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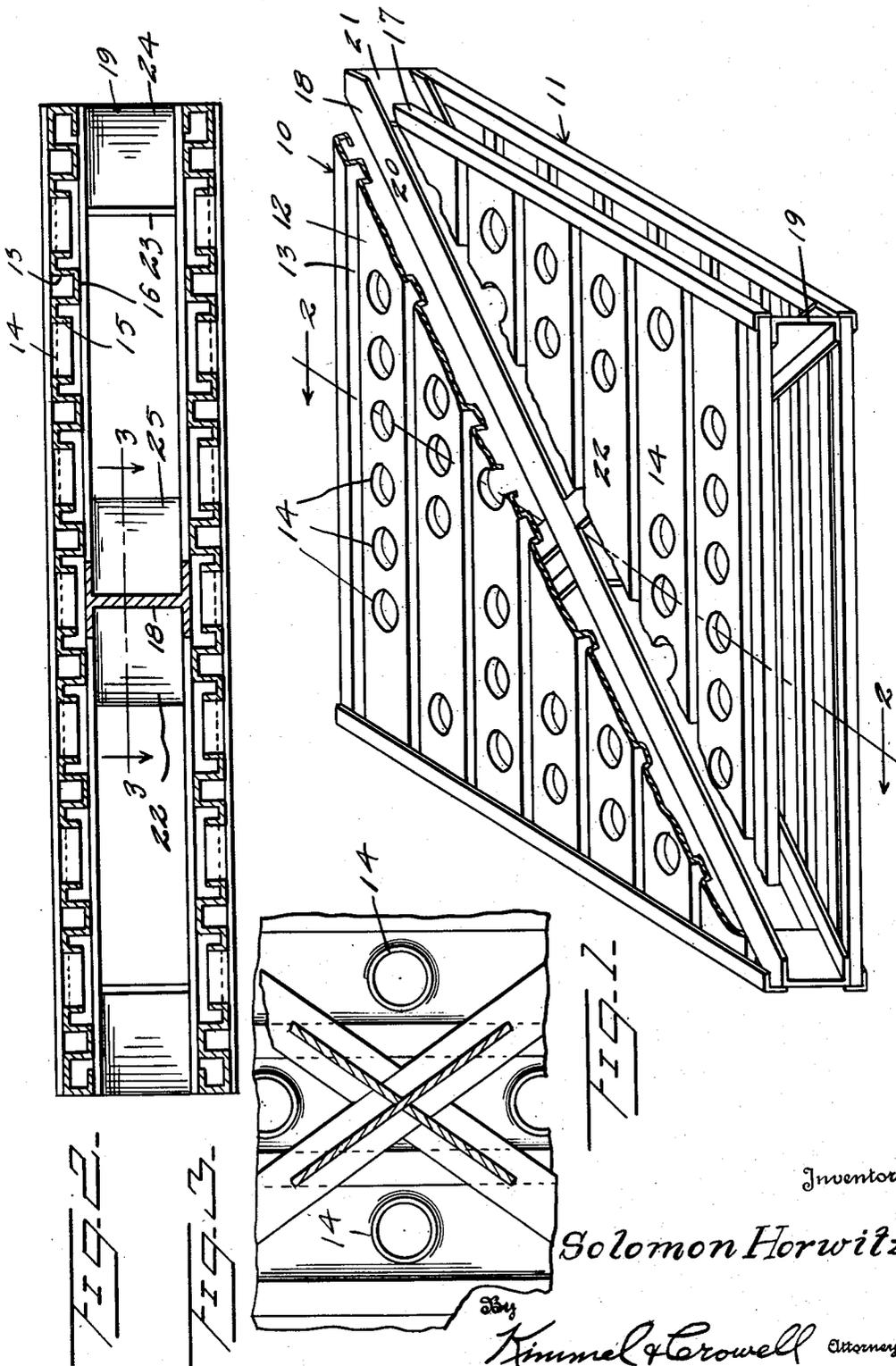
S. HORWITZ

