Aug. 10, 1948. C. D. FALLERT ET AL 2,446,914

PALLET CONSTRUCTION

Filed Sept. 30, 1944 2 Sheets-Sheet 1

Fig. 1.

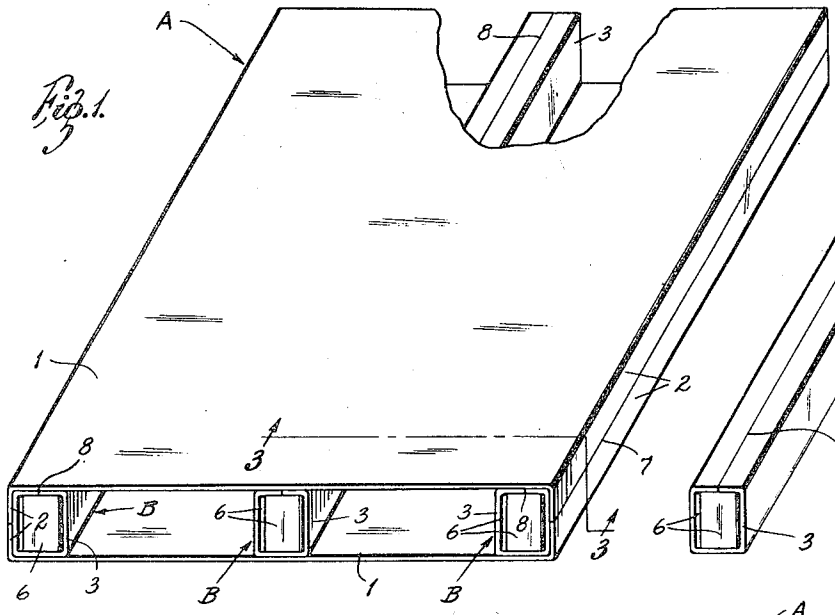


Fig. 2.

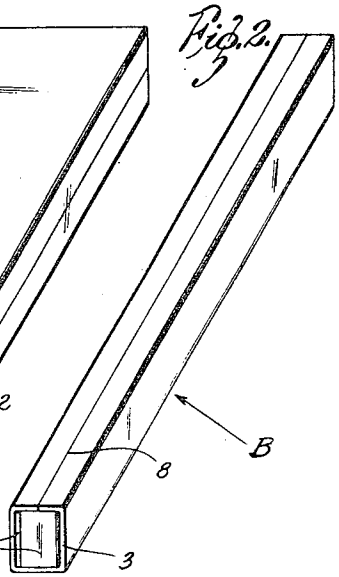


Fig. 3.

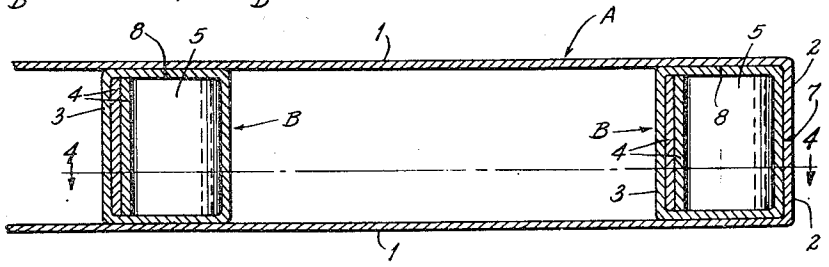
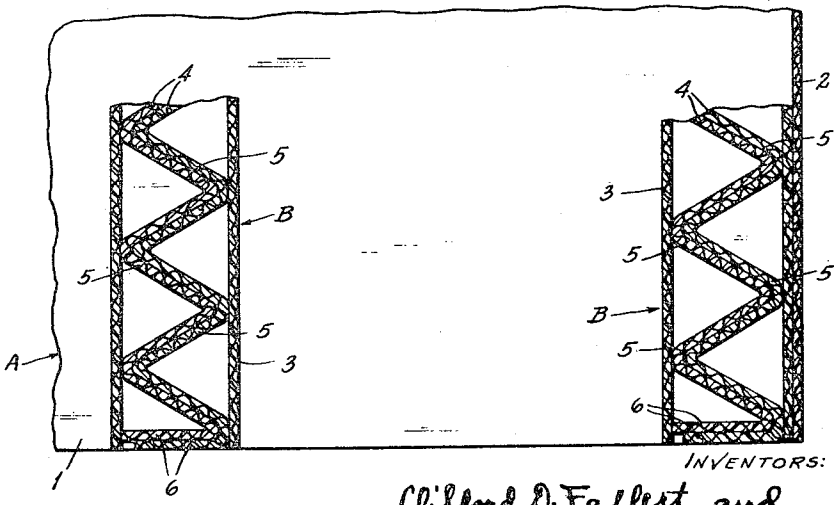


Fig. 4.



