Sept. 8, 1959 R. F. HEATH 2,903,126

ADJUSTABLE PALLET

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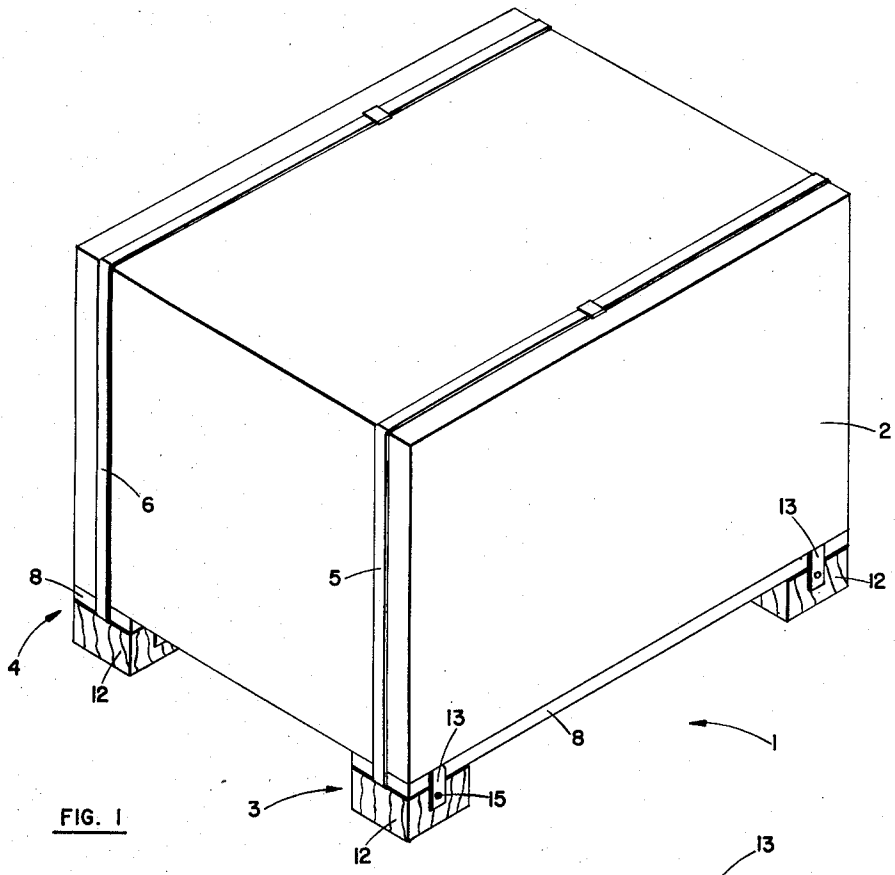


FIG. 1

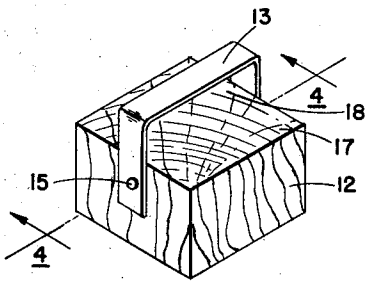


FIG. 3

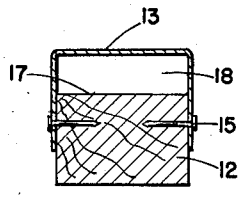


FIG. 4

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ADJUSTABLE PALLET

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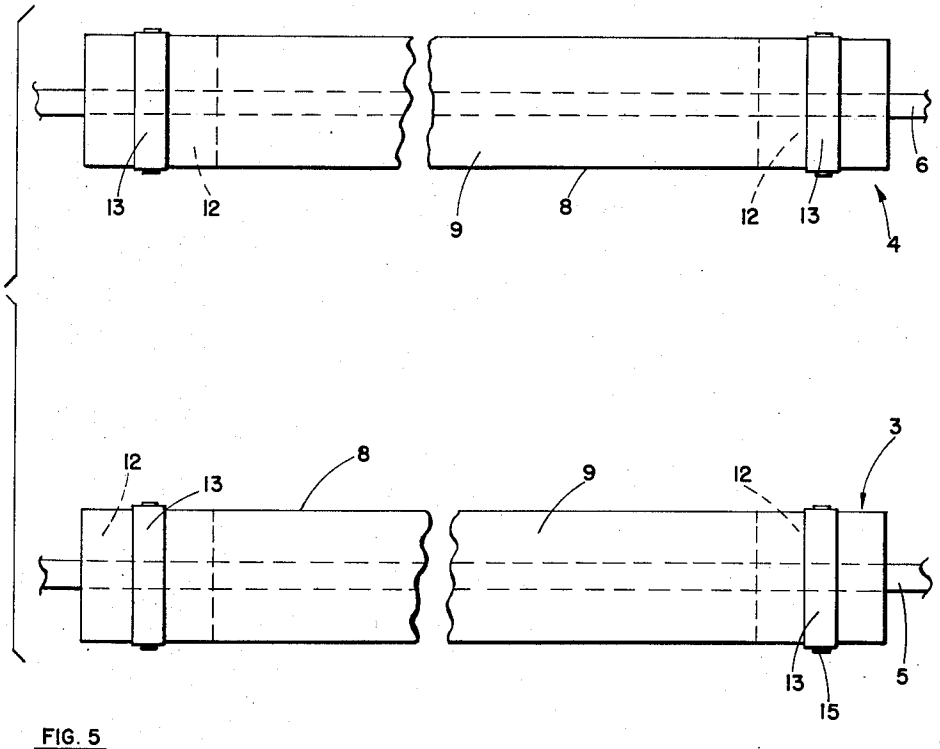


