July 30, 1963 D. F. COFFEY, JR 3,099,351

SHIPPING CRATE

Filed Dec. 12, 1960 2 Sheets-Sheet 1

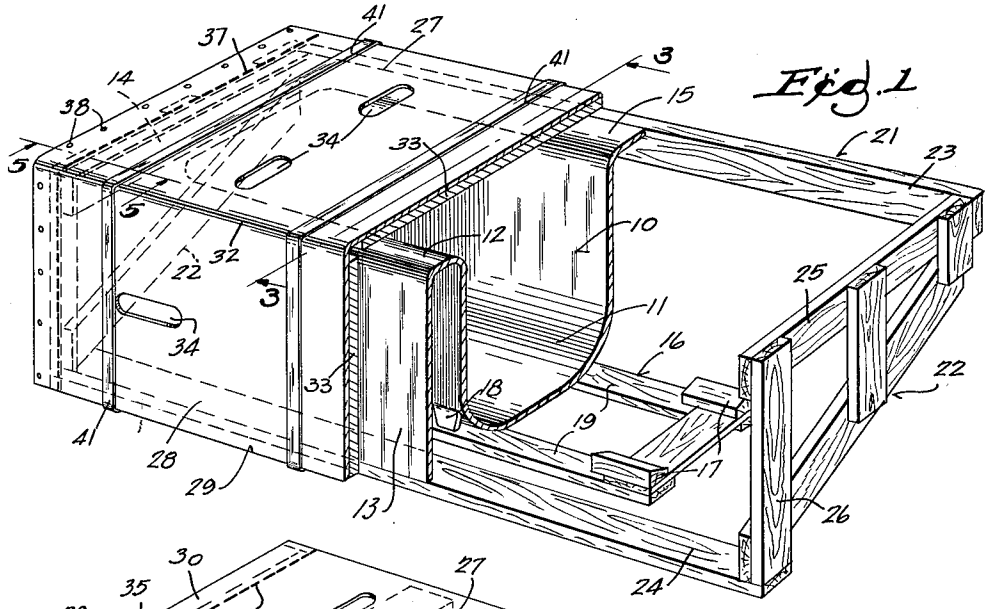


Fig. 1

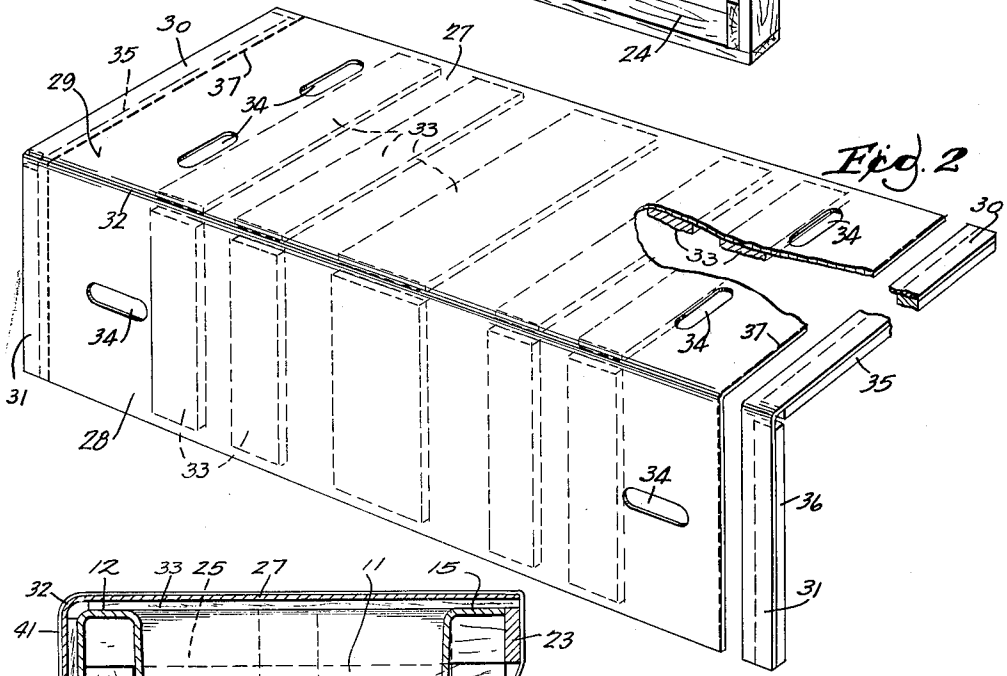


Fig. 2

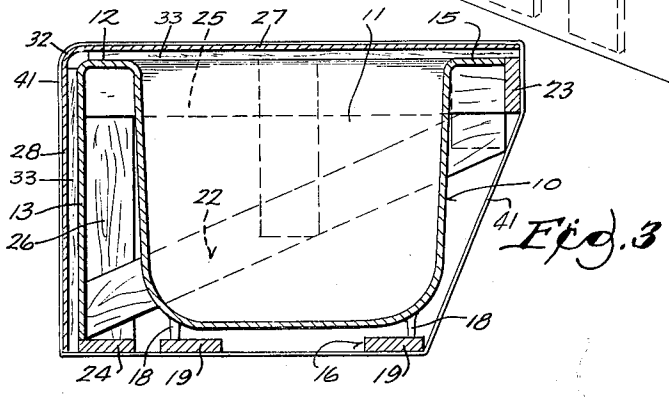


Fig. 3

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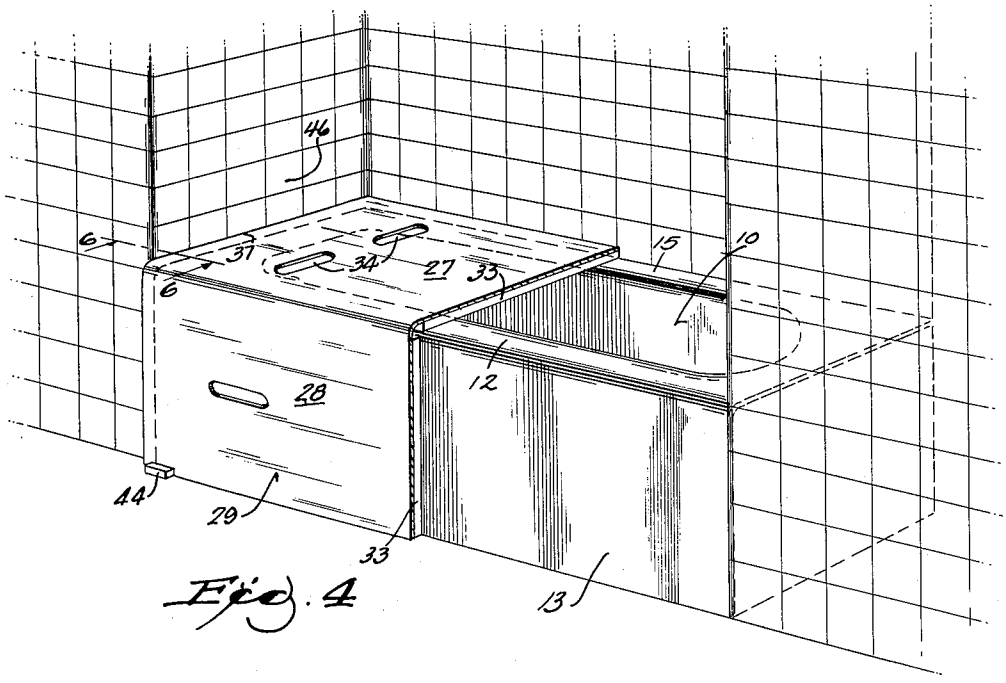


Fig. 4

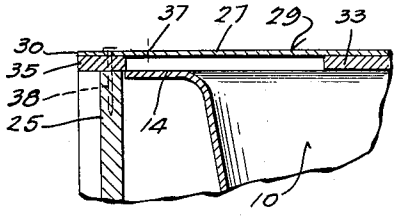


Fig. 5

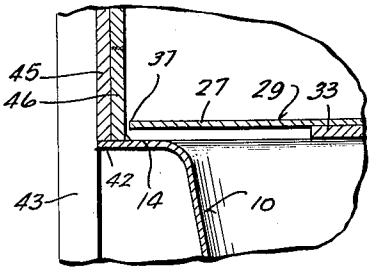


Fig. 6

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SHIPPING CRATE

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4 Claims. (Cl. 206—46)

This invention relates to a shipping crate.