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Filed Sept. 30, 1944 2 Sheets-Sheet 2

Fig. 5.

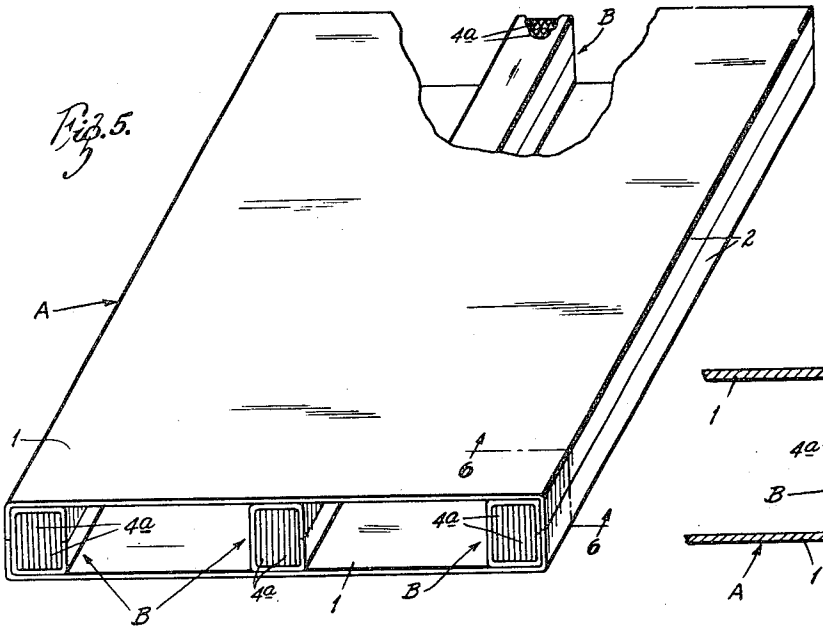


Fig. 6.

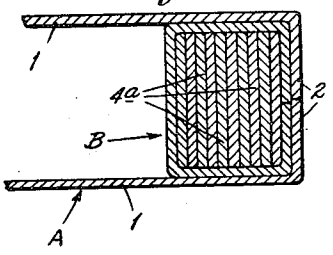


Fig. 7.

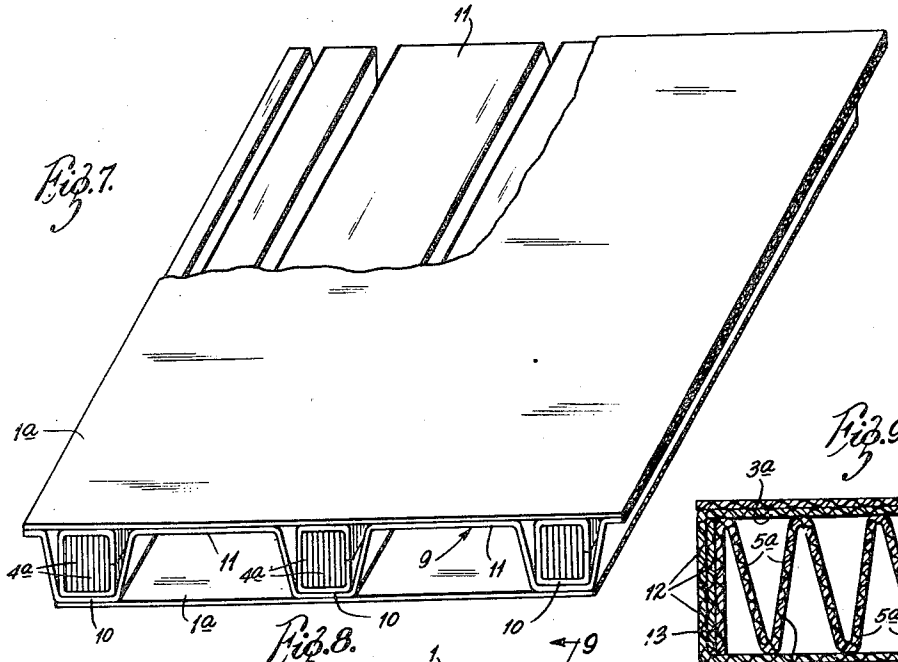


Fig. 8.

