, Figure 9, the length and width of the load surface 5 being a multiple of the length and width of the base of the crates 12, such that on each load platform a number of crates 12 may be arranged, placed side by side and occupying all of said surface, as can be seen in Figure 8.

[0024] In order to provide stability to the arrangement of this set of crates 12, the load surface 1 has, in a parallel and adjacent position to the free edges, ribs 13 which, as can be seen in Figure 9, serve as a lateral stop or support of a peripheral recess or step 14 that the crates 12 have on their base. Furthermore, these ribs 13 may serve to ensure the piling up of some platforms on top of others, as shown in Figure 10.

[0025] In short, the invention allows having a platform on which both crates 12 of prismatic configuration and cylindrical barrels 9 may be transported with complete stability, making use of the entire load surface.

[0026] Finally, in order to achieve greater safety in transporting and handling platforms with barrels, a cover 19 may be coupled on top of the set of barrels 9, Figure 11, provided on its inner surface with shapings adaptable to the upper base of the barrels. For example, of projecting portions 20 insertable in the upper ring 21, Figure 6, and longitudinal ribs 22 on which said rings outwardly rest. On the back of the cover, which is the surface seen in Figure 11, the ribs 22 and the projections 20 translate into corresponding recesses.

Claims

1. A load platform, especially intended for transporting circular plan beverage-containing barrels, comprising an upper load surface (5) of rectangular or square contour and lower support elements (2), the upper load surface having series of recesses (6) of circular contour which reproduce the resting surface of the base of said barrels, the recesses of which are consecutively tangential to one another and are distributed in rows and columns parallel to its sides, **characterised in that** the length of the sides of said surface (5) is a multiple of the length of the sides of the base of crates for transporting beverage bottles, with ribs (13) defining lateral supports or stops against the sliding of said crates projecting from said surface in a position parallel and adjacent to its edges.
2. A platform according to claim 1, **characterised in that** each said recess (6) comprises a concave central area (7), shaped to receive the resting of the central part of the bottom of the barrel, and around it a concentric channel (8) on which the reinforcing peripheral ring at the bottom of said barrels rests.
3. A platform according to claim 1, **characterised in that** it further comprises a cover (19) provided on its inner surface with shapings (20-22) which can be coupled on the upper base of the barrels.

Patentansprüche

1. Lastplattform, die insbesondere für den Transport

von kreisförmigen, ebenen, Getränke enthaltenden Fässern vorgesehen ist, enthaltend eine obere Lastfläche (5) mit rechteckigem oder quadratischem Umriss und untere Tragelemente (2), welche obere Lastfläche eine Reihe von Vertiefungen (6) mit kreisförmiger Kontur aufweist, die die Auflagefläche der Basis der Fässer darstellen, wobei die Vertiefungen aufeinander folgend tangential zueinander sind und in Reihen und Spalten parallel zu den Seiten angeordnet sind, **dadurch gekennzeichnet, dass** die Länge der Seiten der Fläche (5) ein Vielfaches der Länge der Seiten der Basis von Kisten zum Transport von Getränkeflaschen ist, wobei Rippen (13) seitliche Halter oder Anschläge gegen das Verrutschen der Kisten bilden und von der Fläche in einer zu ihren Rändern parallelen und benachbarten Position vorspringen.