The shipping crate of the present invention is particularly adapted to protect marrable surfaces of a plumbing fixture, both during shipment and after plumbing installation thereof in a building.

Prior art shipping crates are ordinarily discarded after the fixture has been delivered and plumbing installation thereof commences. The fixture is normally plumbed in prior to completion of carpentry, plastering and electrical work. Accordingly workmen must work about the plumbed-in fixture to complete such work. In the course of these finishing operations the porcelain or like marrable surfaces of the fixture may be damaged by such workmen, falling building materials, tools, etc.

Heretofore, separately fabricated protective covers have in some instances been applied to the plumbing fixture during such finishing operations. Such covers, however must be procured separately, they are not always readily available on the job site and in any event constitute an expense item over and above that of the fixture and its shipping crate.

According to the present invention, the shipping crate in which the tub is transported includes as a component a protective cover which not only protects the marrable surfaces of the plumbing fixture during shipment, but also is adapted to protect such marrable surfaces during finishing operations performed on the building after the fixture has been plumbed in. This makes it unnecessary to separately procure such a protective cover and effectuates savings both in time and expense, inasmuch as the cover is simply part of the shipping crate and is thus readily available at no extra cost. These factors so encourage use of the cover that losses otherwise incurred because of fixture damages are substantially reduced.

Other objects, features and advantages of the invention will appear from the following disclosure in which:

FIG. 1 is a perspective view partially broken away and showing in section a bathtub and shipping crate therefor embodying the present invention.

FIG. 2 is a perspective view of the protective cover component of the shipping crate per se, portions being broken away to expose details of construction thereof.

FIG. 3 is a lateral cross section taken along the line 3—3 of FIG. 1.

FIG. 4 is a perspective view showing the tub partially installed in a building and illustrating how the protective cover of the shipping crate is replaced over the marrable surfaces of the tub to protect it during finishing operations, portions of the cover being broken away and shown in cross section.

FIG. 5 is a fragmentary cross section, taken along the line 5—5 of FIG. 1.

FIG. 6 is a fragmentary cross section, taken along the line 6—6 of FIG. 4.

While the invention is illustrated herein in connection with the protection of a conventional bathtub, the invention is not thus limited as it applies to any plumbing fixture or the like which has one or more marrable surfaces subject to damage after the fixture has been plumbed into the building but before finished work has been completed therein.

The tub 10 typically has a hollow dropped portion 11, a front ledge 12, a front apron 13, end ledges 14 and a

rear ledge 15, all having marrable surfaces such as porcelain or the like.

To transport the tub from the plumbing manufacturer to the building site, it is placed in a shipping crate, usually made of wood or the like. In crates embodying the present invention there is a skid frame 16 having cradle blocks 17 on which the dropped portion 11 of the tub is supported. Tub portion 11 conventionally has integrally cast feet 18 which bear on the longitudinal runners 19 of the skid frame 16.

In addition to the skid frame 16, crates embodying the present invention have an outer frame 21 with triangularly shaped end sub-frames 22 and longitudinal stringers 23, 24 which interconnect the sub-frame ends 22. Each sub-frame 22 has a top rail 25 and a front post 26 to which the respective faces 27, 28 of protective cover 29 are fastened. The faces 27, 28 of the cover 29 may desirably consist of panels of a corrugated cardboard sheet bent at 32 substantially along a corner of the crate.

The panels 27, 28 of the cover are reinforced along their undersurfaces by laterally elongated reinforcing cleats collectively indicated by reference character 33, these being made of wood or the like. Cleats 33 are discontinuous across bend 32 and are stapled or otherwise fastened to the cover 29. The respective panels 27, 28 are desirably provided with hand holes 34 conveniently located to facilitate handling the crate. Cleats 33 on the undersurface of cover 27 bridge across the hollow of dropped tub portion 11 to support the weight of any object dropped thereon or of a person standing thereon.

