

Jan. 26, 1954

B. C. COIT, JR

2,667,319

COMBINED CRATE AND PALLET STRUCTURE

Filed July 29, 1952

3 Sheets-Sheet 1

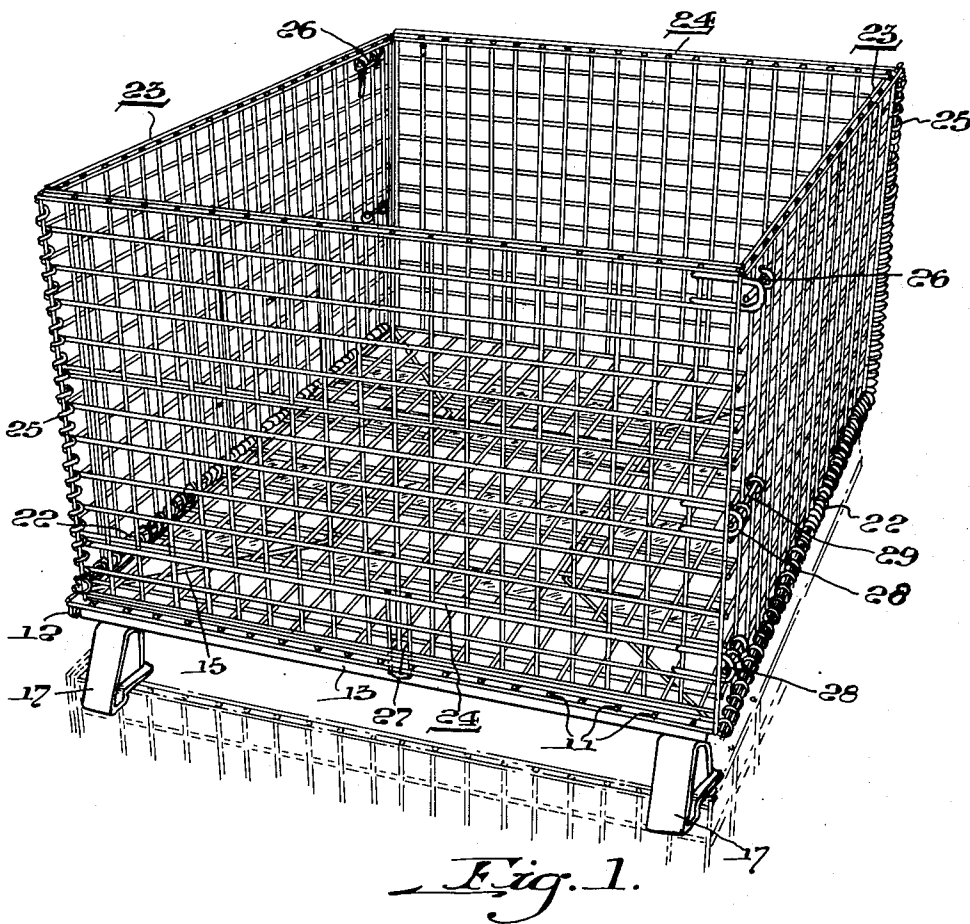


Fig. 1.

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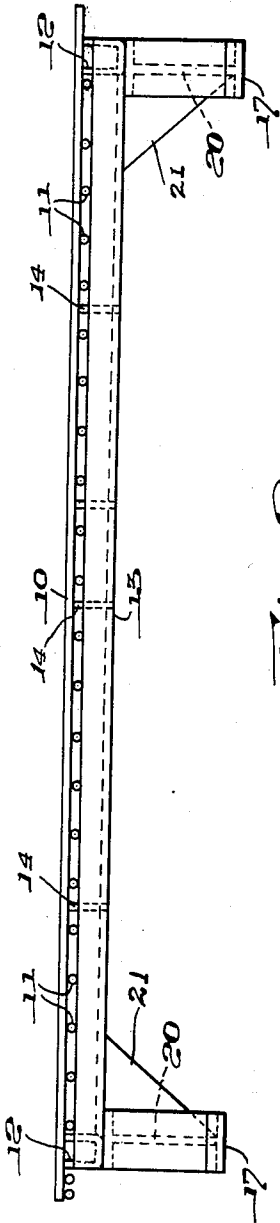


