Nov. 21, 1950 O. F. ARTHUR 2,530,752

PALLET

Filed May 3, 1946 3 Sheets-Sheet 1

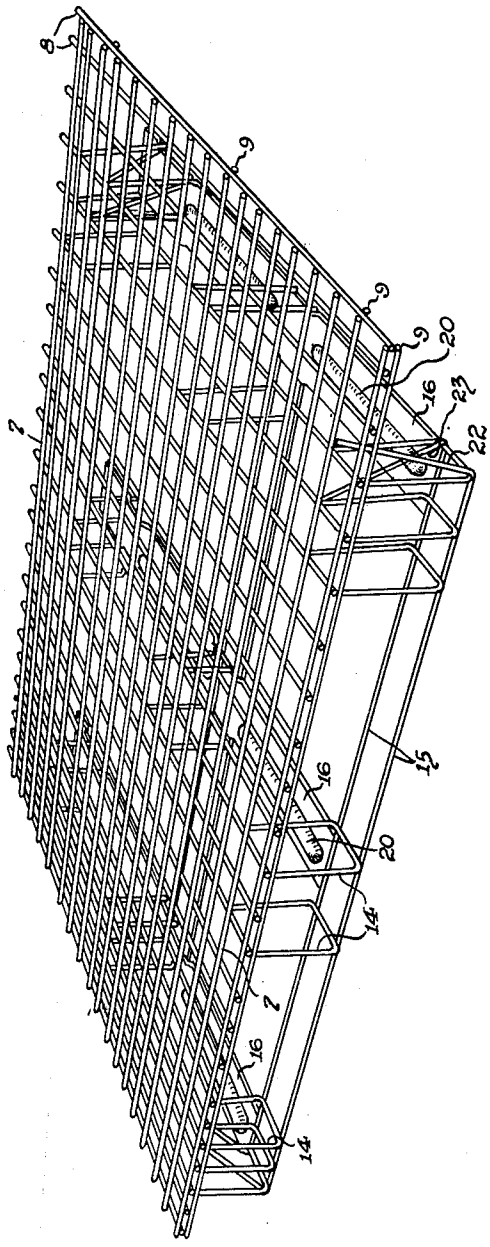


Fig. 1.

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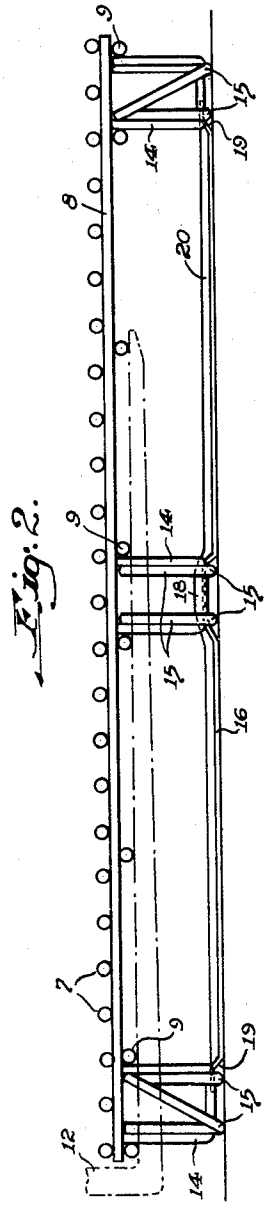


Fig. 2.

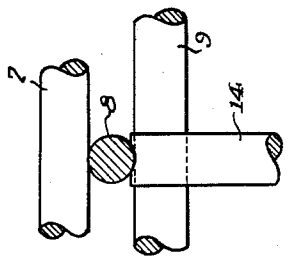


Fig. 4.

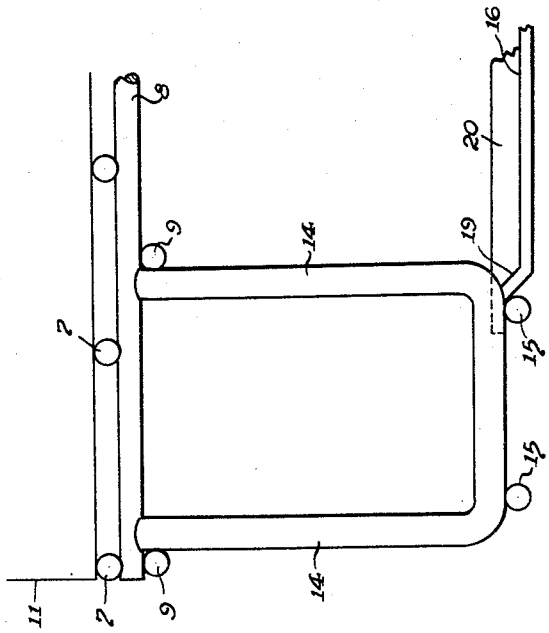


Fig. 3.