2,486,284

PALLET

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2 Sheets-Sheet 1



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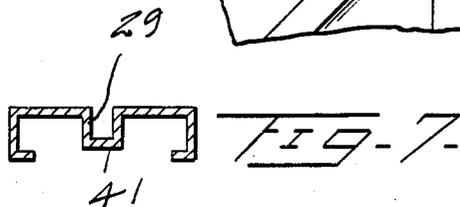
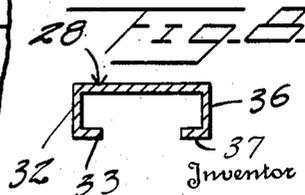
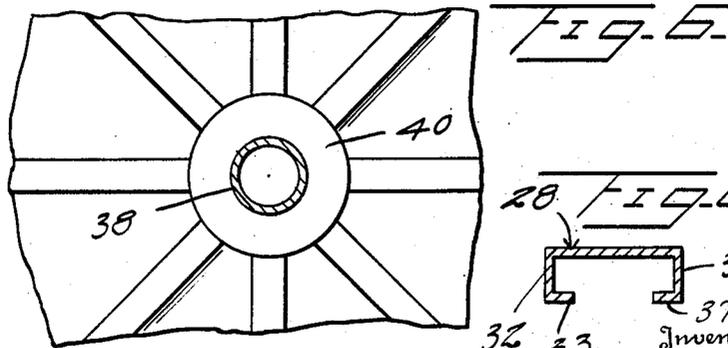
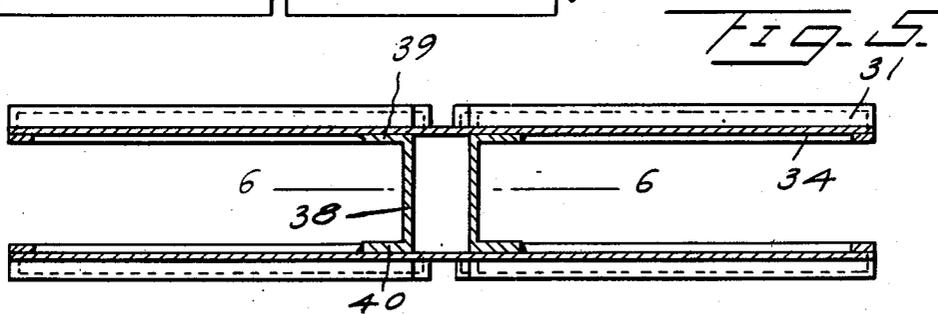
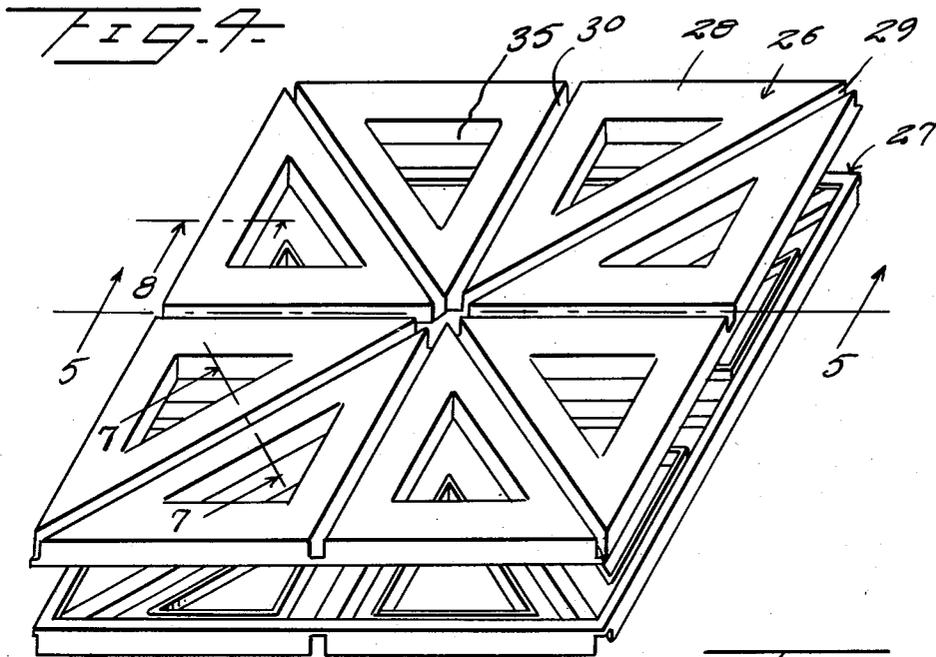
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UNITED STATES PATENT OFFICE

2,486,284

PALLET

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8 Claims. (Cl. 248—120)

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This invention relates to pallets.