*Fig. 2.*

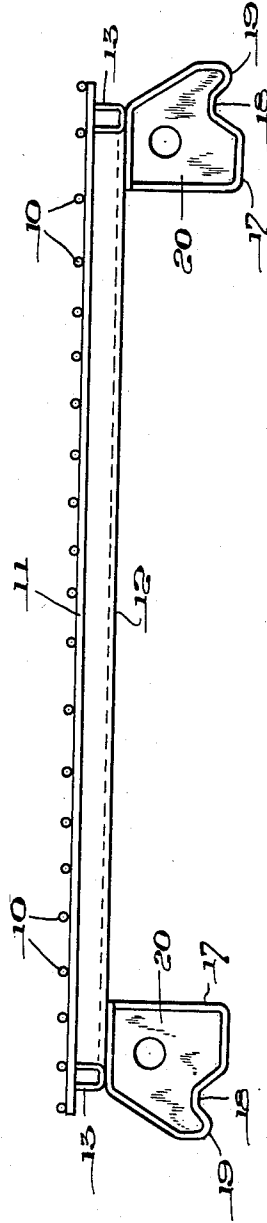


*Fig. 3.*

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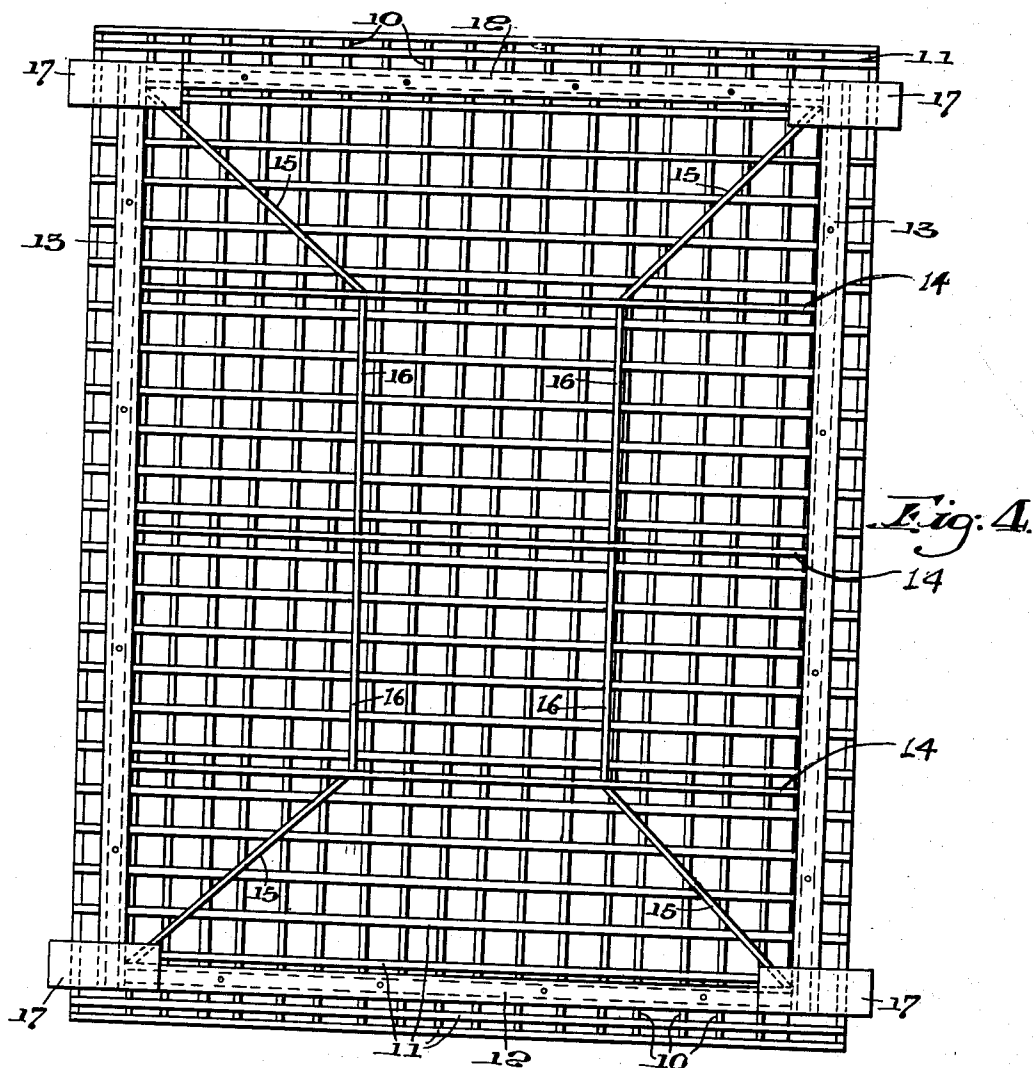
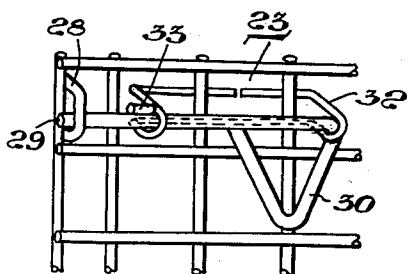
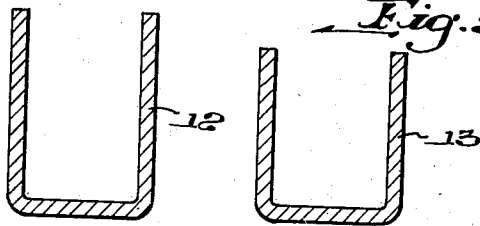