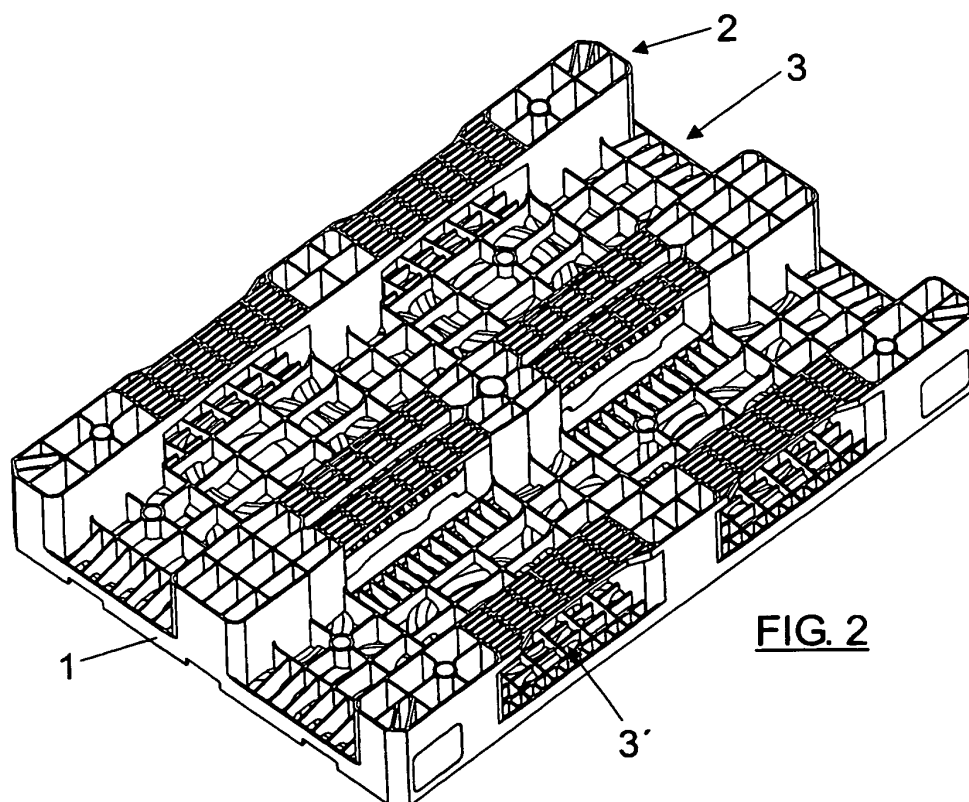
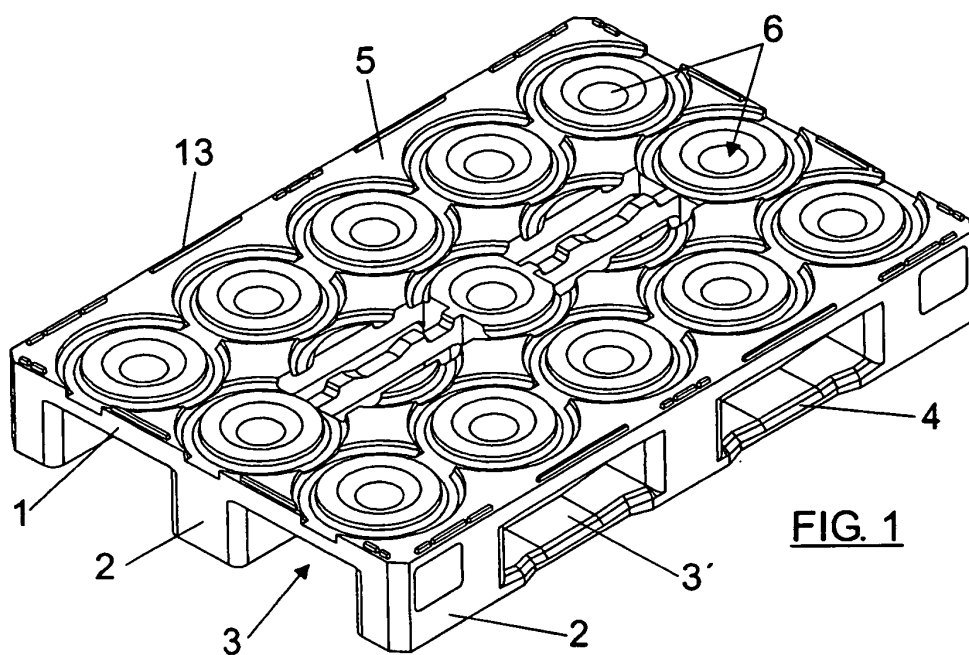
2. Plattform nach Anspruch 1, **dadurch gekennzeichnet, dass** jede der Vertiefungen (6) einen konkaven Zentralbereich (7) aufweist, der so geformt ist, dass er die Auflage des Mittelteils des Fassbodens aufnimmt, und um diesen eine konzentrische Nut (8) gebildet ist, auf der der verstärkende Umfangsring am Boden des Fasses aufliegt.
3. Plattform nach Anspruch 1, **dadurch gekennzeichnet, dass** sie ferner eine Abdeckung (19) enthält, die an ihrer Innenfläche mit Formstücken (20-22) versehen ist, die mit der oberen Basis der Fässer gekoppelt werden können.

