Nov. 22, 1949 F. M. TALBOT 2,488,692

PACKING CASE

Filed March 29, 1947 2 Sheets-Sheet 1

Fig. 1.

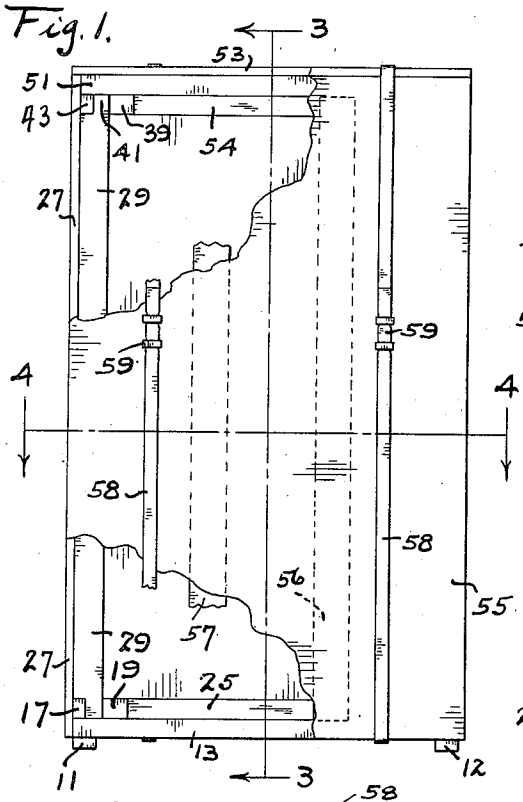


Fig. 2.

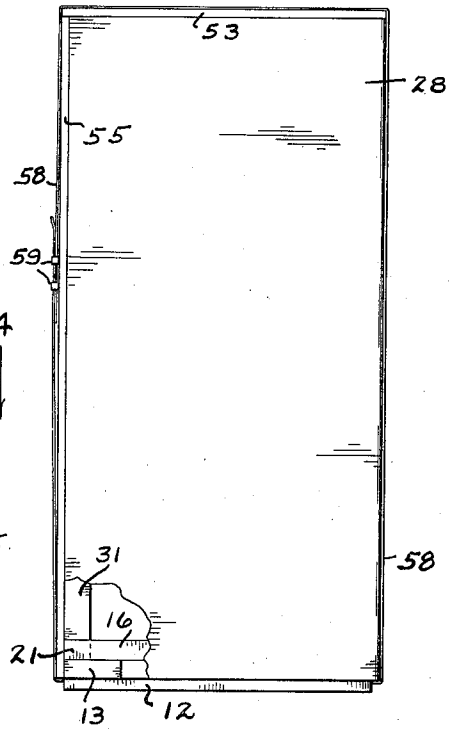


Fig. 3.

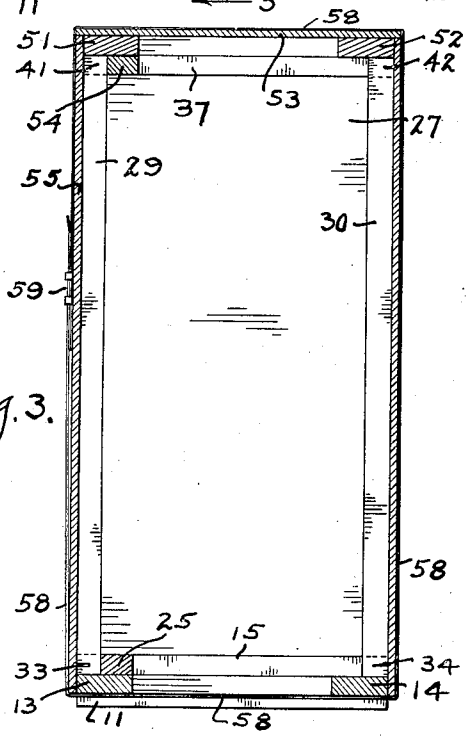
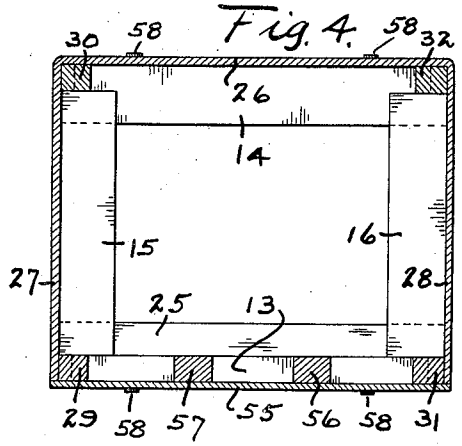


Fig. 4.



