July 19, 1927. 1,636,607

J. S. HORTON

CRATE

Filed March 30, 1923 2 Sheets-Sheet 1

Fig. 1.

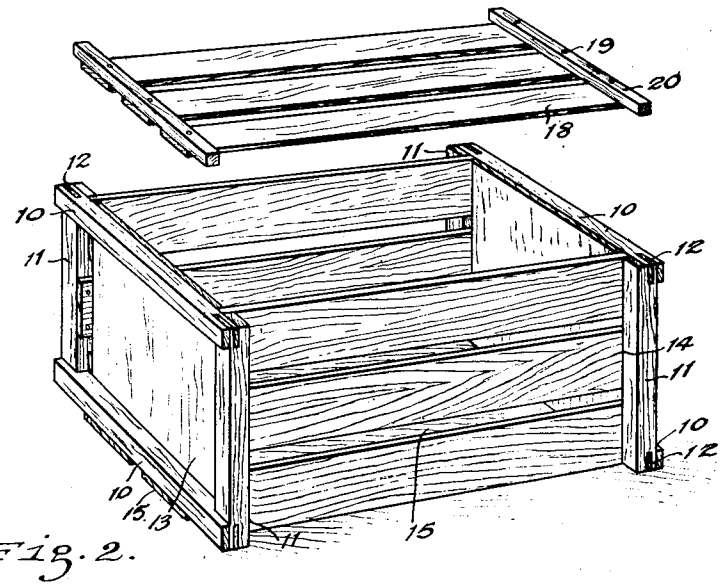
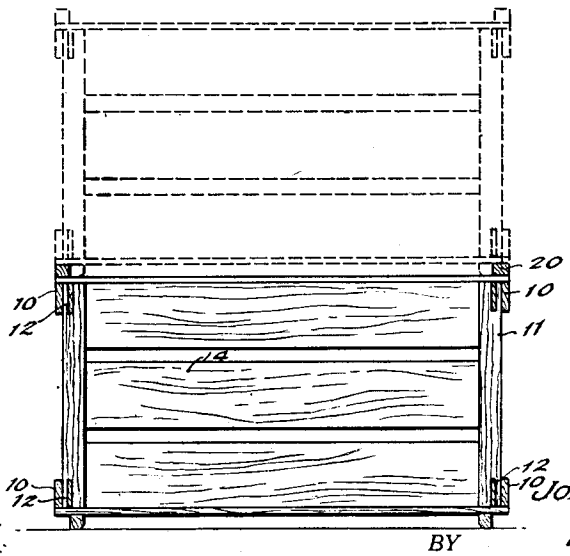


Fig. 2.



WITNESSES

INVENTOR

JOHN S. HORTON

BY

ATTORNEYS

July 19, 1927. 1,636,607

J. S. HORTON

CRATE

Filed March 30, 1923 2 Sheets-Sheet 2

Fig. 3.

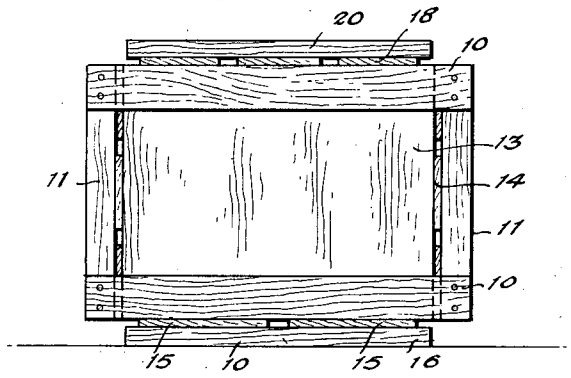


Fig. 4.

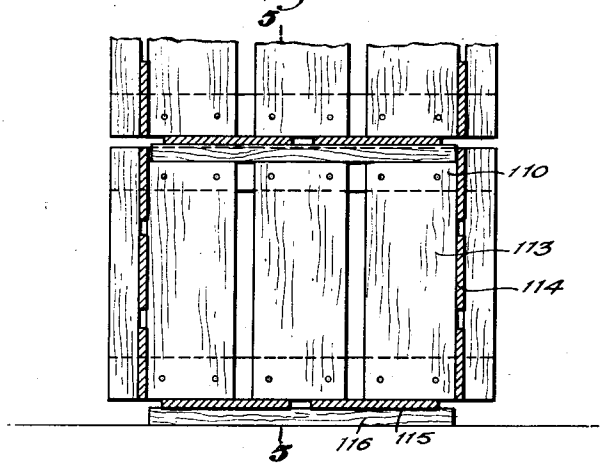
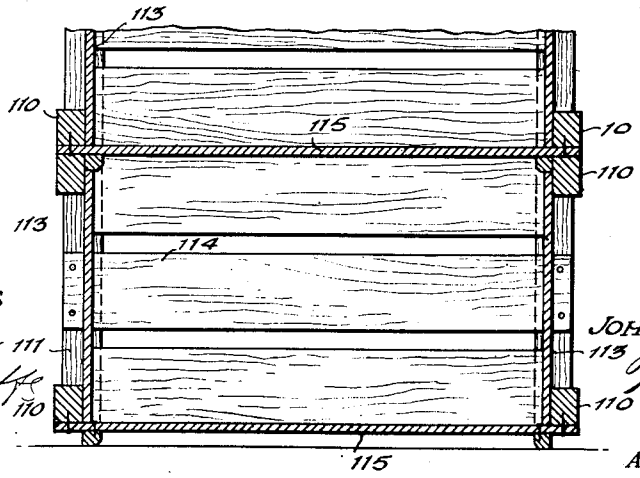


Fig. 5.