FIG. 5

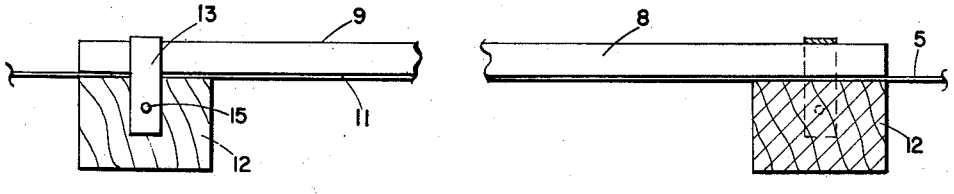


FIG. 2

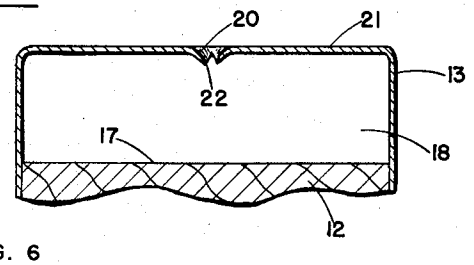


FIG. 6

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ADJUSTABLE PALLET

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4 Claims. (Cl. 206—46)

This invention pertains to an improved pallet and more particularly to an adjustable pallet for use in supporting of packages or other loads.

It has become common practice in handling and storing packages or other loads of substantial size or weight to support the same on pallets. Generally this type of device is in the form of a wooden platform having approximately the dimensions of the undersurface of the load. Spaced support rails position the platform off the floor and permit handling of the load by a fork lift truck. These pallets are relatively costly to construct and several sizes must be stocked to accommodate loads of different characteristics. No adjustability in the completed article is possible to compensate for various sizes and weights of packages. These pallets are susceptible to damage and often must be discarded after very little use.

Variations in the basic pallet design have been attempted in the past but these generally have been relatively complex and accordingly offered no price advantage over conventional design. In some instances these modified pallets depended upon the characteristics of the package involved for the attaching means between the pallet and the package, which was an inconvenience and limited their field of use.

Accordingly it is an object of this invention to provide a pallet which is economical to construct and simple to use. Another object of this invention is to provide a pallet which is fully adjustable to fit any load. A further object of this invention is to provide a pallet which may be made as strong as is necessary for any load involved. An additional object of this invention is to provide a pallet which can be used with any type of package. Yet another object of this invention is to provide a pallet which may be assembled readily from component parts which may be stored separately. A still further object of this invention is to provide a pallet which will maintain a load off of the floor and which will accommodate a fork lift truck. These and other objects will become apparent from the following detailed description taken in connection with the accompanying drawing in which

Fig. 1 is a perspective view of an assembled pallet and load;

Fig. 2 is a side elevational view, partly in section, of the pallet assembly;

Fig. 3 is a perspective detail view of one of the support pedestals of the pallet;

Fig. 4 is a sectional view taken along line 4—4 of Fig. 3;

Fig. 5 is a top plan view of the pallet units before the load is positioned thereon; and

Fig. 6 is an enlarged fragmentary sectional view of a pedestal block showing a modified form of retainer loop.

Referring to Fig. 1 of the drawing there is illustrated pallet 1 used to retain and support a package 2. The pallet is formed in two or more sections 3 and 4 and is held to the package by suitable straps 5 and 6.

As shown in Figs. 2, 3 and 4 each pallet unit includes an elongated support member 8 which may be merely

an ordinary board of rectangular cross section. Upper side 9 of support member 8 is adapted to engage and support the bottom wall of the package. Blocks 12, positioned beneath lower side 11 of the support member, form pedestals for the pallet unit. These may be low cost cubical wooden blocks, preferably arranged with the grain running vertically for maximum strength. The pedestal blocks are not integral with the support member but are freely slidable relative thereto. Preferably these blocks are substantially the width of member 8 to provide a firm, stable support. Each pedestal block includes a strap 13, the ends of which are secured to the sides of the block by nails 15. The strap forms a loop projecting from the block defining with upper surface 17 of the block a rectangular opening 18. The block and loop are arranged so that opening 18 is dimensioned to loosely receive support member 8 whereby the blocks are slidable relative to the support and may be positioned anywhere along the length of that member.