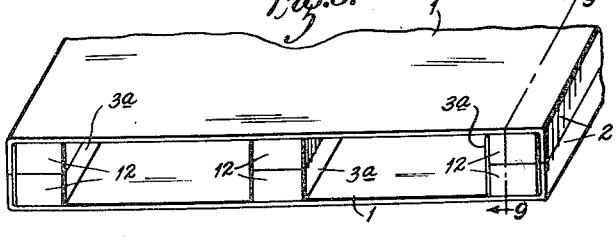


Fig. 9.

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PALLET CONSTRUCTION

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Application September 30, 1944, Serial No. 556,539

6 Claims. (Cl. 248—120)

1

This invention relates to platforms or pallets for supporting articles while being moved about on lift trucks and while being stored or shipped. The object of the present invention is to provide a pallet of corrugated board or other paper stock which is light in weight, simple in construction and inexpensive to manufacture and assemble and has sufficient strength to resist crushing strains and hard usage to which such devices are subject. The invention consists in the corrugated board pallet and in the construction, combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, which form part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a perspective view of a corrugated board pallet embodying my invention,

Fig. 2 is a perspective view of one of the preformed sill members for said pallet.

Fig. 3 is an enlarged fragmentary vertical cross-sectional view on the line 3—3 in Fig. 1,

Fig. 4 is a fragmentary horizontal sectional view on the line 4—4 in Fig. 3,

Fig. 5 is a perspective view of a pallet construction of modified form,

Fig. 6 is an enlarged fragmentary vertical cross-sectional view on the line 6—6 in Fig. 5,

Fig. 7 is a perspective view of another modified form of pallet,

Fig. 8 is a fragmentary perspective view illustrating another modified form of pallet; and

Fig. 9 is an enlarged fragmentary vertical longitudinal sectional view on the line 9—9 in Fig. 8.

The portable platform or pallet shown in sheet 1 of the accompanying drawings comprises a tubular shell or casing A of rectangular cross-section and preformed interior side and intermediate or center sills B, all made from corrugated board or other paper stock. The tubular shell or casing A comprises top and bottom deck sections 1 with side marginal flanges 2 that are disposed in edgewise abutting relation and form the vertical side walls of said shell, the corrugations of said deck sections preferably extending transversely of the sills B.

Each of the sill members B comprises a strip of corrugated board which is bent along longitudinal lines and its two longitudinal edges brought into abutting relation to form a tubular casing or housing 3 of rectangular section. The tubular sill casing 3 is strengthened and stiffened by means of one or more corrugated board strips 4 that are disposed vertically in said shell and extend continuously from end to end thereof.

2

The corrugations of the sill casing 3 preferably extend crosswise thereof while the corrugations of the interior shell reinforcing strips 4 are preferably disposed vertically. As shown in the drawings, the strips 4 are angularly bent from side to side in a zig-zag fashion or path to provide a series of longitudinally spaced substantially V-shaped ribs 5. The zig-zag strips 4 have a tight fit in the sill casing 3 and are preferably adhesively or otherwise permanently secured thereto along their top and bottom edges and along the ridges of their V-shaped ribs 5. The sides of said V-shaped ridges operate as inclined struts that resist endwise sliding movement of said strips in said casing. The sill reinforcing strips 4 terminate at their ends in end flaps 6 that are bent at right angles to form flush end closures for the ends of the sill casing 3. The closure flaps 6 at each end of the sill casing 3 are also adhesively secured edgewise thereto and flatwise to one another.

The top and bottom deck sheets 1 are adhesively or otherwise permanently secured flatwise to the top and bottom walls, respectively, of the side and center sill casings 3. The side marginal flanges 2 of the deck sheets are similarly secured flatwise to the outer side walls of the tubular casings of the side sills, said side walls serving as backing members for the butt joints 7 formed by the abutting edges of said flanges. The butt joint 8 formed by the meeting edges of the casing strip of each sill member B is preferably located in one of the top and bottom walls of the sill casing 3 and is covered and protected by the deck sheet secured to said wall.