An object of this invention is to provide a pallet which is so constructed as to provide for the entrance of the lifting forks in any side or edge of the pallet.

Another object of this invention is to provide a pallet which may be made of relatively light-weight sheet metal which is firmly braced and which will withstand the strains to which a device of this kind is subjected.

In one form of this device, the upper and lower plates are connected together by a pair of diagonal bracing members which are formed with long openings through the webs thereof so that the lifting forks may be inserted from four sides of the device.

In another form of this invention the upper and lower plates are connected together by a central connecting member so that there will not be any obstructing braces or connecting members between the two plates in order that the lifting forks may be freely inserted from any side or edge of the pallet.

With the foregoing objects and others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and illustrated in the accompanying drawings, wherein are shown embodiments of the invention, but it is to be understood that changes, variations, and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawings,

Wherein similar reference characters designate similar parts throughout the respective views,

Figure 1 is a perspective view, partly broken away and in section, of a pallet constructed according to an embodiment of this invention,

Figure 2 is a sectional view, taken on line 2—2 of Figure 1,

Figure 3 is a fragmentary sectional view taken on line 3—3 of Figure 2,

Figure 4 is a perspective view of a modified form of this invention,

Figure 5 is a sectional view taken on line 5—5 of Figure 4,

Figure 6 is a fragmentary sectional view, taken on line 6—6 of Figure 5,

Figure 7 is a sectional view taken on line 7—7 of Figure 4, and

Figure 8 is a sectional view taken on line 8—8 of Figure 4.

Referring to the drawings, and first to Figures 1, 2 and 3, the numerals 10 and 11 designate simi-

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lar upper and lower plate members which are disposed in spaced apart parallel relation and form a deck member. The details of construction of one of these members will apply equally as well to the other member. The plate member 10 comprises a flat plate 12 which is formed with a plurality of parallel grooves 13 which are formed by pressing the plate 12 downwardly forming channeled stiffening members also located at opposed sides or edges, having inturned flanges at the inside. The plate 12 between pairs of the grooves 13 is formed with a plurality of circular holes 14. The flanges 15 of the holes 14 are spaced upwardly from the bottom walls 16 of the grooves 13. The upper member 10, at the ends of the grooves 13, has secured thereto angle members 17 at the edges which close the ends of the grooves 13 and provide additional bracing means to hold the upper member 10 against bending.

The two members 10 and 11 are held in spaced apart relation and braced against bending by means of a pair of crossed channeled stiffening members or I-beams 18 and 19 which extend diagonally with respect to the plates 10 and 11 and intersect the stiffening members or channels 13 at the center. The plates 10 and 11 are substantially square in plan. The plates 10 and 11 have the bottom walls 16 of the grooves 13 welded to the upper and lower flanges of the beams 18 and 19 at the points where the bottom walls 16 contact with the flanges. The beam member 18 is formed with a pair of elongated openings 20 in the web 21 thereof, leaving a centrally disposed bracing web 22. The beam 19 is also formed with a pair of elongated openings 23 in the web 24 thereof, thereby leaving a centrally disposed bracing web 25.

The provision of the long openings 20 and 23 on the opposite sides of the center of the pallet will permit the insertion of the lifting forks from any side of the pallet. The provision of the detents formed by holes 14 with oppositely inwardly extending flanges 15 provides a means whereby plugs may be inserted in the detents if desired so as to hold the boxes or other material on the top of the pallet against shifting.

Referring now to Figures 4 to 8 inclusive, there is disclosed a pallet formed of parallel upper and lower plate members generally designated as 26 and 27. The two plate members 26 and 27 are of like construction and the detailed description of one of these plate members will apply equally as well to the other.

