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3,298,327

MATERIALS HANDLING PALLET

Filed June 25, 1965

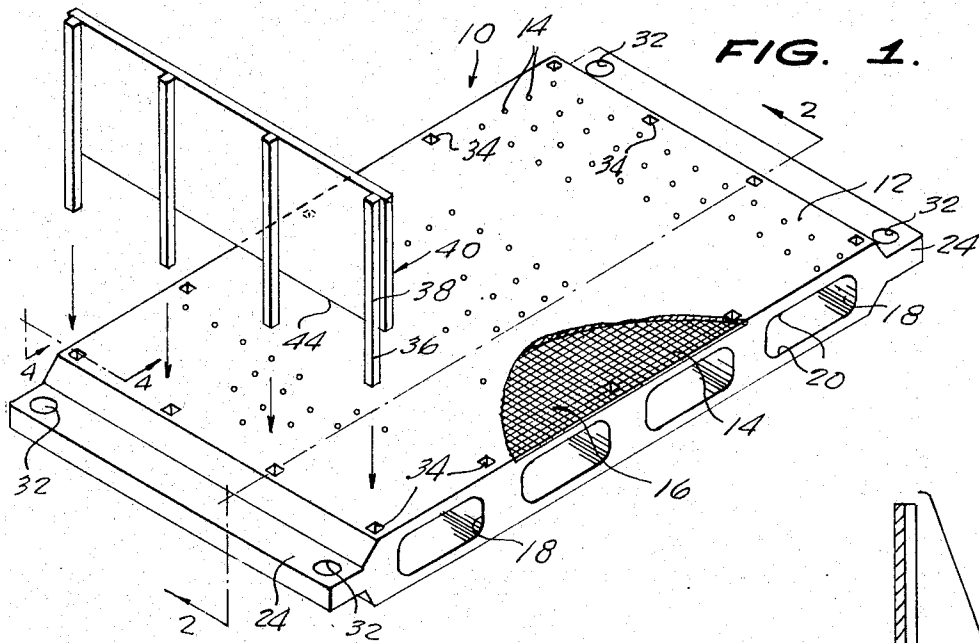


FIG. 2.

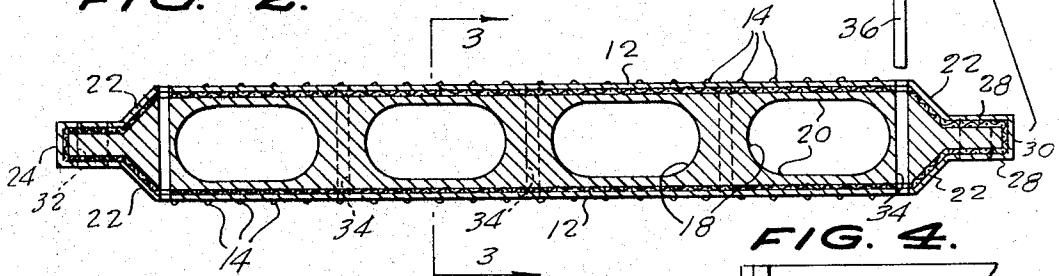


FIG. 4.

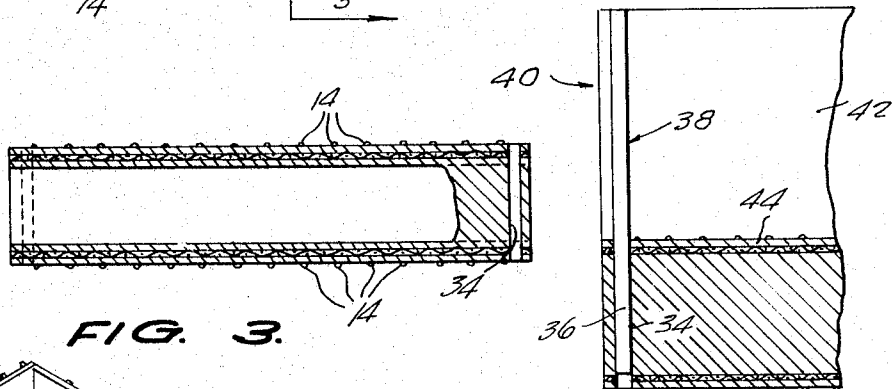


FIG. 3.

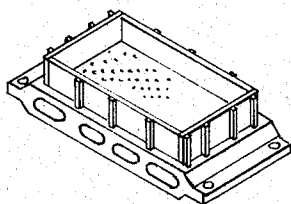


FIG. 5.

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MATERIALS HANDLING PALLET
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This invention relates to a pallet for hoisting devices which is usable in reversed positions.

The primary object of the invention is the provision of a generally superior device of the kind indicated which, because of its reversibility, is capable of a longer useful life, the device being of lightweight, cored construction and preferably made of plastic or other lightweight non-corrosive material, in the interests of resistance to deterioration in hostile climates and reduction in burden upon hoisting devices.