Revendications

1. Plate-forme de chargement, destinée spécialement à transporter des fûts circulaires plans contenant des boissons, comprenant une surface de chargement supérieure (5) d'un contour rectangulaire ou carré et des éléments de support inférieurs (2), la surface de chargement supérieure comportant une série d'évidements (6) d'un contour circulaire qui reproduisent la surface d'appui de la base desdits fûts, dont les évidements sont consécutivement tangentiels les uns aux autres et sont distribués en rangées et en colonnes parallèles à ses côtés, **caractérisée en ce que** la longueur des côtés de ladite surface (5) est un multiple de la longueur des côtés de la base de caisses à claire-voie pour transporter les bouteilles de boisson, avec des nervures (13) définissant des supports ou arrêts latéraux contre le coulisement desdites caisses à claire-voie faisant saillie de ladite surface dans une position parallèle et adjacente à ses bords.
2. Plate-forme selon la revendication 1, **caractérisée en ce que** chaque évidement précité (6) comprend une zone centrale concave (7) configurée pour re-

cevoir le support de la partie centrale du fond du fût, et autour de celui-ci un canal concentrique (8) sur lequel la bague périphérique de renforcement au fond desdits fûts repose.

3. Plate-forme selon la revendication 1, **caractérisée en ce qu'elle** comprend en outre un couvercle (19) présentant sur sa surface intérieure des configurations (20-22) qui peuvent être couplées à la base supérieure des fûts.



