

Dec. 8, 1959

A. L. STOPPS
NESTING PALLETS

2,916,239

Filed Feb. 2, 1955

2 Sheets-Sheet 1

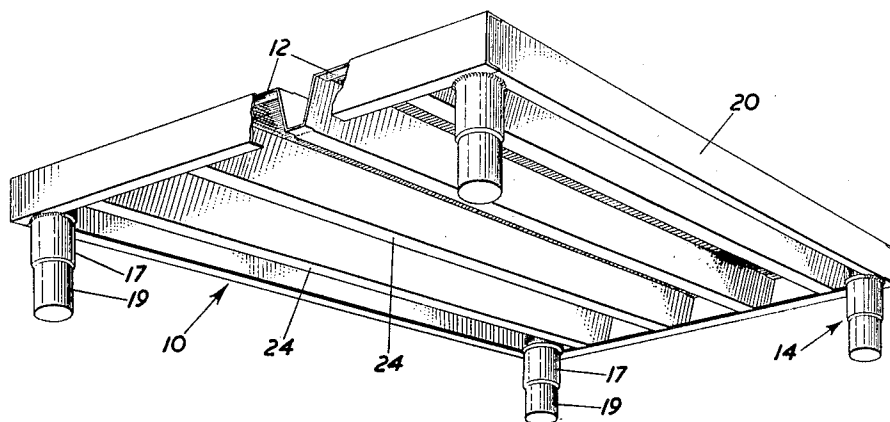


FIG. 1

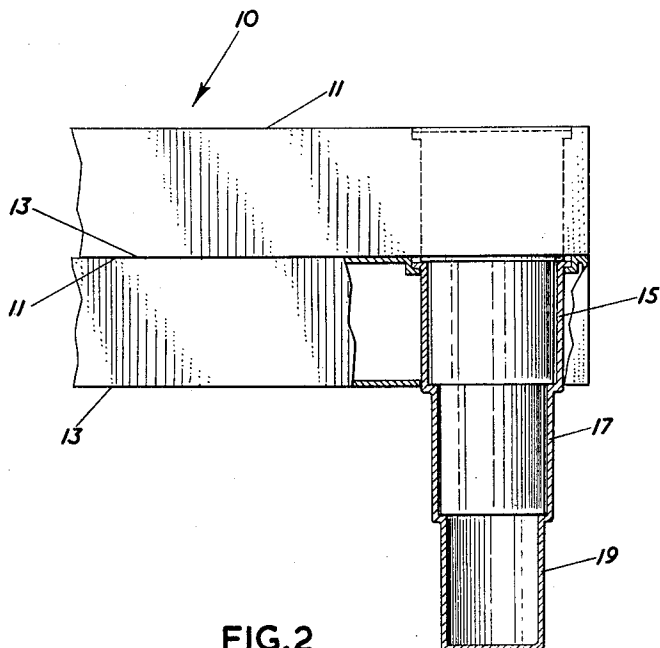


FIG. 2

Inventor
ALFRED LESLIE STOPPS
By *Fetherstonhaugh & Co.*
Attys

1

2,916,239

NESTING PALLETS

Alfred Leslie Stopps, West Flamboro, Ontario, Canada

Application February 2, 1955, Serial No. 485,771

4 Claims. (Cl. 248—120)

This invention relates to a pallet.

It is an object of this invention to provide a pallet which may be stacked when not in use to utilize the minimum possible space.

It is an object of this invention to provide a pallet of exceptionally strong construction.

It is an object of this invention to provide a pallet with supporting legs which locate the material handling platform sufficiently high above the supporting surface to allow the insertion of the forks of a lift truck.

It is an object of this invention to provide a pallet construction conducive to stable stacking of said pallets when spaced apart from each other to provide a shelving construction.

In drawings which illustrate embodiments of the invention:

Figure 1 is a perspective view of the pallet.

Figure 2 is a cut-away view of two pallets stacked with their legs in nesting position, and

Figure 3 is a perspective view illustrating the shelving constructed from the said pallets.

In Figure 1 is shown a pallet having a material handling platform 10 of corrugated construction, the corrugations defining rectilinearly defined peaks 12 and troughs 24 so that the plane 11 of the peaks 12 and the plane 13 of the troughs 24 define a thickness for the material handling platform. Supporting the material handling platform on ends which run perpendicular to the lines of corrugation are channels 18 having their upper and lower extremities corresponding to the planes of the peaks and the troughs of the corrugations respectively. Preferably the corrugated platform 10 is on the sides parallel to the corrugation direction bent vertically then back upon itself to form a channel 20 for rigid connection to the channels 18 at the ends thereof, both channels preferably having the thickness of the material handling platform, so that in the preferred construction, reinforced channeling surrounds the material handling platform.