Another object of the invention is the provision of a device of the character indicated above, wherein the burden-bearing surfaces of the device are rendered non-slip and resistant to wear, by the formation thereon of anti-skid projections, with which the loads imposed upon the device are mainly in contact.

A further object of the invention is the provision of a device of the character indicated above, wherein the bodies thereof, at the ends and intermediate parts thereof, are provided with vertical bores extending therethrough, in which posts of load-confining end panels are adapted to be removably engaged in reversed positions of the device, so as to form containers on the pallet, and wherein the ends of the body of the device are formed with vertically-centered ribs which are formed with openings to receive the hooks of hoisting devices, the said ribs also being serviceable as contact areas for fork-lift hoisting devices.

In the drawing:

FIGURE 1 is an exploded perspective view of a device of the invention, and an end panel thereof;

FIGURE 2 is a longitudinal section taken on the line 2—2 of FIGURE 1;

FIGURE 3 is a transverse section taken on the line 3—3 of FIGURE 2;

FIGURE 4 is an enlarged fragmentary section taken on the line 4—4 of FIGURE 1; and

FIGURE 5 is a perspective view on a reduced scale, showing panels applied to the pallet to form a container.

Referring in detail to the drawing, the illustrated device comprises a solid flat, generally rectangular, longitudinally-elongated body 10, preferably of monolithic form, and preferably of plastic material, such as Fiberglas, having some limited flexibility and compressibility in the interest of some conformance, under load stresses, to the loads carried thereby, and in the interest of reduction of contacts destructive to itself and/or to adjacent objects.

The body 10 has flat, parallel opposed load surfaces 12 which constitute the related boundaries of the body, in which are embedded below the surfaces thereof, reinforcing metallic components, such as steel grids 16, the latter being extended along the surfaces 12. The surfaces 12 are formed with spaced upstanding non-skid projections 14 which act to prevent slippage of loads thereon.

The body 10 is cored in the interest of reduction of over-all weight of the device, and in the interest of giving

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the device limited flexibility and compressibility. In the illustrated device, this coring is produced by forming the body 10 with similar, equally, longitudinally-spaced, transverse oblong bores 18 extending therethrough, whose flat sides 20 are parallel to and equally-spaced from and close to the related surfaces 12 of the body 10. The bores 18 have their greatest widths of cross-section disposed longitudinally of the body 10.

The body 10 has oppositely-beveled or reduced end portions 22 which merge into ribs or flanges 24 which are disposed on the central longitudinal plane of the body, and have flat, parallel opposed surfaces 26. The grids 16 are extended into the ribs or flanges and around their ends, as indicated at 28 and 30 respectively, so as to serve as reinforcements. The ribs or flanges 24 are formed, at their ends, with openings 32 adapted to receive the hooks (not shown) of lifting devices. The opposed surfaces of the ribs or flanges also can serve as bearing surfaces for the lifting members of fork-lift devices, or the like.

The body 10 is formed therethrough, at equally-spaced intervals along the side edges of the body, and at equally-spaced intervals between the adjacent bores 18 and between end bores 18 and the ends of the body, in rows across the body, with polygonal cross-sectional perpendicular bores 34, which are adapted to removably receive the lower end portions 36 of vertical, polygonal posts 38 of end panels 40 which are designed to retain loads on the device, and for this purpose to be selectively positioned along and across the body 10 so as to define a container C. The panels 40 comprise transversely-elongated vertical plates 42, to whose outer sides the upper parts of the posts 38 are suitably fixed. The lower edges 44 of the plates 42 are adapted to bear upon the then upper surface of the body 10, as indicated in FIGURE 4.

While the reinforcing components of the illustrated device are stated as being steel grids, it will be evident that components of suitable resilient material other than steel are contemplated, and that these might include cables, and the like.

What is claimed is:

1. A materials handling pallet comprising an elongated solid body having spaced side edges and an end edge extending between and connecting each of the complementary ends of said side edges together, said body having upper and lower faces which are flat and extending over the entire area defined by the side and end edges, there being a plurality of transversely-disposed bores arranged between and parallel to said end edges and opening out of said side edges, a rib extending along and projecting from each end edge, a grid embedded in said body and extending beneath and along and about said faces and said ribs, said ribs being formed with openings adapted to receive hooks of lifting devices, said body being provided with a plurality of transversely-disposed rows of polygonal holes positioned between and parallel to said ribs adapted to removably-receive the lower end portions of polygonal posts of end panels to thereby form enclosures between the end panels when mounted in said holes.

2. The materials handling pallet according to claim 1, wherein each end edge is beveled and wherein the adjacent rib is of reduced cross-section, the ribs each projecting from the beveled end edge.

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3. The materials handling pallet according to claim 2 which includes in addition non-skid projections which project exteriorly from each of said upper and lower faces.

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