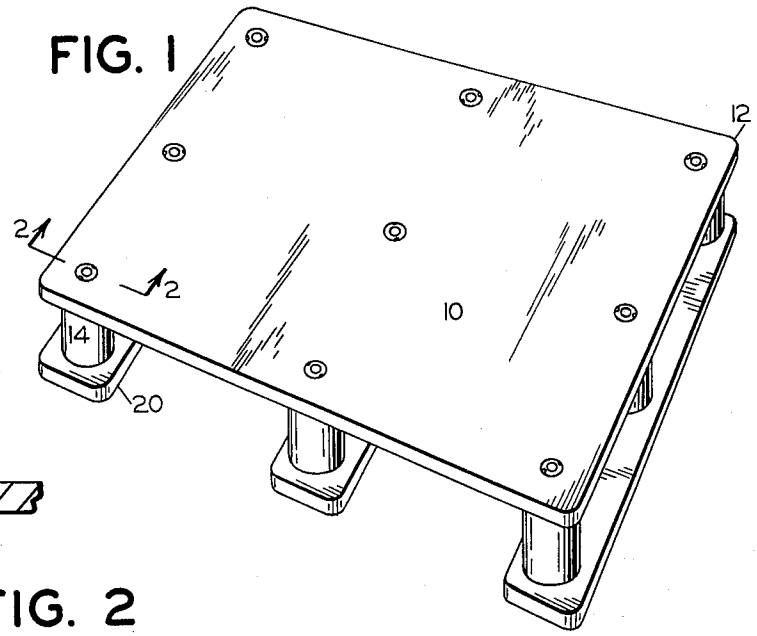
Sept. 15, 1964 E. M. LUND 3,148,637

PALLET

Filed Oct. 9, 1962

FIG. 1



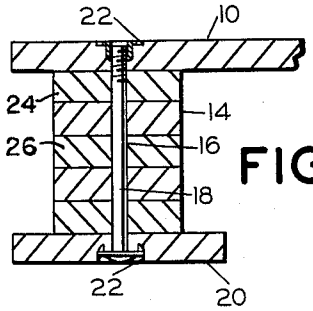


FIG. 2

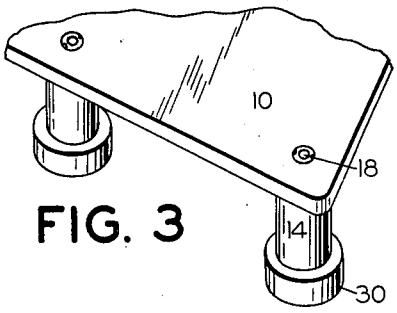


FIG. 3

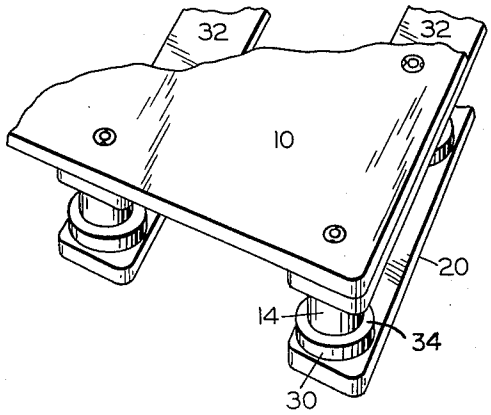


FIG. 4

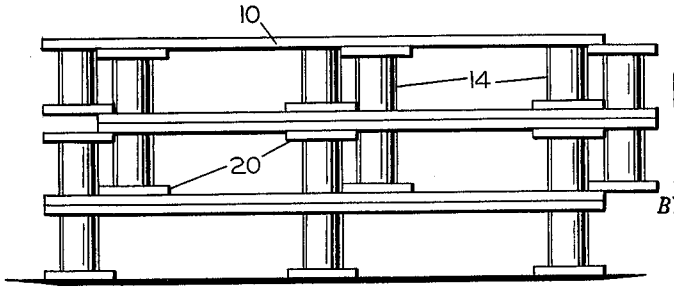


FIG. 5

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PALLET

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3 Claims. (Cl. 108—58)

This invention relates to new and useful improvements in pallets of the type adapted to support a load and adapted for the lifting reception of forks of a power vehicle such as a lift truck.