The modified construction shown in Figs. 5 and 6 is similar to that shown in Sheet 1, except the reinforcing element for each sill is in the form of a snugly fitting preformed laminated filler comprising a plurality of flat corrugated board strips 4a which are adhesively or otherwise permanently secured together and to the sill casing.

The modified pallet construction shown in Fig. 7 comprises sill members like those shown in Figs. 5 and 6, flangeless corrugated board top and bottom decks 1a and an intermediate corrugated board member 9, which is bent to provide channels 10 for said sill members and upwardly offset flat arch supports 11 for the upper deck between said channels. In this modification, the bottoms of the sill receiving channels 10 of the intermediate sheet 9 are disposed between and adhesively secured to the bottom deck and the bottoms of the sill members; and the upper deck is adhe-

sively secured to the portions 11 of said intermediate member located between said sill receiving channels.

In the modified pallet construction shown in Figs. 8 and 9, each of the sill members has a reinforcing strip 4b therein that is bent in alternate directions from top to bottom of the sill casing 3a in zig-zag fashion to form longitudinally spaced V-shaped ribs 5a that are adhesively secured along their ridges to the top and bottom walls of the sill casing. At each end of the sill casing 3a, flaps 12 are bent inwardly from the side and top and bottom walls thereof and are adhesively secured together in overlapped relation to close the end of the casing; the adjacent end of the zig-zag strip 4b terminates in a flange 13 that is adhesively secured flatwise to the innermost pair of end closure flaps.

The hereinbefore described portable lift truck platform or pallet is made entirely of corrugated board and is thus light in weight, easily handled, simple in construction and inexpensive to manufacture and assemble. The corrugated board top and bottom deck sections are quickly and easily secured to the preformed corrugated board sill members. The corrugated board sill members are strong and rigid and thus stiffen and strengthen the pallet and enable it to resist the crushing strains to which it is subjected in service. The spaces between the center and side sills provide pockets at the ends of the pallet for entry of the elevating fork of a lift truck; and the deck, sill casing and sill reinforcing sheets have their corrugations disposed so as to increase the vertical load carrying capacity of the pallet. The deck sheets protect and strengthen the butt joints in the tubular casings of the sill members; and the outer sill members serve as backing members for the butt joints between the meeting edges of the side marginal flanges of the top and bottom deck sheets.

What we claim is:

1. A pallet construction comprising upper and lower decks and separate preformed sills interposed between and secured to said decks, all of corrugated board or the like, each of said preformed sills comprising a complete tubular casing and reinforcing strips mounted in said casing and extending in a nested zig-zag fashion substantially from end to end thereof.

2. A pallet construction comprising upper and lower decks and preformed sills interposed between and secured to said decks, all of corrugated board or the like, each of said preformed sills comprising a complete tubular casing and reinforcing strips mounted in said casing and extending in a nested zig-zag fashion substantially from end to end thereof, said casing having tabs constituting end closures therefor.

3. A pallet construction comprising upper and lower decks and separate preformed sills interposed between and secured to said decks, all of corrugated board or the like, each of said preformed sills comprising a complete tubular casing and a reinforcing strip mounted in said casing and extending in a zig-zag fashion substantially from end to end thereof.

4. A pallet construction comprising upper and lower decks and separate preformed sills interposed between and secured to said decks, all of corrugated board or the like, each of said preformed sills comprising a complete tubular casing and a reinforcing strip mounted in said casing and extending in a zig-zag fashion substantially from end to end thereof, said strip terminating at its end in tabs that constitute flush end closures for said casing.

5. A pallet construction comprising upper and lower decks and separate preformed sills interposed between and secured to said decks, all of corrugated board or the like, each of said preformed sills comprising a complete tubular casing and a reinforcing strip mounted in said casing and extending from side to side thereof in a zig-zag fashion substantially from end to end thereof.

6. A pallet construction comprising upper and lower decks and separate preformed sills interposed between and secured to said decks, all of corrugated board or the like, each of said preformed sills comprising a complete tubular casing and a reinforcing strip mounted in said casing and extending from top to bottom thereof in a zig-zag fashion substantially from end to end thereof.

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