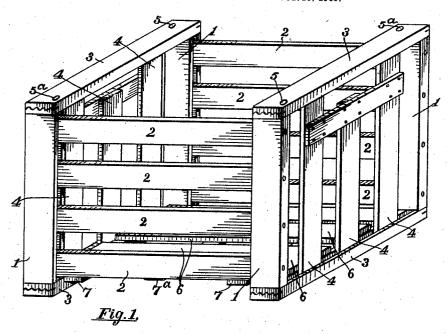
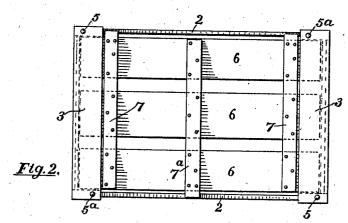
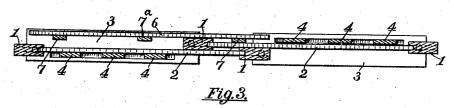
C. L. DOLPH.
FOLDING CRATE OR BOX.
APPLICATION FILED OCT. 26, 1905.







Witnesses

Edward W. Monroe. Georgiana Chale Inventor
Charles L. Dolph

By
Luther V. Moulton
Ottorney

## UNITED STATES PATENT OFFICE.

CHARLES L. DOLPH, OF CADILLAC, MICHIGAN.

## FOLDING CRATE OR BOX.

No. 823,515.

Specification of Letters Patent.

Fatented June 19, 1906.

Application filed October 26, 1905. Serial No. 284,500.

To all whom it may concern:

Be it known that I, CHARLES L. DOLPH, a citizen of the United States, residing at Cadillac, in the county of Wexford and State of 5 Michigan, have invented certain new and useful Improvements in Folding Crates or Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others 10 skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in folding crates; and its object is to provide a crate that will fold with its parts all in hori-15 zontal planes and within the plane of the outer portions thereof, to provide improved means for detachably securing the bottom in place, and to provide the device with various new and useful features, hereinafter more 20 fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which-

Figure 1 is an isometrical perspective of a device embodying my invention; Fig. 2, an 25 inverted plan view of the same, and Fig. 3 a sectional detail showing the device folded.

Like numbers refer to like parts in all of

the figures.

1 refers to the corner-posts, which are con-30 nected in pairs by horizontally-disposed side strips 2, said posts and strips forming the opposite sides of the crate. These sides are pivotally connected to the top and bottom sills 3, forming the upper and lower members 35 of the end portions. These sills are connected by vertically-disposed strips 4, arranged near the outer edges of the sills, which sills and vertical strips constitute the end portions of the crate. Each corner-post is piv-40 oted at one end of a side to the sills, near the outer angles of the same, as at 5, and at the other end of a side near the inner angles of the same, as at 5<sup>a</sup>. Thus when the device is folded by turning the sides and ends to paral-45 lel planes the sides will assume a horizontal position in different planes one above the other and adjacent to the respective vertical strips 4 opposite which each side is folded, and the sills 3 of the respective ends will be 50 in alinement and in the same plane.

The bottom consists of any convenient number of bottom boards 6, connected by transverse cleats 7, preferably three, arranged substantially as shown, the outer-55 most cleats 7 extending at one side a sufficient distance to engage the lower edge of the

horizontal side strip 2 and the middle cleat 7<sup>a</sup> extending at the opposite side to extend beneath the opposite strip 2. The bottom is first inserted, with the ends of the cleats 7 un- 60 der one side, and the opposite side strip is sprung outward until the end of the cleat 7ª will pass the same, when said strip will spring back above the end of the cleat 7ª, and the bottom will thus be securely and detachably 65 held in place. The respective corners of this bottom engage the respective corner-posts 1, and thus securely hold the crate in rectangular form when assembled, as described. This bottom can be placed within the plane of the 70 sills 3, as shown in Fig. 3, and the device thus folded in compact form, with all of its members in horizontal planes. Obviously the sides, ends, and bottom may be closed to form a folding box instead of a crate, and a 75 cover may be added, if desirable, without departing from my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters

Patent, is-

1. A folding crate comprising sides and ends, said ends having inwardly-projecting top and bottom sills, corner-posts to the sides and pivots connecting the post at one end of each side with the sills near their outer angles 85 and pivots connecting the other ends of the sides with the sills near their inner angles.

2. A folding crate comprising ends having inwardly-projecting top and bottom sills, sides pivotally connected to the sills each 90 side having one end pivots located near the outer side of the end sills, and the other end pivots located near the inner side of said sills whereby the sides fold in separate parallel planes and between the end sills, and the sills 95 of the respective ends are arranged in the same plane and end to end.

3. A folding crate comprising corner-posts connected in pairs by horizontal strips, said posts and strips forming the sides of the crate, 100 top and bottom sills connected in pairs by vertical strips arranged near the outer edges of the sills, pivots connecting the post at one end of each side with one pair of sills near their outer angles, and pivots connecting the 105 posts at the other ends of the sides of the sills near their inner angles.

4. In a folding crate, in combination with pivotally-connected sides and ends one side being flexible, a bottom having a fixed pro- 110 jection at one side adapted to extend beneath one side of the crate, and a fixed projection at the other side of the bottom adapted to spring the flexible side of the crate outward, and engage the under side of the same, to detachably secure the bottom in place.

5. In a folding crate, corner-posts connected by flexible horizontal strips, top and bottom sills connected by vertical strips, pivots connecting the ends of the corner-posts with the sills, a bottom adapted to en-10 gage the respective posts at the respective corners, and fixed cleats on said bottom, said

cleats projecting rigidly outside the opposite sides of the bottom to engage the lower edges of the horizontal strips and to detachably secure the bottom in place.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES L. DOLPH.

Witnesses: JOHN P. WILCOX, H. Hansen.