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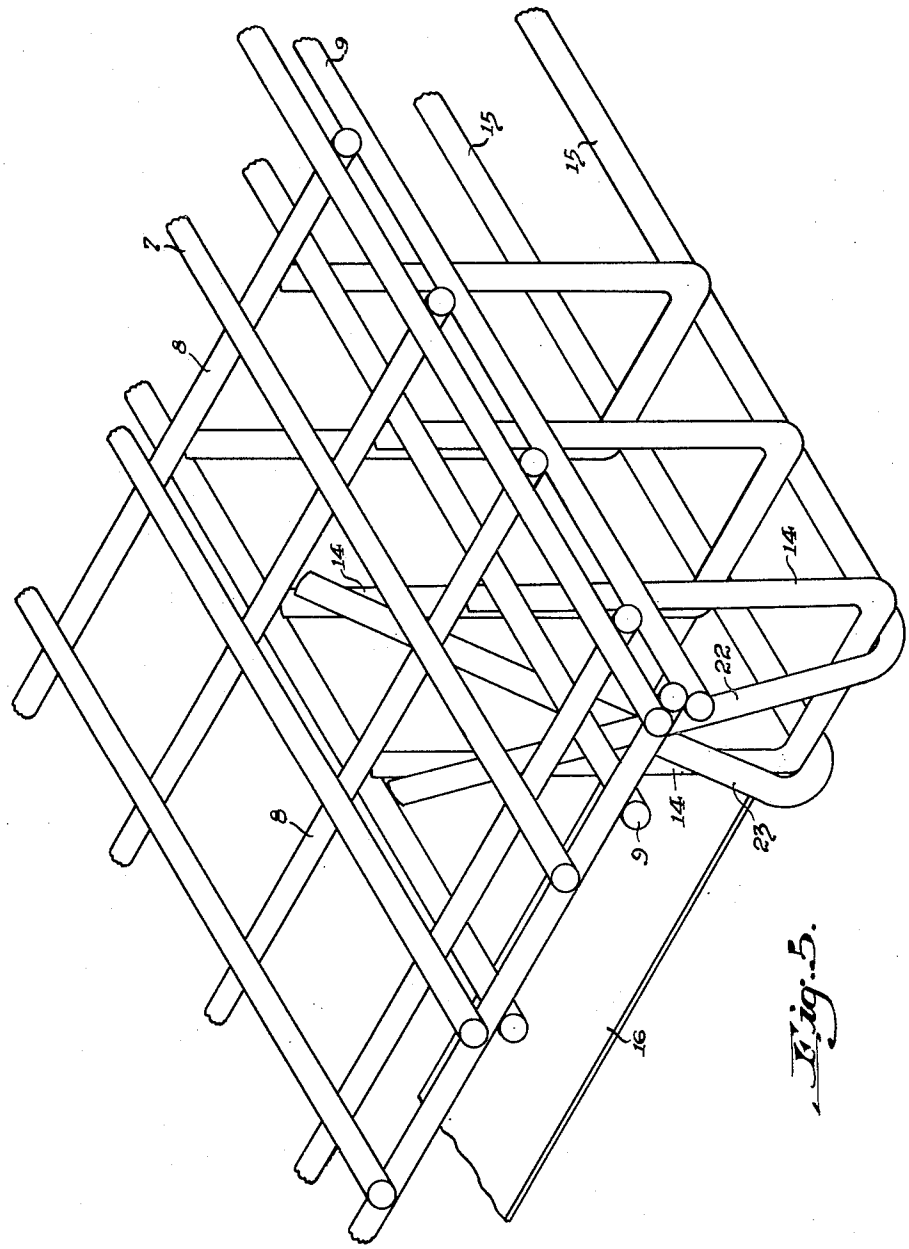


Fig. 5.

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Patented Nov. 21, 1950 2,530,752

UNITED STATES PATENT OFFICE

2,530,752

PALLET

Oscar F. Arthur, Connellsville, Pa.

Application May 3, 1946, Serial No. 667,215

3 Claims. (Cl. 248—120)

1

My invention relates to pallets or portable platforms, such as those utilized in stacking and handling shipping cases and other articles. Such structures are designed for use with trucks having lifting forks or tongues projecting forwardly thereof into position beneath the pallets to lift them and to transport them from place to place, as well as to stack them on one another.

