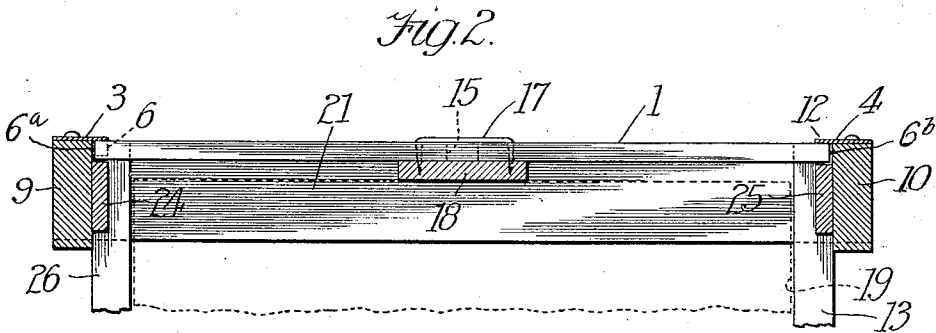
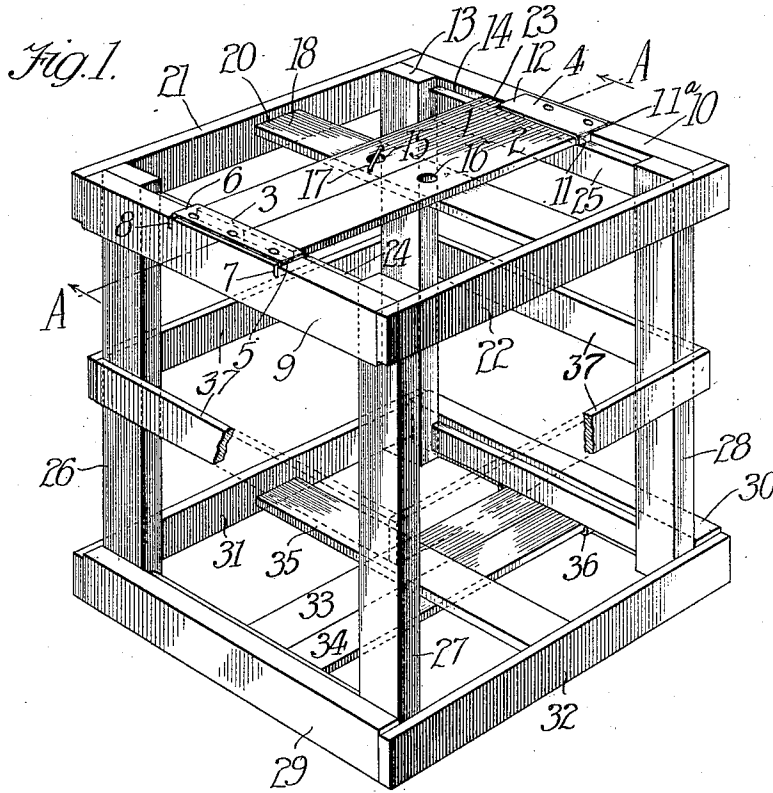


G. E. HALLARON.
SHIPPING CRATE.

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1,017,539.

Patented Feb. 13, 1912.



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UNITED STATES PATENT OFFICE.

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SHIPPING-CRATE.

1,017,539.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE E. HALLARON, a citizen of the United States of America, and a resident of Chicago, Cook county, State of Illinois, have invented certain new and useful Improvements in Shipping-Crates, of which the following is a specification.

The main objects of my invention are to provide an improved form of comparatively inexpensive wooden crate for shipping metal cans or caddies, from which crate the parts can be readily detached to permit the removal of a can without breaking the crate, which parts are adapted to be readily replaced and reattached for the purpose of shipment of the can in the same crate.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the shipping crate with the parts assembled as when a can is inclosed, but omitting the can from this view. Fig. 2 is a vertical section, partly broken away, taken on the line A—A of Fig. 1, indicating the position of the can by dotted lines.

This invention relates particularly to the construction of one or both ends of the crate to permit of the removal of the can.

The crate includes uprights 13, 26, 27 and 28 arranged in spaced relation and connected together at their upper and lower ends respectively by top members 7, 10, 21, and 22 and bottom members 29, 30, 31, and 32. The said top and bottom members are secured to the outer faces of the uprights and preferably are flush with the ends thereof. The uprights intermediate their ends are connected together by brace members 37. Secured to the inner faces of the top members 9 and 10 and extending from the uprights 13, 26 to the uprights 27, 28 are supporting members 24, 25 for the end pieces, the former associating with the member 9 and the latter with the member 10. The members 24, 25 are arranged below the top edges of the members 9, 10. In the construction shown, the end pieces 1 and 2 are detachably seated in pockets 6^a, 6^b formed by metallic strips 3, 4 in connection with the members 9, 10, 24 and 25. The strip 3 is fixedly secured to the top of the member 9 and is of a width as to project over the member 24. The ends of the strip 3 are bent downwardly as at 5, 6 and are seated in