A primary object of the present invention is to provide a pallet of the type described having improved structure which facilitates its being picked up conveniently from any one of its four sides by a power vehicle and which at the same time is extremely durable and of long life.

A more particular object of the present invention is to provide a pallet which employs depending spacer blocks or foot members which are cylindrical in structure and secured in a fixed, non-rotative position and furthermore are disposed in parallel rows to facilitate compact stacking of the pallets by laterally offsetting the pallets slightly to position the rows of spacer blocks in overlapping relation.

Still another object is to provide a pallet employing a novel arrangement of cylindrical spacer blocks and bottom strip members.

Yet another object is to provide a pallet which is inexpensive to manufacture, since it employs commonly manufactured components.

Briefly stated, the present pallet comprises a top plate on which articles to be carried are supported. This plate carries a plurality of depending spacer blocks or foot members of a length sufficient to permit the fork members of a lift truck or other power machine to move under the plate. These spacer blocks are arranged selectively whereby to provide lift fork passages on all four sides of the pallet. In a preferred arrangement bottom skid strips, disposed in parallel relation, are mounted on the bottoms of the spacer blocks. Other arrangements of spacer blocks may be provided but in all cases it is essential that these blocks have an outer configuration, preferably round, which does not interfere with the entrance of the fork members of a lift truck to a position under the pallet. Also essentially, the round blocks are integrally secured to the top plate in a fixed, non-rotative position.

The invention will be better understood and additional objects will become apparent from the following specification and claims, considered together with the accompanying drawings, wherein the numerals of reference indicate like parts and wherein:

FIGURE 1 is a perspective view of a pallet of the present invention comprising a first modification;

FIGURE 2 is a fragmentary sectional view through one of the spacer blocks, taken on the line 2—2 of FIGURE 1;

FIGURE 3 is a fragmentary perspective view of a second modification;

FIGURE 4 is a fragmentary perspective view of a further modification; and

FIGURE 5 is an end elevational view of a plurality of the pallets of the FIGURE 1 embodiment in stacked relation.

Referring now specifically to the drawings and first to FIGURES 1 and 2 which show a first form of the invention, there is employed a top frame **10** which preferably comprises a plywood plate in order to provide a one piece, rigid and durable article supporting base. Top plate **10** usually will be rectangular in configuration and have its corners **12** rounded. Utilizing plywood as the top plate provides a non-warping but generally light weight structure. This top plate has full length and width dimensions

of the pallet and has flat, uninterrupted upper and lower surfaces.

Depending from the top plate **10** are a plurality of spacer blocks or foot members **10** a detailed view of which is shown in FIGURE 2. These spacer blocks have a central bore **16** for receiving a bolt **18** which secures such blocks to the under surface of the plate **10**. In a preferred arrangement, elongated skid strips **20** span the bottom of the spacer blocks **14** and in general are of the same length, or width, depending upon their direction of mounting, as the plate **10**. Such skid strips provide an even footing for the pallet and furthermore integrate the spacer blocks in a row into a rigid unit.

Plate **10**, spacer blocks **14**, and skid strips **20** are held together by the bolts **18**. The head of the bolts as well as the nut on the opposite end are disposed in suitable recesses **22** in the surfaces of the plate **10** and skid strips **20**. By forcefully tightening the nut on the bolt, the elements of the pallet are drawn together in an arrangement whereby the spacer blocks are fixedly anchored against rotation. Such fixed position of the spacer block facilitates long wear thereof and resists damage to the said blocks which may be caused by repeated engagement by the lifting forks of a lift truck.