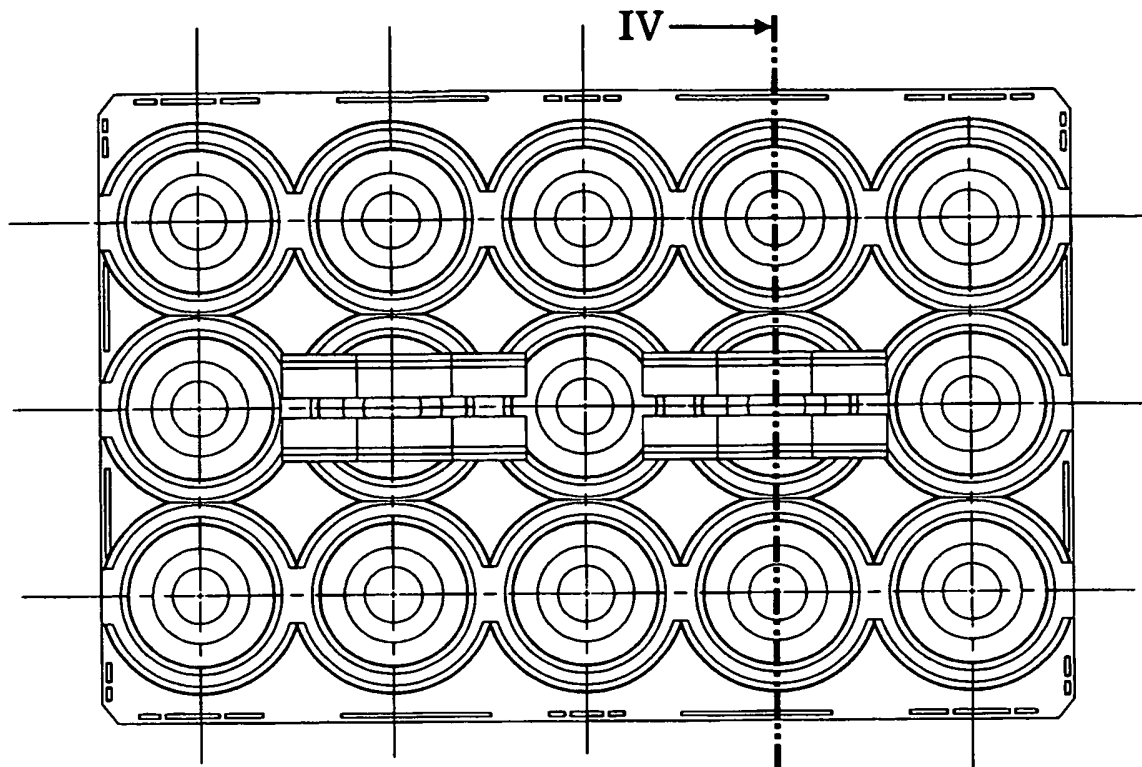


FIG. 3

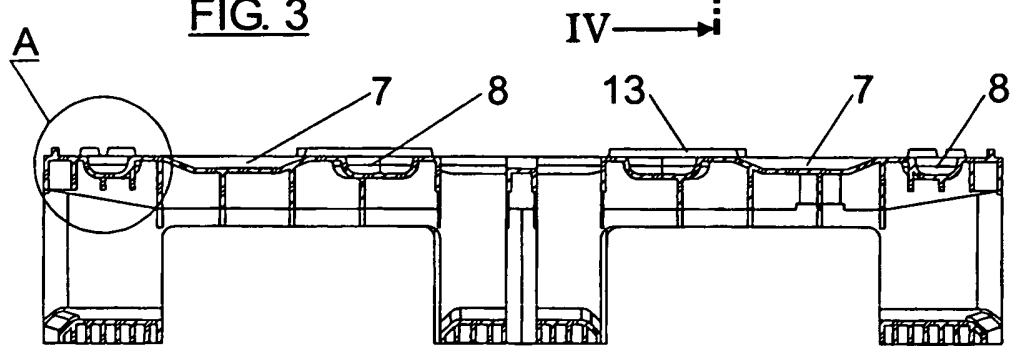


FIG. 4