slots 7, 8 formed in the top of the member 9. The projecting portion of the strip 3 forms the top wall of the pocket 6^a, while the bottom wall is formed by the member 24, the inner wall by the member 9 and the end walls by the bent ends 5, 6 of the strip 3. The strip 4 is secured to the top of the member 10 and is of a width as to project over the member 25. The strip 4 is of less length than the strip 3 and has one of its ends bent downwardly as at 11 and which engages in a groove 11^a formed in the top wall of the member 10. The bent end 11 of the strip 4 is in alinement with the bent end 5 of the strip 3. The top wall of the pocket 6^b is formed by the projecting portion of the strip 4, while the bottom wall is provided by the member 25, the inner wall by the member 10 and one end wall by the bent end 11, the other end of the pocket 6^b is open. The end 12 of the strip 4 is positioned far enough from the upright 13 so that the end pieces 1, 2 can be pulled over toward said upright 13 and lifted off the crate through the clearance at 14.

The end piece 1 has an aperture or depression 15 located midway between its ends, and the end piece 2 has a similar aperture or depression 16 also located midway between its ends. The purpose of these depressions is to facilitate the insertion of an instrument for the purpose of pulling out the staple 17 which has its points driven into the cross piece 18. An advantage of this form of fastening is that the dealer to whom the crate is shipped is likely to see at a glance how the end pieces and cross piece can be removed without injury to or detachment of the other parts of the crate. The purpose of having the depressions 15 and 16 midway between the ends of said end pieces is to facilitate the crating, so that either end of either of said end pieces may be put in first, without requiring any special selection or care in fitting the parts together. The parts are made of such size that the cross piece 18 bears firmly upon the top of the can 19 indicated by dotted lines in Fig. 2. The cross piece 18 has its end 20 limited in movement by the frame member 21, so that when the end piece 1 and cross piece 18 are secured together by means of the staple 17, the end piece 1 cannot be shifted into the contracted opening 14 or free from the overlapping part of the strip 4, and is thus firmly held in the

position shown in Fig. 1. The opposite end of the cross piece 18 is limited in movement by the frame member 22.

To remove the can from the crate, the operator will first draw the staple 17, as by means of an instrument inserted under it in the depression 15, and the end 23 of said end piece 1 may then be moved over toward the upright 13 and raised out of the clearance 14. The end piece 1 may then be drawn free from the pocket formed by the strip 3. The end piece 2 may then be pushed over toward said clearance 14 and similarly removed. The cross piece 18 may then be readily removed, as it is held in position only by the can and one of the end pieces 1 or 2 when seated in the pockets formed by the strips 3 and 4, together with the staple 17. While the two end pieces 1 and 2 are preferred, it is obvious that one may be used alone in connection with the cross piece 18 and the staple 17.

The frame members 24 and 25 are secured to the frame members 9 and 10 respectively, and serve as supports for the ends of the end pieces 1 and 2, but are not necessary to such support when the can and the cross piece 18 are in normal position in the crate, as said end pieces are supported underneath by the can. The lower part has the end pieces 33 and 34 and cross-piece 35, which may be supported in similar manner to the corresponding end pieces 1 and 2 and the cross piece 18, as by means of a metal strip 36 corresponding to the metal strip 3, and another metal strip (not shown) corresponding to the metal strip 4. If desired, however, the end pieces or cross pieces at the bottom of the crate may be permanently secured. It will usually be advantageous to have both the top and bottom of the crate made with detachable end pieces and cross pieces, as shown at the upper part of Fig. 1, for convenience in removing the can from either end of the crate.

To open the crate, the end pieces and cross piece will be removed from one end,

and that end then turned down so that the crate can be readily lifted off from the can. This is the usual way of removing the cans from crates of this kind, since it is usually inconvenient to lift the filled can out of the crate.

Although but one specific embodiment of this invention is herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claim.

I claim:

A shipping crate comprising a frame having the end bars of its side walls provided on their inner faces with means to constitute supports, a plate secured to the top of one of said bars, extending across the support and provided with a pair of depending flanges, said plate with its flanges and support forming a pocket, a plate secured to the top of the other of said bars, overlapping the support and having a flange at one end and forming in connection with the support a pocket open at one end, said last-mentioned plate of less length than the first-mentioned plate thereby providing a clearance for the inserting and withdrawing of the ends of an end piece into and out of said pockets, an end piece having its ends positioned in said pockets, a cross piece extending transversely of and below said end piece and retained between the opposite members of said frame whereby a lateral shifting of the cross piece is arrested, and means for detachably securing said end piece and cross piece together for retaining the ends of the end piece in said pockets thereby closing that end of the frame provided with the pockets.

Signed at Chicago this 17th day of October, 1910.

GEORGE E. HALLARON.

Witnesses:

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