March 22, 1949. R. L. TOFFOLON 2,465,133

PALLET AND LIFT FORK THEREFOR

Filed Jan. 8, 1946

FIG. 1.

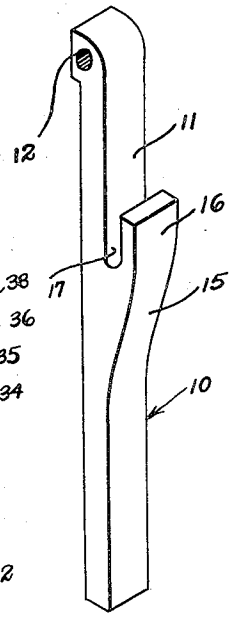


FIG. 5

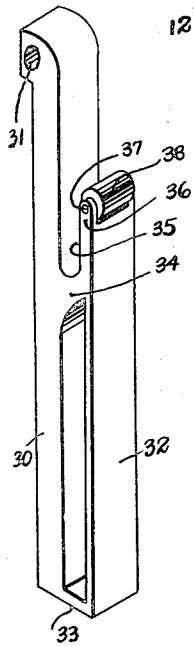
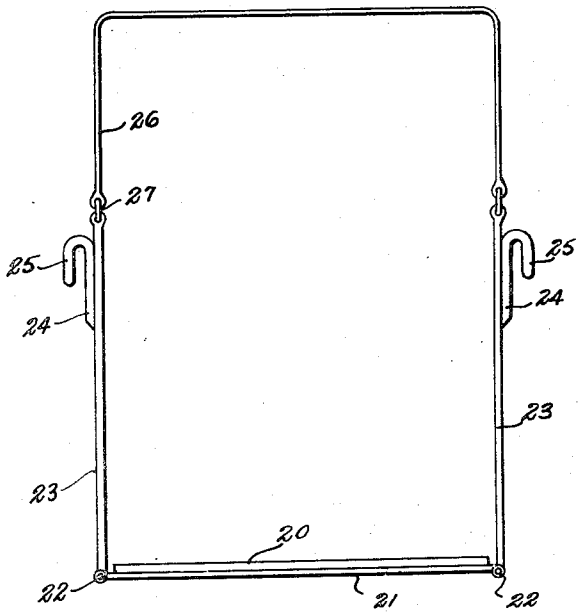


FIG. 2.



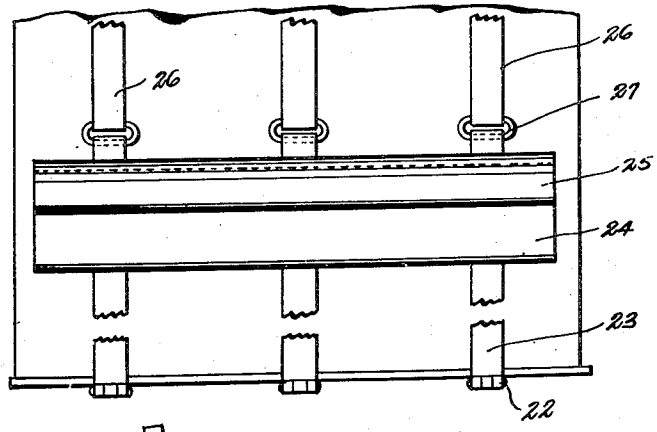
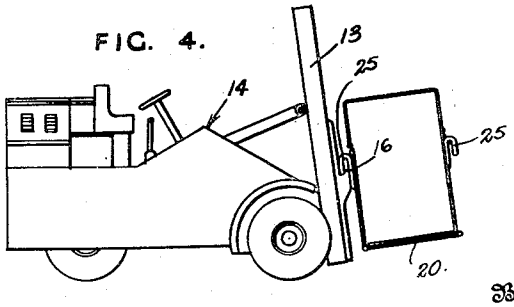


FIG. 3.

FIG. 4.



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PALLET AND LIFT FORK THEREFOR

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5 Claims. (Cl. 214—65)

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This invention relates to a pallet and a lift fork therefor.

A primary object of this invention is the provision of an improved pallet for the transportation and storage of bagged or other commodities.

An additional object of the invention is the provision of an improved lift fork for such a pallet characterized by means whereby the pallet may be stored directly on the floor, and the necessity of raising the same from the floor in order to insert the fork of a lift truck thereunder may be obviated.

Still another object of the invention is the provision of such a pallet characterized by means whereby the commodities carried thereby may be substantially self-contained and secured in related assembly with the pallet with a minimum of difficulty and effort.

A still further object of the invention is the provision of such a pallet which may be lifted and transported by a conventional lift truck provided with a fork adapted to be utilized therewith, with a minimum of effort and difficulty.

Still other objects reside in the combination of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and shown in the accompanying drawings, wherein there is disclosed a preferred embodiment of this inventive concept.

In the drawings:

Figure 1 is a perspective view of one type of fork embodying the instant inventive concept adapted to be utilized with a pallet comprising a feature of the present invention.

Figure 2 is an end elevational view of a pallet adapted to be utilized in conjunction with the lift fork of Figure 1.

Figure 3 is a side elevational view, partially broken away, disclosing a feature of the pallet of the instant invention.

Figure 4 is a side elevational view, disclosing a conventional lift truck having incorporated therewith the fork and pallet of the instant invention.