Fig. 6

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## UNITED STATES PATENT OFFICE

2,667,319

## COMBINED CRATE AND PALLET STRUCTURE

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2 Claims. (Cl. 248-120)

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This invention relates to a container of the crate type and includes a base therefor of pallet-like form whereby the crate can be transported and stacked by lift trucks such as those of the lift fork type. The base is of pallet-like form and may be used either with or without crate side walls, in which latter case the deck of the base will serve as the bottom wall of the crate.

One object of my invention is to provide a container of the character referred to wherein the base is of such structure that it is highly resistant to bending or distorting under superimposed loads, even though it is supported by feet or legs only at its four corners.

Another object of my invention is to provide a crate base or pallet of such form that is highly resistant to shocks that may be imposed against it in generally horizontal directions.

Still another object of my invention is to provide a container having a base of such form that each container and base can accurately and conveniently be positioned upon other crates, into partially interlocking relation therewith, whereby the upper crates will be held against sliding on the lower crates and wherein vertical walls of the crates will be more adequately supported by the base frames against superimposed loads than in the case of various other forms of bases.

As shown in the accompanying drawings, Figure 1 is a perspective view of a crate embodying my invention showing its base stacked upon another crate, at one corner;

Fig. 2 is an end view of the base of Fig. 1, on an enlarged scale;

Fig. 3 is a side view thereof;

Fig. 4 is an inverted plan view of the base of Figs. 1 to 3;

Figs. 5 and 6 are cross sectional views of the channel frame members of the base, and

Fig. 7 is an enlarged detailed view of one of the latches for the container sides.

The base shown more clearly in Figs. 2, 3 and 4 serves as a bottom for the crate, and is in the nature of a pallet which may be lifted and transported by fork-lift trucks and the like.

The base comprises wires or rods 10 welded in crossed relation to rods 11, to form a lattice-like bottom for the crate. Frame members 12 of channel form are welded to the rods 10, along lines between adjacent rods 11, while channel members 13 are welded to the undersides of the wires 11 and at their ends are welded to the channels 12. The channels 13 are of somewhat lesser depth than the channels 12, so that the lower surfaces of these various channels will lie in a common plane.