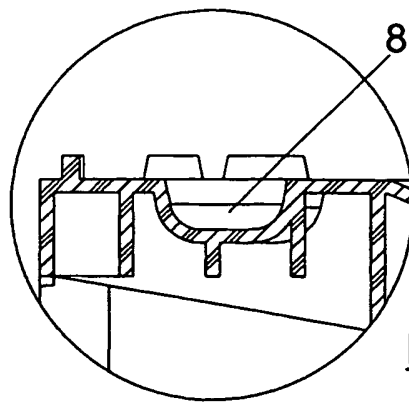
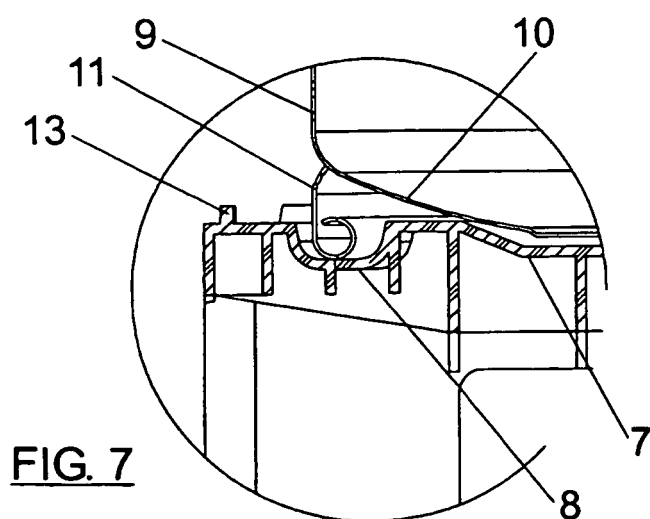
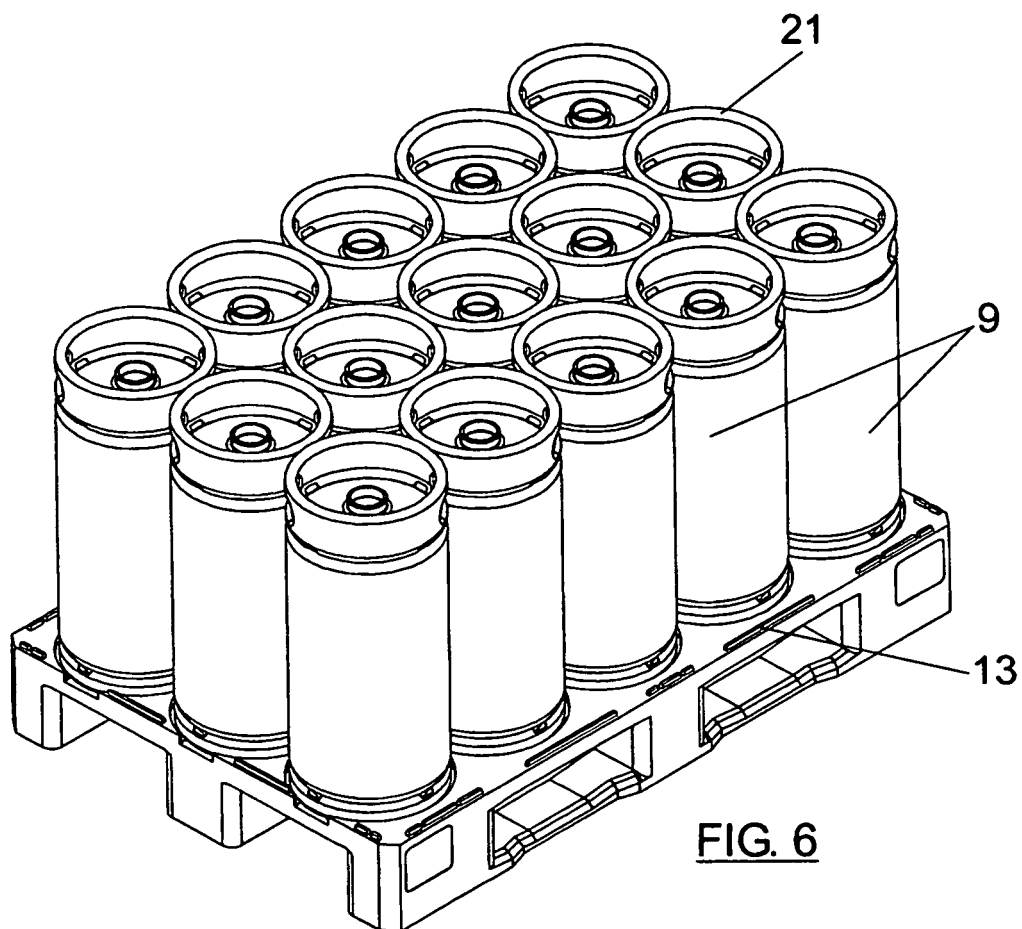