Figure 5 is a perspective view of a modified form of fork.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring now to the drawings, and more particularly to Figure 1, there is generally indicated at 10 a lift fork adapted for utilization with the improved pallet of the instant invention, which comprises an elongated portion 11

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provided with an aperture 12, whereby the same may be secured to the hydraulic lift mechanism 13 of a conventional lift truck generally indicated at 14 (see Fig. 4). The elongated member 11 is provided with an offset portion 15 provided with a protruding lug 16 forming a recess or depression 17 adapted to be engaged by the hook of a pallet, to be more fully described hereinafter.

Referring now particularly to Figure 2, the pallet of the instant invention is comprised of a base 20 which may be formed of plywood or the like, beneath which are positioned a plurality of metal strips 21 provided at their extremities with hinge portions 22 to which are secured metallic elongations 23 which extend upwardly about the commodity carried on the plywood base 20. The elongated portions 23 are provided across their upper extremities transversely with a channel strip 24, the upper portion of which is formed into a hook 25, the hook 25 being adapted to engage the lug 16 and seat in the recess 17.

From the foregoing it will now be seen that any suitable commodity, as for example, bags of flour or the like, may be placed on the plywood bottom 20 and the portions 23 bent upwardly therearound. A suitable sling 26 is provided which may be secured to the upper extremity of the members 23 in any desired manner, as by clips, clamps or hooks 27, which latter may take, if desired, the form of pelican hooks, whereby the entire assembly may be formulated into a relatively compact package including the pallet, the slings and the commodity contained on the pallet.

It will thus be seen that if the pallet is packaged in the manner previously described, the hooks 25 may be readily engaged by the improved forks 10 in such manner as to readily lift the pallet from the floor for the purpose of transporting the same, or storing the same, or loading the same into a freight car or other vehicle. It will also be seen that by means of the improved lifting fork utilized in conjunction with a conventional truck, the necessity of inserting the forks beneath the pallet while resting on the floor is completely obviated, and that the pallet may be readily lifted to any desired height within the limits of efficiency of the truck, and that one pallet may be readily stored upon the top of the slings of an associated pallet with no loss of space between associated loaded pallets.

In Figure 5 there is disclosed a modified form of fork adapted for use with a lift truck and

with the pallet of the instant invention, which includes an elongated member 30, apertured, as at 31, to permit the same to be secured to a lift truck, and having an upwardly extending portion 32 secured to the base of the member 30, as by an integral web 33. A reinforcing member 34 extends from elongated member 30 to the extending portion 32 to provide additional strength therefor, and the upper portion of the reinforcing member 34 forms a depression 35 adapted to be engaged by the hook-shaped member 25 of the pallet. The uppermost portion of the member 32 is bifurcated, as at 36, and provided with an axle 37 extending between the bifurcations, upon which is mounted a roller 38, the roller 38 serving to facilitate the engagement of the fork with the pallet.

Obviously, the fork disclosed in Figure 5 may be utilized in the same manner as that previously described in connection with the fork in Figure 1.

It will now be seen that there is herein provided an improved pallet for the transportation of commodities and a lifting fork adapted to be utilized in conjunction therewith which accomplishes all the objects of this invention, and others including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made of the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. In a pallet for lift trucks, the combination of a load-supporting base, a plurality of transverse reinforcing members hinged at the sides of said base, hook portions at the extremities of said members, means for securing said reinforcing members about a load, said last-mentioned means including straps securing said reinforcing members about said load, and lift truck-carried means engageable by said hooks, said last-mentioned means comprising elongated members movable by said truck and including hooks engageable by said first-mentioned hooks.

2. In an industrial truck, the combination, which comprises vertically disposed bars with hooks on the outer faces intermediate the ends thereof slidably mounted on the face of an elevating frame of the truck with the hooks projecting outward therefrom, a load carrier having a base with a plurality of spaced inverted U-shaped straps extending upward from opposite sides thereof, and inverted U-shaped clips with one of the legs thereof mounted on the straps and the other projecting outward positioned to receive the hooks of the bars on the elevating frame.

3. In an industrial truck, the combination, which comprises vertically disposed bars with hooks on the outer faces intermediate the ends thereof slidably mounted on the face of an elevating frame of the truck with the hooks projecting outward therefrom, a load carrier having a base with a plurality of spaced inverted U-shaped straps extending upward from opposite sides thereof, inverted U-shaped clips with one of the legs thereof mounted on the straps and the other projecting outward positioned to receive the hooks of the bars on the elevating frame, and means hinging the straps to the base.

4. In an industrial truck comprising an elevating frame with a forwardly-directed working face thereon and a load carrier for the truck having downwardly-directed hook means whereby to suspend the load carrier adjacent to the working face of the elevating frame, the features which include a plurality of upwardly-extended elongated bars slidably mounted and spaced apart on said working face of the elevating frame with upwardly-open hooks fixed on the outer faces of said elongated bars intermediate the upper and lower ends thereof and distinct downwardly-directed hook means including a downwardly-directed flange extending continuously transversely of the rear portion of the load to be carried by said truck and adapted to engage with the open hooks upon said upwardly-extended elongated bars.

5. In a lift truck comprising an elevating frame with a forwardly-directed working face, elevating means thereon having upwardly-open hooks adapted to be raised and lowered with respect to said working face, a load-supporting base, a plurality of supporting members hinged at the opposite sides of the base and extending upwardly therefrom, and means for interconnecting the upper ends of the supporting members upon one side of said base with the upper ends of the supporting members on the other side thereof, the feature which includes a continuous transversely-disposed, downwardly-directed or hooked continuous flange extending transversely of and secured to the supporting members upon at least one side of said base at a predetermined distance above the latter and adapted to engage with the upwardly-open hooks of said elevating means.

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