Downwardly extending tubular legs 14 are provided to support the pallet, such tubular leg being divided over its vertical extent into three lengths 15, 17, 19 having diameters decreasing on lengths 17, 19 farther and farthest from the pallet. Each upper leg length 15 is inset into the platform and channel construction adjacent, the corner of the platform and such wider length 15 of the leg extends from the upper plane 11 of the platform to the lower plane 13 thereof being attached at the upper and lower surfaces. It will be noted that for the nesting advantages desired in the invention, it is necessary that the lengths 15, 19 of the largest and smallest diameter tubing be of equal extent and preferable that all three lengths 15, 17, 19 be of equal extent.

The outer diameter of each length of each diameter is of such a size as to make a sliding fit with the inner surface of the extent with the next larger diameter length and the corresponding lengths of legs in each pallet have the same inside and outside diameters.

In operation, if pallets are not in use, it may be de-

2

sired to stack them and with a platform in position as shown in Figure 2, the next platform is correspondingly located thereabove. Each leg 14 is threaded into the leg 14 of the pallet next below and because of the correspondence between the leg 14 diameters the smallest and medium diameter lengths 19, 17 of the legs 14 of the upper pallet nest in the medium and larger diameter lengths 17, 15 of the lower pallet. Since the extent of tubing length 19 is equal to the thickness of the platform, the legs nest to the extent necessary to allow each platform 10 to be rested on the platform 10 next below. Thus the space taken up by a stack of pallets so nesting, is merely the height of the extending portion of legs 14 of the lowermost pallet, plus the thicknesses of the platform 10 of the higher pallets.

It should also be noted that the pallet legs are preferably six inches long whereby the downwardly extending portion of the legs (i.e. the sum of the lower two lengths 15, 17) is four inches, and a pallet is supported four inches above the floor. Such spacing above the floor allows the insertion of conventional lift truck forks for convenient lifting of a loaded pallet.

Moreover great structural strength is achieved in the leg attachments for the pallets built in accord with this invention by having the upper tubular extent of the leg, extend through the thickness of the material handling body, to allow rigid attachment such as by welding 21 and 23 to the channel and to the body at both the top and bottom planes 11 and 13. Such construction is considerably stronger than the butt-joint attachment of legs to the bottom surface of a material handling platform, which is the mode of attachment in conventional pallets.

For the convenient construction of shelves from the pallets of this invention, tubular spacing supports 25 are provided to space the pallet platforms 10 a convenient distance apart. The tubular spacers 25 have an outside and inside diameter corresponding to that of the middle tubular length 17 of the pallet legs 14. Thus, as shown in Figure 3, the spacer 25 is inserted in the larger diameter length 15 of the lower pallet and extends upwardly to receive the smaller diameter extent of the pallet next above. In this way a convenient pallet construction is produced having sufficient stability which allows the shelving so constructed to be moved by a fork truck supporting the lowermost pallet. By reference again to Figure 1, it will be seen that below the peaks 12 of the corrugated construction, large spaces occur. In these spaces may be inserted the tubular spacers 25 when not in use so that the whole assembly when not in use may be stacked, taking up only the height of the legs of the lowermost pallet and the thickness of the body of the remaining pallets as heretofore described.

I claim:

1. A pallet comprising a material support platform of corrugated construction having peaks and troughs, said peaks and said troughs defining the thickness of said platform, said platform having opposed edges which extend parallel to said corrugations and opposed edges which extend transversely of said corrugations, said platform having a U-shaped reinforcing channel having a bottom and spaced apart sides on each of said transversely extending edges, the sides of said channels embracing the marginal portions of the peaks and troughs of said platform adjacent its respective transversely extending edge, one side of each of said channels embracing peaks and the other side embracing troughs as aforesaid whereby to form a rigidifying support for said platform, legs permanently attached to said platform and extending from one side thereof, socket means overlying each of said legs and on the opposite side of said platform, said socket means being adapted to receive and to

3

seat therein the free end of a leg similar to said legs of said platform.

2. A pallet as claimed in claim 1 having tubular members rigidly secured to said support platform, each of said tubular members comprising one of said legs and the said respective socket means overlying it.

3. A pallet as claimed in claim 1 in which the marginal portion of said edges of said platform that extend parallel to said corrugations are U-shaped in cross section whereby to rigidify said platform.

4. A pallet as claimed in claim 1 in which the marginal portion of said edges of said platform that extend parallel to said corrugations are U-shaped in cross section, and which has tubular members rigidly secured to said support platform, each of said tubular members comprising

4

one of said legs and the said respective socket means overlying it.

References Cited in the file of this patent

UNITED STATES PATENTS

1,336,973	Levene	Apr. 13, 1920
1,934,389	Ulsh	Nov. 7, 1933
2,232,991	Zeindler	Feb. 25, 1941
2,486,284	Horwitz	Oct. 25, 1949
2,497,453	Hazen	Feb. 15, 1950
2,544,657	Cushman	Mar. 13, 1951
2,602,568	Kinney	July 8, 1952
2,668,681	Kappen	Feb. 9, 1954
2,678,143	Dillingham	May 11, 1954
2,706,099	Whalley	Apr. 12, 1955