FIG. 5



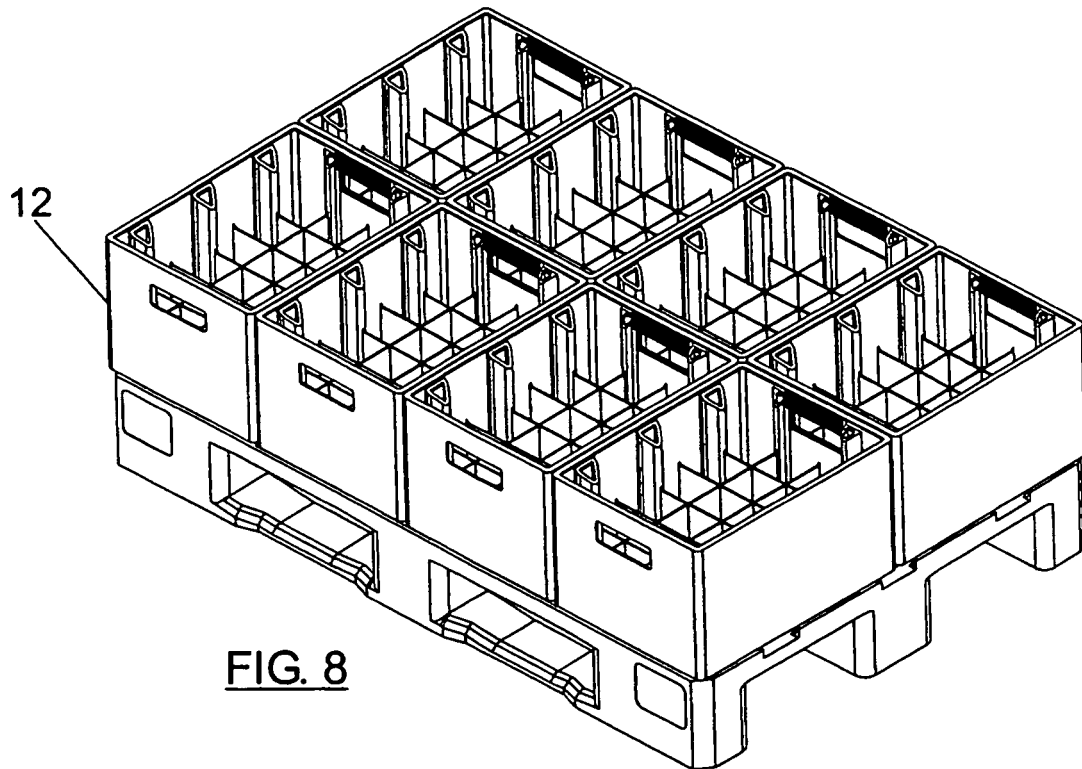


FIG. 8

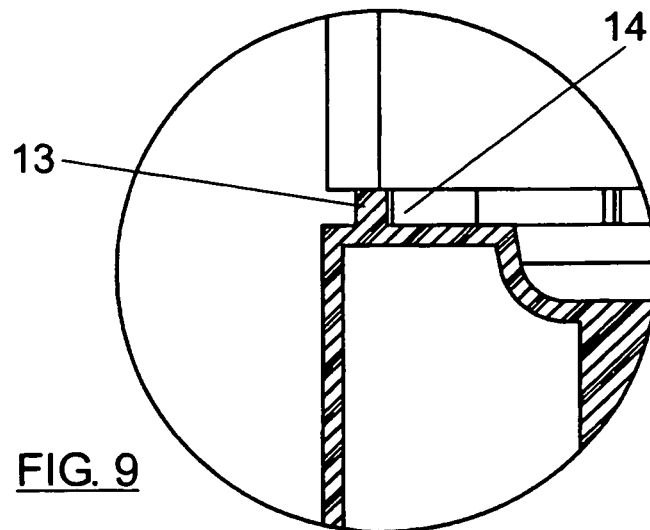


FIG. 9

- C -

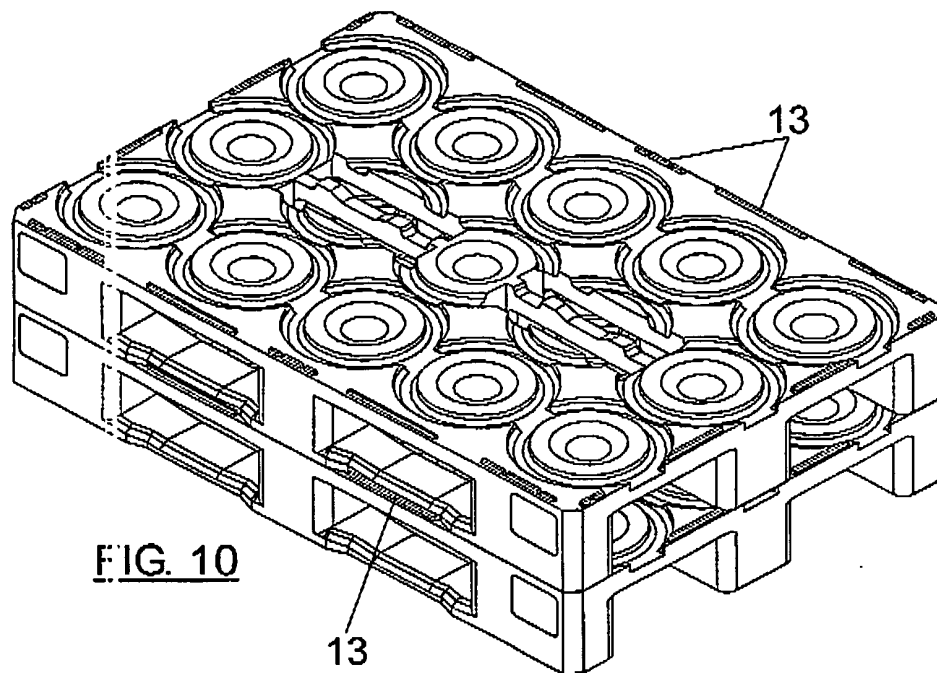