In a preferred arrangement, spacer blocks **14** are arranged in a checkerboard pattern, i.e., being disposed in rows in both directions of the top plate. The rows in both directions have a sufficient spacing as to permit insertion of fork members of a lift truck. Thus, a four-way access is provided.

Also, in a preferred arrangement the spacer blocks **14** are cylindrical to prevent the fork members from hanging up on any sharp corners, the fork members usually also being rounded at their front edge and thus easily inserted under the pallet even though they may abut such spacer blocks.

Furthermore, in a preferred arrangement the spacer blocks **14** are formed of integral laminations, with adjacent laminations having their grain extending in opposite directions. The laminated structure is best shown in FIGURE 2 and individual laminations are designated by the numerals **24** and **26**. Such laminated structure or multiple ply arrangement is similar to a plywood construction and similarly is very sturdy and difficult of damage. Accordingly, by utilizing a fixed, non-rotative, cylindrical, and laminated spacer block, a long lasting and dependable pallet is provided.

FIGURES 3 and 4 show slightly modified constructions. The FIGURE 3 construction includes the top plate **10** and the spacer blocks **14** as described in connection with the FIGURE 1 embodiment. Instead of the bottom skid members **20**, however, as in FIGURE 1, each of the spacer blocks **14** has a bottom enlarged skid block **30** integrally secured thereto as by bolts **18**. The enlarged block **30** may be formed of laminated structure similar to the block **14** and serves as protector means for the spacer block.

In the FIGURE 4 embodiment, there is employed the usual top plate **10**, top stringers **32**, spacer blocks **14**, enlarged auxiliary blocks **34** and skid strips **20**, the latter strips being disposed in parallel relation with the stringers **32**. The arrangement of FIGURE 4 provides an extremely rigid and sturdy structure but of course of heavier construction. Similar to the FIGURE 1 embodiment the blocks **14** of this embodiment are arranged in longitudinal and lateral rows to provide four-way insertion of fork members of a lift truck.

The various pallet structures described are conveniently stacked in a compact relation as shown in FIGURE 5 merely by inverting alternate pallets and in adjacent pallets wherein the spacer blocks are directed toward each

other, to offset the pallets slightly, to allow spacer blocks of adjacent pallets to overlap so that the pallets nest together.

In accordance with the present invention, there is thus provided a pallet which, due to its full plate top, the cylindrical spacer blocks, and the integral securement of the spacer blocks to the top plate, is extremely durable and easy to use. The skid strips **20** of the embodiments of FIGURES 1 and 4 contribute to the rigidity of the unit but nevertheless allow for four-way insertion of fork members of a lift truck.

It is to be understood that the form of my invention herein shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A pallet construction for supporting articles to be carried by a power mechanism having lifting forks, comprising a top frame on which articles to be carried are supported, said frame comprising a one-piece, rigid, plate member having full length and width dimensions of the pallet and having flat, uninterrupted upper and lower surfaces, a plurality of generally cylindrical spacer blocks depending from the lower surface of said plate member, said blocks each being constructed in a thickness dimension of two or more veneer layers of wood glued together in an integrated face-to-face relation and with the wood grain of adjacent layers being disposed at right angles to each other to provide an integrated spacer block, and means fastening said spacer blocks in said depending relation in abutting engagement against the lower surface of said top plate member, said fastening means securing said spacer blocks to said plate member in an integral, non-rotating relation.

2. The pallet construction of claim 1 including a disc-like skid block secured flatwise on the bottom of each of said spacer blocks, said skid blocks being of a larger diameter than said spacer blocks.

3. The pallet construction of claim 1 including upper elongated strip members extending substantially the full width of said top plate member and being disposed intermediate said top plate member and said spacer blocks, an enlarged disc-like skid block on the bottom of each of said spacer blocks and elongated skid strips on the bottom of said disc-like blocks aligned with said upper strip members.

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