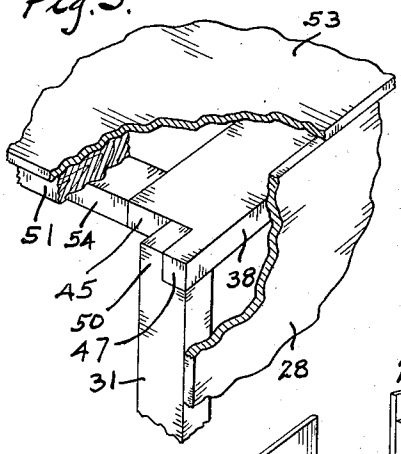
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Fig. 5.



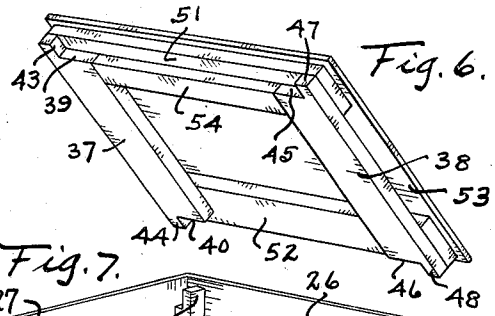
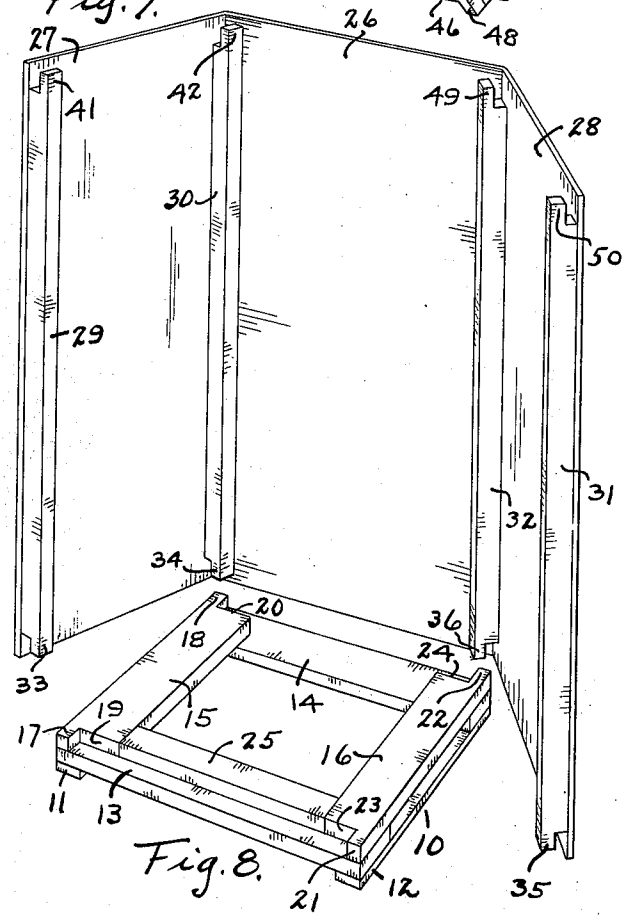


Fig. 6.

Fig. 7.



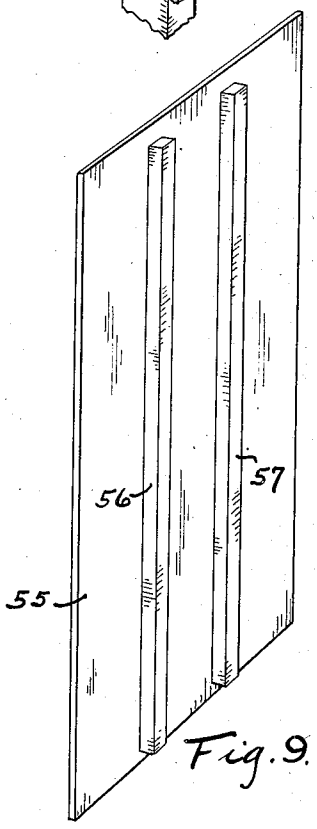


Fig. 9.

Fig. 8.

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PACKING CASE

Frank M. Talbot, Evansville, Ind.

Application March 29, 1947, Serial No. 738,048

1 Claim. (Cl. 217—12)

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This invention relates to a shipping crate of a type which may be stored and delivered to the user in a knocked down condition whereby a minimum of space will be occupied until erected. A primary object of the invention is to provide an exceedingly simple construction of minimum weight and yet which will be quite rigid. A further important object of the invention is to provide a base or pallet to receive the article to be encased and to supply the base mounted thereon, by means of which the encased article may be transported, and at the same time form the base for supporting the case structure thereabove in an interlocking manner.