FIG. 10

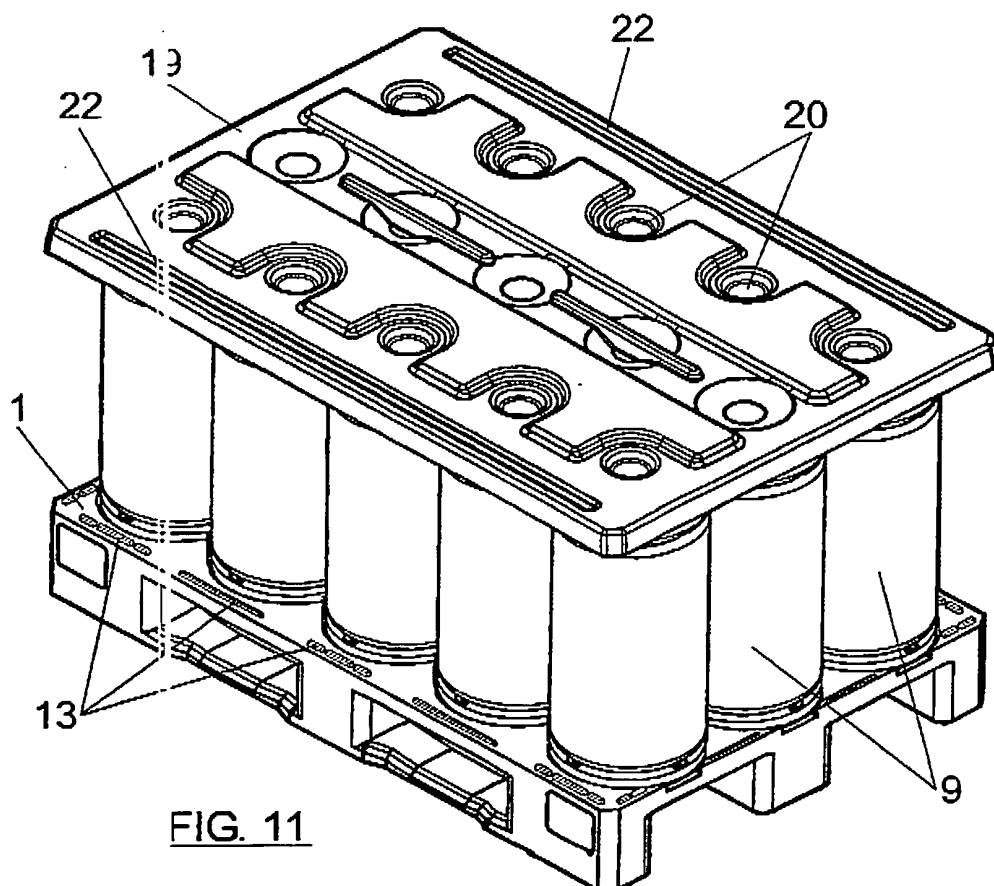


FIG. 11

REFERENCES CITED IN THE DESCRIPTION

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