Oct. 28, 1952 W. W. CUSHMAN 2,615,661

METAL PALLET

Filed Aug. 28, 1947

Fig. 1

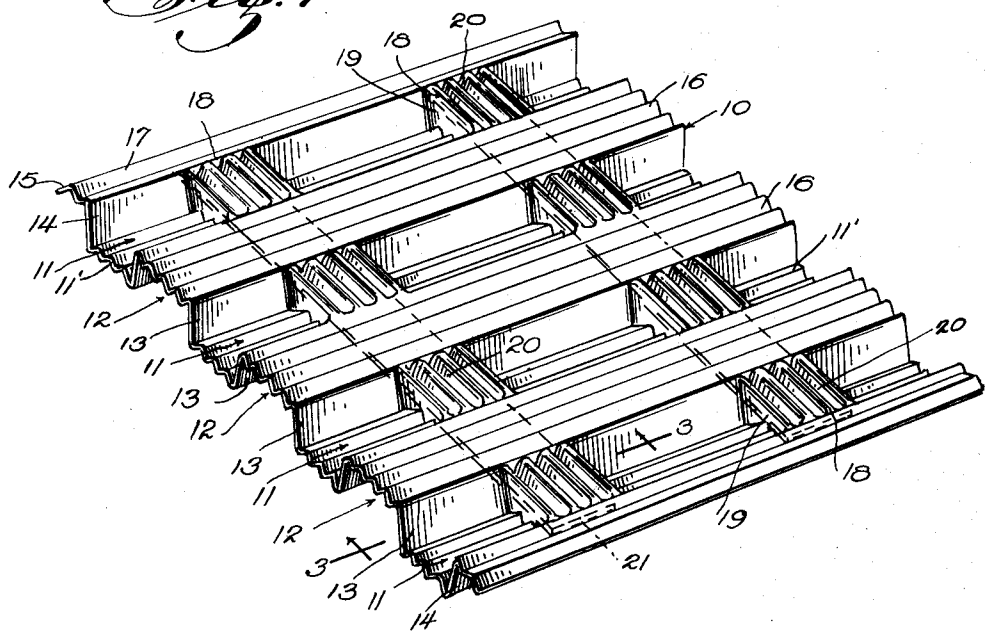
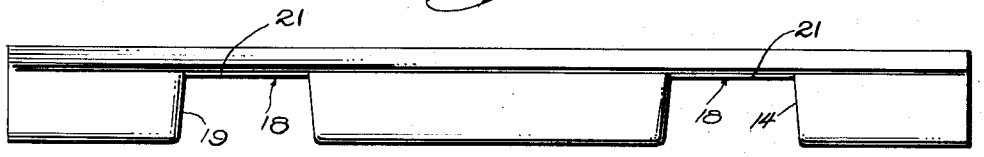


Fig. 2



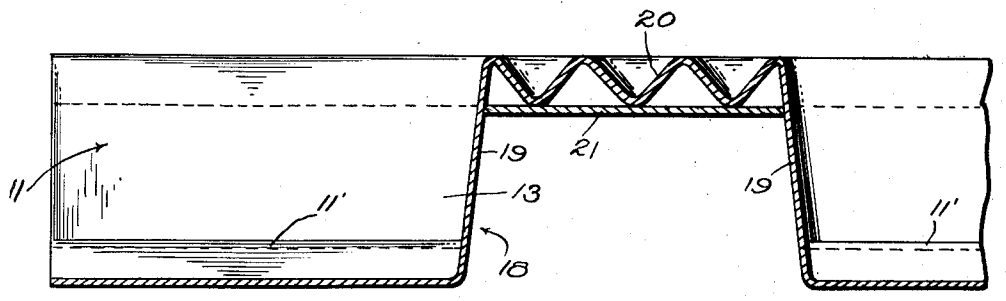


Fig. 3

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METAL PALLET

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4 Claims. (Cl. 248—120)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to pallets such as are used in the transfer and storage of goods and which are generally carried about by fork-lift trucks.

A primary object of the invention resides in the provision of a pallet of relatively light weight and which is provided with fork-receiving openings on each of its four edges.