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The members 12-13 form a rectangular framework disposed adjacent to the marginal edges of the mesh 10-11. That area of the deck within this rectangular frame is stiffened and reinforced by brace bars 14, 15 and 16 shown more clearly in Fig. 4, the bars 14 extending crosswise of the deck and being welded at their ends to the channels 13. The bars 16 bridge the spaces between the bars 14 and are welded at their ends thereto, while the bars 15 extend diagonally from the bars 14 to the channels 12 and 13 at the corners of the deck and are welded thereto. All of the bars 14, 15 and 16 are welded to the underface of the mesh 11-12.

Feet 17 are welded to the channels 12-13 at the corners of the deck and each leg has a depression or upwardly-disposed offset recess 18 therein and a toe portion 19 to facilitate stacking of the base on another crate as shown in Fig. 1. A web-like stiffener 20 is disposed within each foot and is welded thereto, and gusset plates 21 are provided at the legs, for greater strength.

The vertical walls of the crate are of lattice or mesh-like form, the side walls being hinged to the deck by helical wires 22 that connect the walls to the adjacent marginal wires of the deck. The oppositely-disposed side walls 23 are hingedly connected to the end walls 24 at diagonally-opposite corners of the deck by helical wires 25. At the other diagonally-opposite corners of the crate, the vertical walls are detachably connected by latches 26 shown more clearly in Fig. 7. The end walls 24 have the loop-like extensions 27 welded thereto near their mid portions that extend through the deck mesh so as to hold the mid portions of these walls from bulging under contained loads. At their vertical free edges, the walls 24 have loop-like members 28 welded thereto in position to extend through the mesh openings in the walls 23, for engagement by slide bolts 29.

Each of the bolts 29 has a handle portion 30 formed thereon for convenient manipulation thereof and also serving as a weighted element to hold the bolt against accidental disengagement from the loop 28. A guide 32 of bent-loop form is welded to the inner face of the side walls 22 and its looped ends are bent outwardly to receive the bolt 29 which is slidable therein. When the bolt is latched with the keeper 28 as shown in Fig. 7, the weighty handle portion 30 of the bolt will hang downwardly so as to bring a stud 33 that is welded to the bolt into abutting engagement with the adjacent leg of the guide 32. The bolt therefore is not in serious danger of becoming accidentally disengaged from the

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keeper. When the member 30 is lifted, the retaining stud 33 will, of course, be rocked to a point at which it can be slid rearwardly in the guide 32.

I claim as my invention:

1. A container base comprising a lattice-like deck sheet of an upper series of laterally-spaced rods welded crosswise of a lower series of laterally-spaced rods, a supporting frame for the deck, that comprises channel bars welded in crosswise position to the undersides of the second-named series of rods, adjacent to the longitudinal edges of the deck sheet, channel bars disposed between rods of said second series, adjacent to the ends of the deck sheet and welded to the undersides of the first-named series of rods, and also welded to the other bars at points adjacent to the corners of the deck, and legs welded to the channel bars adjacent to the corners of the deck, the first-named channels being of greater depth than the first-named channels, with their lower faces in a common plane, and the legs having flat top areas in flatwise engagement with the undersurfaces of both channels at each corner of the deck.

2. A container base comprising a lattice-like deck sheet of an upper series of laterally-spaced rods welded crosswise of a lower series of laterally-spaced rods, a supporting frame for the

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deck, that comprises channel bars welded in crosswise position to the undersides of the second-named series of rods, adjacent to the longitudinal edges of the deck sheet, channel bars disposed between rods of said second series, adjacent to the ends of the deck sheet and welded to the undersides of the first-named series of rods, and also welded to the other bars at points adjacent to the corners of the deck, and legs welded to the channel bars adjacent to the corners of the deck, the first-named channels being of greater depth than the first-named channels, with their lower faces in a common plane.

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