A still further important object of the invention is to provide a structure whereby at least three of the side panels may be integrally hinged one to the other permitting use of fiber board or plywood and the like without requiring nailing at the hinged corners. Further it is important that the superstructure above the pallet interlock with the pallet as well as with a top cover whereby there is no tendency to spread apart. The structure is so provided that all parts thereof may be secured firmly on the pallet and one against it by simply passing one or more straps or bands around the erected case.

These and many other objects and advantages of the invention will become apparent to those versed in the art in the following description of one particular form as illustrated in the accompanying drawings, in which

Fig. 1 is a view in front elevation of a structure embodying the invention;

Fig. 2, a view in side elevation;

Fig. 3, a view in vertical section on the line 3—3 Fig. 1;

Fig. 4, a view in horizontal section on the line 4—4, Fig. 1;

Fig. 5, a view in detail on an enlarged scale of the front corner juncture between the panel side and the top of the case in perspective;

Fig. 6, a view in perspective of the top cover from the under side;

Fig. 7, a view in perspective from the inside of the side and rear panels;

Fig. 8, a view in top perspective of the base pallet and

Fig. 9, a view in perspective from the inside of the front panel.

Like characters of reference indicate like parts throughout the several views in the drawings.

In the form of the invention herein shown, I provide a base or pallet 10 built up in any suitable manner to have the dimensions to receive and

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support the article to be encased. In the present form, the base is provided with the two outside runners 11 and 12 across the front and back end portions on which are secured the rails 13 and 14. Then across the outer ends of these rails 13 and 14 are secured side rails 15 and 16. The rail 15 is provided with tongues 17 and 18 which extend entirely to the outer edges of the underlying rails 13 and 14 whereas the major ends 19 and 20 of the rail 15 are spaced inwardly respectively from those front and back rails 13 and 14, Fig. 8. Likewise the top side rail 16 is provided with tongues 21 and 22 which extend out to the outer edges of those rails 13 and 14, whereas the major end portions 23 and 24 of the rail 16 are spaced inwardly from those edges.

Preferably, while not necessarily so, a block 25 is laid on the top side of the rail 13 between the rails 15 and 16 to have its forward edges come within the plane of the ends 19 and 23.

Referring to Fig. 7, a rear panel 26 is provided to have side panels 27 and 28 hinged to its vertical edges. The side panel 27 has secured thereto along its front vertical edge and against its inside face a post 29. Likewise a post 30 is secured along the rear vertical edge of this panel 27 against its face so that when the panel 27 is folded to extend at right angles forwardly from the rear panel 26, the back face of the post 30 will then be in contact against the forward face of the panel 26. In like manner, posts 31 and 32 are secured against the inner face of the panel 28. The lower ends of these posts 29, 30, 31 and 32 terminate a distance above the lower edges of the panels 27 and 28 equal to the vertical thickness of each of the rails 15 and 16. From the lower ends of these posts, there extends downwardly in inwardly spaced relation from the panels 27 and 28 the tongues 33, 34, 35 and 36. The inward spacing of these tongues from the panels equals the horizontal thickness of each of the tongues 17, 18, 21, and 22 as measured from the outer side edges of the respective rails 15 and 16.

The horizontal length of each of the panels 27 and 28 is made to be substantially equal to the lengths of these rails 15 and 16 from end to end of their tongues. The horizontal length of the rear panel 26 is made to be equal to substantially the length of the rail 14. In assembling these side and rear panels on the pallet 10, the side panel 27 is assembled by having its lower edge portion brought around along the outer side of the rail 15; the lower edge portion of the panel 26 brought across the ends of the rails 15 and 16

across the rear rail 14; and the side panel 28 has its lower edge portion brought along the outer edge of the side rail 16. The tongues 33 and 34 are forced downwardly along the inner sides of the tongues 17 and 18 and likewise the tongues 35 and 36 are forced downwardly along the insides of the tongues 21 and 22. When this connection is made, the panels 27, 26, and 28 will then be held against horizontal displacement in any direction. The panels being on the outside of the rails 15 and 16, the various tongues cannot slip or slide inwardly. Also by reason of the opposing faces of the tongues 33 and 34 being in contact with the rail ends 19 and 20, and likewise the inner faces of the tongues 35 and 36 being in contact with the ends 23 and 24 of the rail 16, fore and aft movement is prevented. As indicated, the distance between rail ends 19 and 20 is made to be substantially the distance between the tongues 33 and 34, and likewise the distance between ends 23 and 24 of the rail 16 is made to equal substantially the distance between tongues 35 and 36.