By this arrangement the support members and pedestal blocks may be stored separately and assembled when a load is to be palletized. Thus for a particular load two or more support members 8 will be cut to length so that they are coextensive with the dimension of the bottom wall of the package. The number of support members 8 depends upon the load, taking into consideration its dimensions, weight, rigidity and the like. Two or more blocks 12 are then slid onto each of the support members, the number of blocks depending again upon the characteristics of the load. Generally the blocks will be positioned at the ends of the support members with one or more intermediate blocks provided if the package requirements so dictate. The spacing of the blocks is made such that the pallet will accommodate a fork lift truck.

The support members with the blocks assembled thereon are then disposed in an aligned laterally spaced relationship as seen in Fig. 5. Straps 5 and 6, and additional straps if further support members are provided, are run between the upper surfaces 17 of the blocks and the lower surfaces 11 of the support members. The package is then disposed on top of the pallet units and the straps run over the package and tightened as indicated in the assembled view of Fig. 1. This may substantially embed the straps in the lower surfaces of the support members. In this manner the load is palletized in a few moments, yet the pallet may be made as strong as required for any particular package, and is fully adjustable to accommodate a load of any dimension or weight.

If desired the modification of Fig. 6 may be employed to assure that no movement of the pedestals relative to the support members will take place during handling or moving of the load. The provisions of this modification are not necessary to the successful operation of the invention. For this arrangement an opening 20 is pierced in upper portion 21 of loop 13 to form a depending toothed portion 22. This projecting portion will dig into the wood of the support member and retain the block in its position along the support. It should be observed, however, that with this modification the depending teeth do not project a sufficient distance to interfere with the freely slidable relationship of the pedestal block when it is initially disposed on the support member. It is important that the block be movable with respect to the support until it is in the desired position. Then merely loading the package on the pallet will force the toothed portion of the strap into the wood of the support member.

The foregoing detailed description is to be understood as given by way of illustration and example, the spirit and scope of this invention being limited only by the appended claims.

I claim:

1. In combination with a load to be palletized an adjustable pallet comprising at least two support units in laterally spaced relationship, each support unit including an elongated support member having an upper surface engaging and substantially coextensive with the bottom surface of said load, a strap circumscribing the combined outer perimeter of said load and said support member, at least two support blocks in laterally spaced relationship adjacent said support member on the side therof remote from said load, and loop means extending from said support blocks and over said upper surface of said support member so as to be interposed between said surface and said load, said loop means being dimensioned to loosely receive said support member such that said block means are slidable relative thereto and positionable in any laterally spaced relationship until the load is secured to said support member upon tightening of said strap whereupon said block means are immobilized from further sliding movement on the support members.

2. In combination with a load to be supported, an adjustable pallet comprising at least two support units in spaced relationship on the undersurface of said load, each support unit comprising an elongated support member of substantially rectangular cross section, each support member having an upper surface for engaging said undersurface of said load and substantially coextensive therewith, a strap for each of said support units extending around the combined perimeter of said load and the support member thereof and at least two laterally spaced support blocks, each block including an upper surface adjacent the lower surface of said support member, each support block including a strap secured to the sides thereof and extending beyond said upper surface thereof to form a loop and define a rectangular opening therewith dimensioned to receive said support member and permit movement of said block along the axis thereof, each of said loops being directly in contact with the applied load whereby each of said support blocks is immobilized against further sliding movement upon securement of the load to said support member by the tightening of said strap.

3. A device as recited in claim 2 in which said support members comprise wooden boards of substantially rectangular cross section, and said blocks are of wood and have a width substantially the same as that of said support members.

4. In combination with a load to be palletized; an adjustable pallet comprising at least two support units in spaced relationship on the undersurface of said load, each support unit including an elongated rigid support member having a flat upper surface area for engaging and supporting the load; at least two pedestal blocks, each of said pedestal blocks having an upper surface engaging the lower surface of said support member, each of said pedestal blocks further having a loop projecting therefrom and forming an opening therewith receiving said support member and dimensioned to permit sliding movement of said pedestal block relative to said support member in the direction of the longitudinal axis of the support member upon removal of the load, each of said loops normally being directly in contact with the load whereby each of the pedestal blocks is immobilized against sliding movement along its associated support member, and a strap circumscribing the combined outer perimeter of said load and said support member and passing through the opening formed by each of said loops and said blocks between the upper surface of said blocks and beneath said elongated support member.

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