Another object of the invention consists in the formation of a pallet of sheet metal so drawn and shaped as to provide maximum reinforcement of the sheet metal within the limits of the weight of the completed pallet.

A still further object of the invention resides in the provision of a sheet-metal pallet so constructed as to permit a plurality of them to be stacked, thereby reducing shipping and storage space.

Other objects and advantages of the invention will be apparent from the following description when taken in connection with the accompanying drawings in which,

Figure 1 is a perspective view of the completed pallet;

Figure 2 is an end elevational view thereof; and

Figure 3 is an enlarged sectional view taken on line 3—3 of Figure 1.

As previously intimated herein, a primary object of the invention is to provide a pallet of light weight, formed of sheet metal so constructed and designed as to be capable of receiving the forks of a fork-lift truck in any one of the four edges of the pallet; which may be stacked to conserve shipping and storage space and yet which is of sufficient strength and durability to adequately support and transfer such goods as it is intended to handle. To this end, the pallet is provided with channels open at their ends to receive the forks, and it is selectively corrugated for reinforcing purposes and the walls of the channels are tapered to permit stacking.

In the embodiment of the invention as illustrated herein, the pallet is indicated as a whole by the numeral 10, while the numeral 11 indicates a series of upwardly opening channels and the numeral 12 indicates a series of downwardly opening channels alternately arranged with respect to the channels 11 and parallel thereto. The walls forming the downwardly opening channels are indicated by the numeral 13 and are tapered upwardly so that these channels may

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receive the walls of the corresponding channels of another pallet on which it is stacked. The outer walls of the endmost channels 11 are indicated by the numeral 14, and are provided on their upper edges with flanges 15.

The bases of both the upwardly and downwardly opening channels are corrugated for reinforcing purposes, the corrugations of the upwardly opening channels being indicated by the numeral 11' and those of the downwardly opening channels by the numeral 16, while the flanges 15 are provided with one or more corrugations 17 for strengthening these latter members. The sheet-metal pallet is further reinforced by providing a series of two downwardly opening channels 18 extending at right angles to the previously described channels and intersecting them throughout the length of the pallet. The walls of these channels 18 are indicated by reference numeral 19, and are tapered upwardly for stacking purposes similarly to the walls of the other channels heretofore described, and the bases of these channels 18 are provided with corrugations 20 for reinforcing purposes. These last-described channels, in addition to imparting additional strength to the sheet-metal pallet, also provide openings adapted to receive the forks of a fork-lift truck at the opposite ends of the pallet.

This sheet-metal pallet is formed by a drawing process, and the gauge of metal employed will depend in great part upon the type of goods with which the pallet is to be used. Moreover, if desired, reinforcing plates 21 may be suitably secured to the bases of the corrugations 20 in the channels 18, thereby permitting the use of a lighter-gauge metal than would otherwise be required.

The pallet as described herein is of a comparatively light weight, inasmuch as it may be formed of a single sheet of metal; it is rendered strong and durable by reason of the various corrugations and intersecting channels, which also adapt the pallet for the reception of forks of a fork-lift truck from any one of four directions, and finally, these pallets may be readily stacked one upon another by reason of the tapered walls of the channels, thereby greatly conserving shipping and storing space.

While a specific form of the invention has been shown in all its details, it is to be understood that various minor changes may be made in the structural features without departing from the spirit of the invention, and it is intended that all such structural modifications be included within the scope of the appended claims.

I claim:

1. A single piece pallet of sheet metal having a series of upwardly opening channels and a plurality of downwardly opening channels extending transversely of the upwardly opening channels and in the same plane therewith.

2. A single piece pallet of sheet metal having two series of downwardly opening channels extending at right angles and in the same plane, the walls of each channel being tapered upwardly.

3. A single piece pallet of sheet metal having a series of spaced upwardly opening channels, corrugations formed in the bases of the upwardly opening channels and in the metal between said channels, and a series of downwardly opening channels extending transversely of the first-mentioned channels in the plane thereof.

4. A single piece pallet of sheet metal having a series of parallel channels alternately opening upwardly and downwardly, and a pair of downwardly opening channels extending transversely of said parallel channels and in the same plane

therewith, the walls of all the downwardly opening channels being tapered upwardly.

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