As indicated in Fig. 6, a top frame is built up to have side rails 37 and 38. The rail 37 terminates by ends 39 and 40, the distance between which equals the distance between upwardly extending tongues 41 and 42 that are provided on the posts 29 and 30 spaced inwardly from the face of the panel 27. The side rail 37 is provided with end extended tongues 43 and 44 shaped to fit snugly between the post tongues 41 and 42 and the inner face of panel 27 when the top is in its closed position. In the same manner the other side rail 38 terminates by ends 45 and 46 spaced apart a distance equal to the spacing apart of the upper ends of the posts 31 and 32. Then there are the rail extending tongues 47 and 48 formed to fit between the post tongues 49 and 50 and the inside face of the panel 28. The top side rails 37 and 38 are spaced apart and maintained in proper alignment by the front and rear ties 51 and 52 which are secured to have those rails on their top sides thereof to have their front and rear edges respectively aligned with the outer ends of the respective side rail tongues 43, 47, for the ties 51 and 44, 48, for the tie 52. A cover panel 53 is secured to the top sides of the ties 51 and 52 in any suitable manner. The dimensions of this cover 53 are such that when the top structure is brought into position to have its respective tongues interengaged by the respective post tongues as above indicated, the outer edges of the cover 53 will be within the planes of the outer faces of the panels 26, 27 and 28. A filler block 54 may be used to fill in the space between the forward ends of the rails 37 and 38 to have its forward edge flush with the rail ends 39 and 45, the block 54 being secured to the tie 51.

Now with the top structure above described positioned to have its tongues interengage the post tongues, the upper portions of the panels 27, 26 and 28, are held against any tendency to shift laterally one from the other since these panels are then interconnected with the top in the same manner as the panels are interconnected with the base 10.

Thus it is to be seen that even though there be an article maintained on and secured to the base 10, such article being for example, a refrigerator of considerable weight, the side panels and the top may be brought around that article and interconnect one with the other. To complete the enclosure of the article, the front panel 55 is provided to fit against the front faces of the posts 29 and 31 and also at least across the ends of the cover tongues 43 and 47 and the base tongues 17 and 21. In order to reinforce the panel 55, reinforcing strips 56 and 57, Fig. 9, are secured against the inner face of the panel 55 to have their lower ends bear against the forward edge of the member 25, and the upper ends against the filler block 54. Now in order to secure the members thus fitted together and hold them against displacement during movement of the base 10 and the article carried thereon, preferably one or more straps 58 herein shown as two, Fig. 1, are carried entirely around the assembly under the base 10 between the runners 11 and 12 so as to be free of the floor or ground, upwardly vertically across the back panel 26 horizontally forwardly over the top assembly, and upwardly and downwardly respectively across the front side of the panel 55 to be interconnected at the joints 59 in any suitable manner such as is well known to those versed in the packing art where devices are well known to interengage and interlock ends of flexible metal straps. Of course, it is entirely feasible to nail or employ screws through the respective tongues to secure the panels, base and top one to the other, particularly where a one-time use only of the case is had.

While I have herein shown and described my invention in the one particular form it is obvious that structural changes may be employed without departing from the spirit of the invention, and I therefore do not desire to be limited to that precise form beyond the limitations which may be imposed by the following claim.

I claim:

A collapsible box construction comprising in combination, a pallet base; a relatively rear panel; opposing side panels, each side panel being hinged by a rear vertical end portion to the respective vertical end portions of the rear panel, whereby the side and rear panels are an integral unit foldable into substantially U shape; a vertical corner post secured to and inside of said unit along each of said hinged portions terminating by top and bottom ends substantially at the respective top and bottom edges of said unit; a front post vertically disposed along the inside and secured to the front edge portion of each of said side panels, each of said front posts terminating by top and bottom ends substantially at the top and bottom edges of said side panels; said corner and front posts each having its top and bottom end notched out on that side adjacent the side panels in each instance to provide respectively upwardly and downwardly extending tongues spaced from those side panels; fore and aft extending tongues on said base at its side edges, said fore and aft tongues being sized and located to receive said corner and front post downwardly extending tongues inside thereof and have said base edges be in abutment with the inside faces of said side panels; abutments on said base inwardly spaced from said base tongues abutting the front and back faces respectively of said corner and front posts, whereby the lower end of said unit is maintained against fore and aft and lateral slipping on said base; and a top cover; side members carried by said cover having fore and aft extending tongues entering respectively between said side panels and said upwardly extending tongues on said corner and front posts; and abutments on said cover side members bearing against the opposing front and rear faces of said corner and front

posts, whereby said top cover maintains the top end of said unit in conformance to the lower end portion thereof.

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