The plate member 26 comprises a flat body 28 which is formed with a pair of diagonally dis-

posed grooves or detents 29 forming stiffening members or channels. The body 28 is also formed with right angularly disposed grooves or detents 30 and 31 forming stiffening members or channels extending from the opposite edges of the body to intersect the channels formed by grooves 29 centrally and communicating with the diagonal grooves or detents in the center of the body.

The body 28 is formed with side or edge channels having intumed flanges at the inside with an outer downwardly extending flange 32 which has extending inwardly from the lower edge thereof an inwardly extending flange 33. The flange 33, as shown in Figures 5 and 8, underlies the bottom wall 34 of the groove 31 and the same is true of the flange at the adjacent edge of the body 28 which underlies the bottom wall of the groove or detent 30.

The body 28 is also formed with triangular cut-outs 35 and, as shown in Figures 4 and 8, each triangular cut-out 35 is defined by a downwardly extending flange 36 which has extending from the lower edge thereof a right angular horizontal flange 37. There is a cut-out 35 between a diagonal detent 29 and an adjacent right angular detent or groove 30 or 31. The two plate members 26 and 27 are held in spaced apart relation by a cylindrical spacer 38 which is formed at the opposite ends thereof with annular flanges 39 and 40. The flanges 39 and 40 are welded or otherwise firmly secured to the bottom walls 41 of the diagonal detents 29 and the bottom walls 34 of the right angular detents 30 and 31.

By providing a pallet as shown in Figures 4 to 8 inclusive, there are no obstructions between the two plate members with the exception of the central connecting member 28, so that the lifting forks may be freely inserted from any side or edge of the pallet. The pallet shown in Figures 4 to 8 inclusive, is designed for holding of fairly lightweight material.

What I claim is:

1. A pallet construction comprising a pair of vertically spaced apart parallel deck members and formed with integral intumed edge flanges disposed in inwardly facing relation to the opposite member, U-shaped upwardly opening in-struct transverse channels on each of said members, and supporting means fixed between each of said deck members fixed to the bight portions of said transverse channels and having such construction that all four sides of the pallet will be open.

2. A pallet construction comprising a pair of vertically spaced apart parallel deck members and formed with integral intumed edge flanges disposed in inwardly facing relation to the opposite member, U-shaped upwardly opening in-struct transverse channels on each of said members, and supporting means fixed between each of said deck members fixed to the bight portions of said transverse channels, said supporting means including diagonally disposed beams formed with elongated openings in the web thereof and providing openings on all four sides of the device for entrance of lifting forks from any side.

3. A pallet construction comprising a pair of vertically spaced apart parallel deck members and formed with integral intumed edge flanges on each of said members disposed in inwardly facing relation to the opposite member, U-shaped in-struct transverse channels on each of said members, and supporting means fixed between each of said deck members fixed to the bight portions of said transverse channels, said supporting means including a centrally disposed cylindrical member and outwardly extending peripheral flanges on said cylindrical member.

4. A pallet comprising a pair of spaced parallel plates having depressed inwardly extending grooves across the same forming stiffening channels and flanged openings extending inwardly between said channels, and flanged members connecting the plates and leaving all four sides open.

5. A pallet comprising a pair of spaced parallel plates having depressed inwardly extending grooves across the same forming stiffening channels and flanged openings extending inwardly between said channels, and a pair of crossed I-beams disposed diagonally between and secured to said plates, said beams having elongated openings longitudinally spaced in the webs thereof on either side of the points of crossing thereof.

6. In a pallet, a pair of spaced parallel plates and a pair of crossed diagonally disposed grooves forming channeled stiffening members and intersecting supports between and secured to said plates, said supports having elongated openings therein.

7. In a pallet a pair of spaced parallel plates having central intersecting transverse and diagonal flanged channels forming reinforcing and stiffening members across the plates, and a flanged member having the flanges thereof secured to the inner faces of opposed plates leaving all four sides of the plates open therebetween.

8. In a pallet a deck member comprising upper and lower spaced parallel plates, a plurality of intersecting transverse and diagonal flanged channels reinforcing and stiffening said plates, certain of said transverse and diagonal channels intersecting at the center, and flanged members between said plates and having the flanges thereof secured to said plate members to hold them in opposed parallel relation.

SOLOMON HORWITZ.

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