This application comprises various improvements upon or additions to the pallet structure of my application Serial No. 611,332, filed August 18, 1945, now Patent No. 2,463,587, issued March 8, 1949, and in addition to possessing the advantages of the various objects recited in the said application has for its object the provision of a pallet having certain strengthening and stiffening features not found in the previous application, such as the use of diagonally-extending bracing elements at the corners of the pallet; stiffening bars welded to the underside of the pallet deck, and the welding of the upper ends of the leg members to the deck structure and the stiffening bars.

In the accompanying drawings, Figure 1 is a perspective view of a pallet embodying my improvements; Fig. 2 is an end elevational view thereof, on a larger scale; Fig. 3 is an elevational view on a still larger scale of a portion of the structure of Fig. 2; Fig. 4 is a fragmentary view taken at right angles to the structure of Fig. 3, and Fig. 5 is an enlarged perspective view of one corner of the structure of Fig. 1.

The deck portion of the pallet comprises wires or rods 7 that extend longitudinally of the pallet and transversely-extending wires or rods 8 that are welded to the undersides of the rods 7. These rods 7 and 8 may suitably be of No. 2 wire. Rods 9 or somewhat heavier guage than the members 7 and 8 are welded to the underside of the wires 8. Packages or other lading are supported directly by the deck rods 7 as indicated at 11, while the rods 9 are directly engaged by lifting forks indicated at 12. These rods not only provide bearing engagement between the deck and the lifting forks, but give greater stiffness and stability for steadying a teetering load when it is being transported, and eliminate excess cantilever action.

The addition of the rods 9 to the underside of the deck mesh also gives a wider vertical dimension to the pallet deck at the edges thereof, thus reducing danger of the deck of one pallet overriding the deck of another pallet when their edges are moved into abutting engagement at approximately a common plane.

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Legs 14 are of U-shape and have their upper ends welded to the undersides of certain of the rods 8 and to the adjacent sides of the rods 9, as shown more clearly in Figs. 3 and 4. The positioning of the legs directly beneath the rods 8 gives greater strength than if they were welded to the sides of said rods, with consequent avoidance of shearing stresses that otherwise would occur at the welded joints.

Tie rods or base bars 15 are welded to the under surfaces of the leg members 14 and serve, in effect, also as skid elements or runners. Sheet metal plates 16 are welded to the upper horizontal surfaces of the rods 15, these plates being bent upwardly, as shown at 18 and 19, to overlie the members 15 and so that the lowermost plane of the plates is common to the lowermost plane of the members 15, to thereby form a base having a surface of sufficiently extended or continuous area as to facilitate the stacking of loaded pallets upon one another, with the base of each pallet adequately engaging sufficiently extended upper face areas of the load that is contained on the next lower pallet of a stack. The plates 16 are corrugated as indicated at 20 to give them greater stiffness.

At each corner of the pallet, one of the base bars 15 is bent up as shown at 22 and welded at its upper end to the adjacent leg element 14 and the deck, while the other base bar is bent upwardly and backwardly as shown at 23 and welded at its upper end to a leg member 14 that is set farther backward than is the leg to which the bent portion 22 is welded. The bent portions 22—23 serve to brace the pallet structure and support the legs against horizontal thrusts in both longitudinal and transverse directions.

It will be seen that the legs 14 are so arranged and placed relative to one another that the forks of a lifting truck can be moved into position beneath the deck from either the ends or the sides of the pallet as well as at various other angles, even at the corners of the pallet.

I claim as my invention:

1. A pallet comprising a deck portion, leg members of U-form secured at their upper ends to the deck, adjacent to each corner of the pallet, and tie rods arranged in pairs at each side of the pallet and rigidly secured to the lower portions of the adjacent leg members, the ends of the adjacent rods being bent in upwardly-inclined directions and crosswise of each other and having their extremities rigidly secured to the deck.

2. A pallet comprising a deck portion, leg members secured at their upper ends to the deck,

and tie rods secured in laterally-spaced relation to the lower ends of the leg members, some of the tie rods having extended end portions that are bent upwardly and laterally to form diagonal struts whose extremities are secured to the deck, and others of the tie rods having their end portions bent upwardly in generally crossed relation to the first-named bent portions and having their extremities secured to the deck.

3. A pallet comprising a deck portion, leg members secured at their upper ends to the deck, and tie rods secured in laterally-spaced relation to the lower ends of the leg members, some of the tie rods having extended end portions that are bent upwardly and laterally to form diagonal struts whose extremities are secured to the deck, and others of the tie rods having their end portions bent upwardly in a plane that crosses the

planes in which the first-named end portions are bent, to thereby brace the pallet against distortional stresses in both longitudinal and transverse directions.

OSCAR F. ARTHUR.

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