WITNESSES

INVENTOR
JOHN S. HORTON

ATTORNEYS

Patented July 19, 1927. 1,636,607

UNITED STATES PATENT OFFICE.

JOHN SEYMOUR HORTON, OF MILFORD, DELAWARE.

CRATE.

Application filed March 30, 1923. Serial No. 628,879.

My invention relates to shipping crates and is more particularly designed as an improvement on the crate forming the subject matter of United States Letters Patent, No. 764,945, granted to me July 12, 1904. In common with the patented crate referred to, the present invention has for a general object to provide a crate of a form to permit stacking of a number of crates in a freight car or storage without liability of the fruit contained in the crate being damaged.

The special object of the present invention is to improve the crate in various particulars especially with respect to providing means for effecting an inter-engagement between stacked crates.

The nature of the invention and its distinguishing features and advantages will clearly appear as the description proceeds.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of practical examples of the invention.

Figure 1 is a perspective view showing my improved crate and illustrating the top thereof raised above the body of the crate;

Figure 2 is a side elevation indicating by dotted lines the position of the upper crate when the two crates are used;

Figure 3 is an end elevation of the crate shown in Figures 1 and 2;

Figure 4 is a transverse vertical section of the crate body showing a modification designed to permit a series of crates to be stacked and inter-engaged without the provision of covers on the crates;

Figure 5 is a longitudinal vertical section, that is to say, a sectional view at right angles to Figure 4.

The body of the crate comprises two end frames each formed of top and bottom bars 10 and vertical bars 11 at the sides of the crate, said bars 10 and 11 being usually joined together in practice in rectangular arrangement by means of a double tenon and mortise joint 12. Fastened to said end frames are vertical end closures 13 consisting of one or more members. The end frames are connected by longitudinal side slats 14 or equivalent closure elements and longitudinal bottom slats 15 or the like, the side slats 14 being fastened to the inner sides of the vertical side bars 11 of the end frames, and the bottom slats 15 being fastened to the under sides of the bottom bars 10 of the end frames. Cleats 16 are fastened at the ends of the crate to the under sides of the bottom slats 15 by nails, screws, or other suitable fastening means and set back or inward from the end surfaces of the crate a distance equal to the width of the bottom bars 10.

The top of the crate in the present example is made with longitudinal slats 18 and at each end of said top it is provided with a top cross bar or cleat 20, suitably fastened to the slats 18 by nails or other fasteners 19. The top or cover is adapted to lie over the crate with the slats 18 resting on the end bars 10. Any suitable means may be employed for fastening the top or cover in place on the crate body. With the cover secured in position the bottom cleats 16 of one crate will be disposed between the bars 20 provided on a crate beneath by the presence of the cover in position and as forming part of the crate.

In the form shown in Figures 4 and 5 the crate is designed to be used without the cover for which purpose top bars 110 corresponding with the top bars 10 project above the end slats 113, said end slats 113 being shortened for the purpose. With the bottom cleats 116 thus disposed between the top bars 110 of the next crate beneath, the bottom 115 of the upper crate will rest upon said top bars 110 of the crate beneath, the engagement of the bottom cleats 116 with the top bars 110 effecting a locking engagement, said bottom cleats 116 being disposed with their ends between the top side slats 114 of the crate. Thus, the bars 110 by being disposed projecting above the tops of the end slats 113 correspond with the bars 20 of the cover when said cover is secured in place on the crate and therefore a fixed part of the crate as are the bars 110.

The length of the cleats 116 is sufficiently less than the width of the crate for the said cleats to be accommodated snugly between the opposite side slats of a subjacent crate to have a bracing relation thereto when two or more crates are stacked.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the exact details herein illustrated, since, manifestly, the same can be considerably varied without departure from the spirit of the invention as defined in the appended claim.

Having thus described my invention, I claim:

A crate comprising a pair of end frames, longitudinal slats between said end frames providing the side and bottom walls of the crate, the bottom slats extending the entire length of the crate, a top for said crate comprising longitudinal slats extending the entire length of the crate, said top slats connected in rigid relation by transverse cleats secured to the upper face of the slats at their ends, transverse cleats secured to the bottom face of the bottom wall adjacent each end, said bottom cleats being set back from their respective ends a distance equal to the width of the top transverse cleats, the end frames being substantially equal in thickness to the combined width of the said top and bottom cleats at their respective ends, whereby the crates may be stacked in superposed spaced relation and the weight of the superposed crates supported entirely within the plane of the end frames.

JOHN SEYMOUR HORTON.