The extreme end margins 30, 31 of the cover sheets 27, 28 are also provided with end cleats 35, 36 disposed marginally beyond guide lines 37 which are printed on the sheets and are shown dotted in the drawing. As will herinafter appear, marginal cover portions 30, 31 beyond the dotted lines 37 are removed from the cover sheets in the course of preparing the cover for replacement over the plumbing fixture after the crate has been opened and the fixture removed therefrom.

The cover 29 is securely fastened to the wooden frame 21 by fastening it with nails 38 or the like to the rails 25 and posts 26 of the sub-frames 22. The shipping crate is completed about the fixture 10 by securing all of the parts together by the metal bands 41 which completely encircle the crated fixture, as is best shown in FIGURES 1 and 3.

After the crated tub has been transported and received at the building site where the tub is to be installed, the plumber will sever the bands 41 and will remove the cover 29 from the crate by severing the marginal portions 30, 31 from the main body of the cover sheets 27, 28 by cutting along the dotted lines 37. Accordingly, the cover portions within the guide lines 37 is removed as a unit therefrom. The skid frame 16 and outer frame 21 are now removed from the tub and may be discarded. The cover 29 is carefully saved.

Note from FIG. 5 that the end ledges 14 (and apron 13) of the tub 10 terminate marginally beyond the dotted lines 37 on the cover 29. Accordingly, when the cover 29 is detached from the crate by severing its cover sheets 27, 28 along the printed lines 37, the body portions of sheets 27, 28 will be shorter than the tub. When the cover is replaced over the tub marginal portions of the ledges 14 and apron 13 will be exposed.

The tub is plumbed in prior to the application of lath, plaster or tile etc., to the building walls to build the tub into the walls. As illustrated in FIG. 6, the tub will be plumbed in with the edge 42 of its ledges 14 in abutment with the wall stud 43. After the tub has been positioned and plumbed in, the shortened cover 29 is replaced thereover, as is shown in FIGS. 4 and 6. The cover is held temporarily in place by any convenient means, for ex-

ample by cleats 44 temporarily fastened to the sub-floor. As shown in FIG. 6, the edges of the sheets 27, 28 will be spaced from the studs 43 a sufficient distance so that the cover will not interfere with application thereto of lath 45 and a finishing ply 46 such as plaster or tile 46. The finish ply is typically bonded directly to the ledges 14, 15 and to the marginal portions of the apron 13. Accordingly, the workmen may finish off the building walls around the tub in a flush type or "built in" installation without interference from the cover 29, which remains in position to protect the marrable surfaces of the tub against falling plaster, tile, tools, etc.

After finish work has been completed in the room in which the plumbing fixture is installed, cleats 44 are removed from the floor and the cover 29 lifted off of the tub and discarded. Accordingly, the cover is not removed from the tub until all of the workmen, except the floor layers, have completed their work and there is no longer any danger of damage to the tub surfaces from that source.

I claim:

1. A shipping crate for a plumbing fixture having a marrable surface, said crate comprising frame means within which said fixture is housed for shipment, and a cover having a completely removable protective face portion covering the marrable surface of the fixture to protect the same during shipment of the fixture, said frame means comprising end subframes and said cover comprising a continuous sheet having end margins and fastening means connecting said end margins to said end subframes, and means offset inwardly from the fastening means defining lines of severance of the fastened margins of said sheet and along which said face portion of the cover within said lines of severance is completely detached from the frame means, leaving the end margins of the cover attached to the end subframes, prior to plumbing installation of the fixture and pending replacement of the protective face portion of the cover over said marrable surfaces of the fixture after plumbing installation of the fixture to protect said surface until final removal of the protective face portion of the cover.

2. The crate of claim 1 in combination with a plumbing fixture having edges adjacent said end frames, said lines of severance being offset inwardly of the edges of the fixture for exposure of such edges of the fixture for building such edges into the walls.

3. The crate of claim 1 in combination with a plumbing fixture having two marrable surfaces at adjacent sides thereof, said cover having complementary faces intersecting at a corner of the crate.

4. The combination of claim 3 in which said fixture comprises a hollow tub, one of said faces of the cover being disposed over the hollow of said tub and having cleats along the undersurface of said face and bridging across the hollow of the tub.

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