No. 879,855. PATENTED FEB. 25, 1908.

C. W., E. L. & M. D. CRONBAUGH.

FOLDING CRATE.

APPLICATION FILED FEB. 18, 1907.

Fig. 1

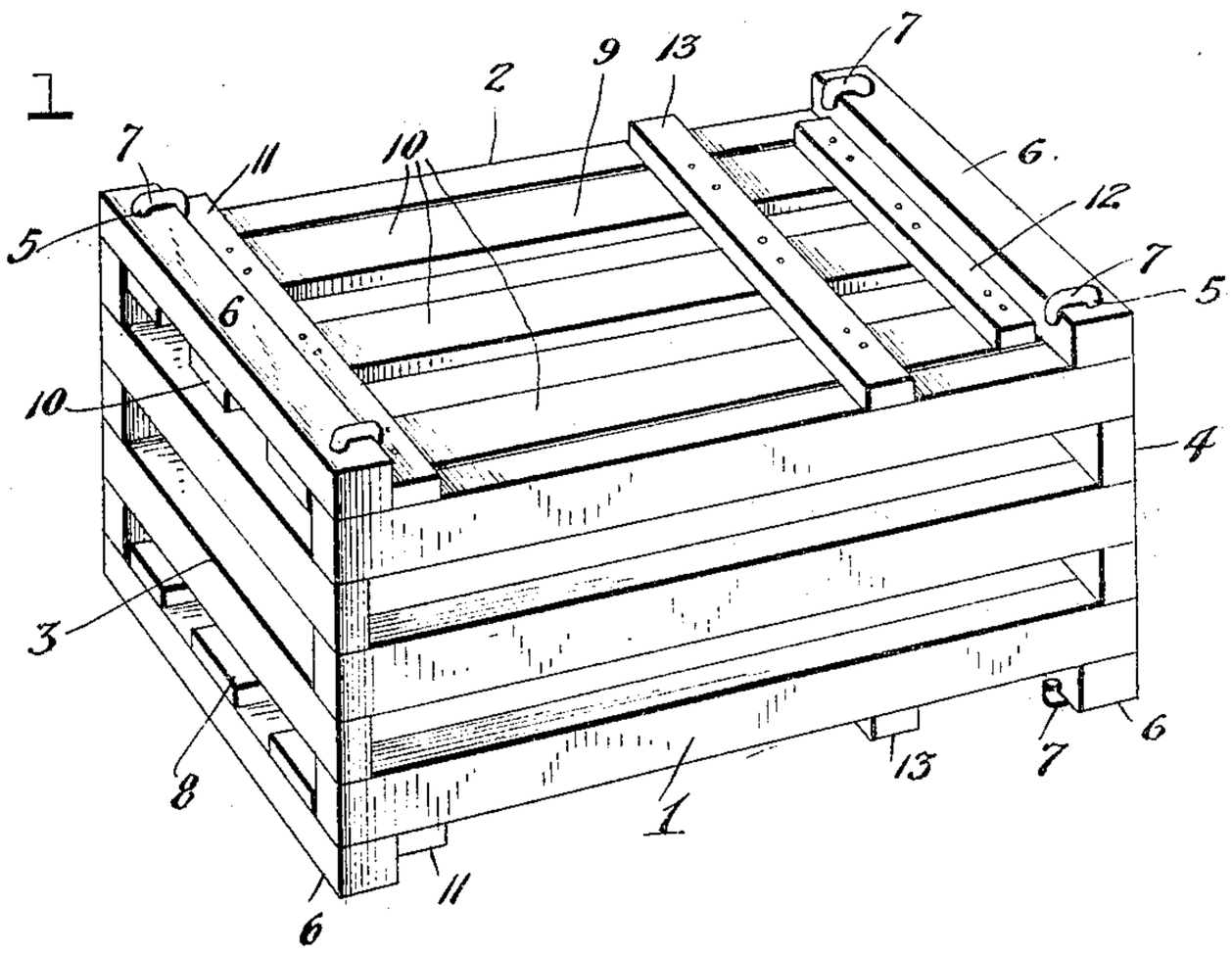
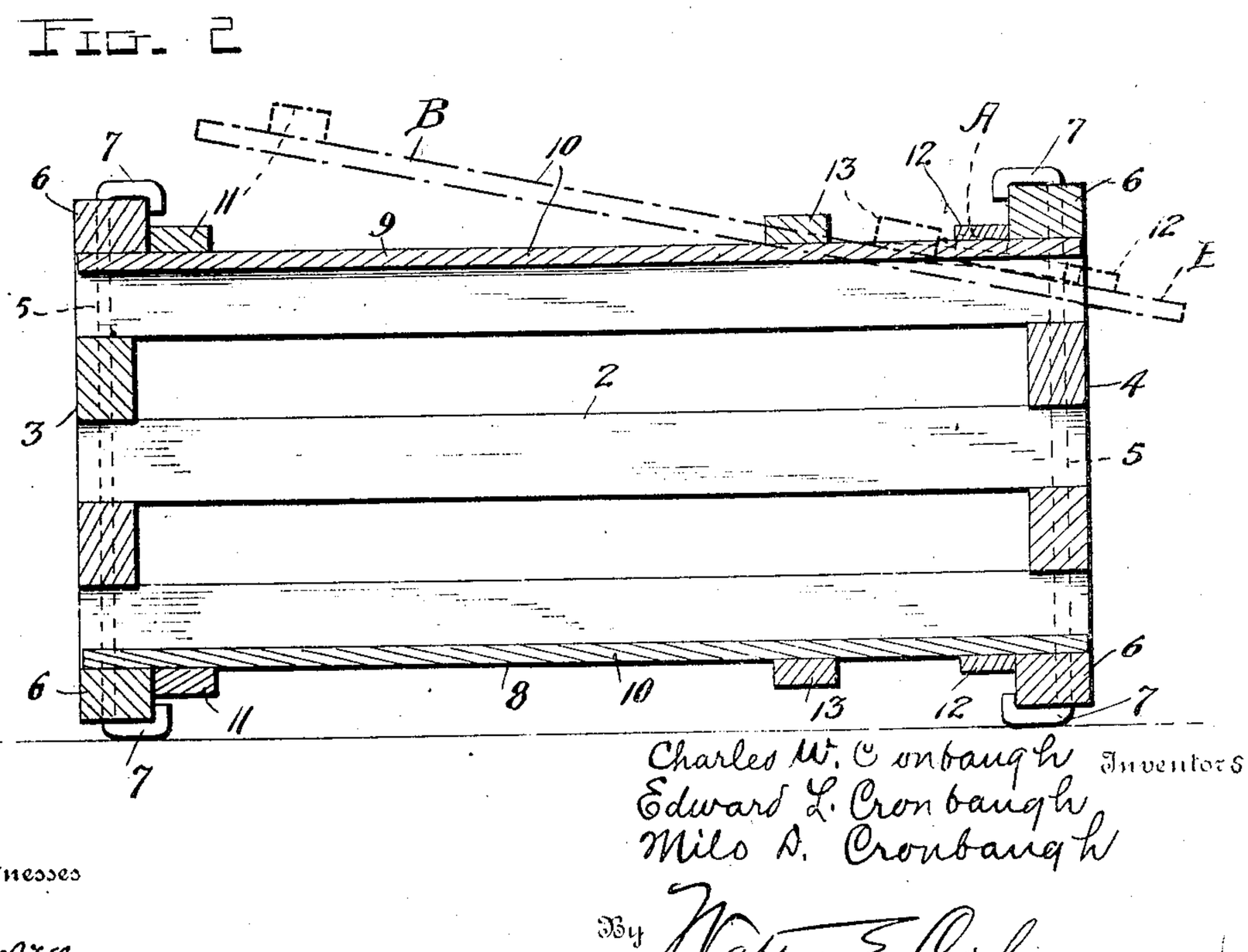


Fig. 2



Witnesses

L. O. Little.
J. M. Copenhaver.

Inventors
Charles W. Cronbaugh
Edward L. Cronbaugh
Milo D. Cronbaugh

By Watson E. Coleman
Attorney

UNITED STATES PATENT OFFICE.

CHARLES W. CRONBAUGH, EDWARD L. CRONBAUGH, AND MILO D. CRONBAUGH, OF ADA, OHIO.

FOLDING CRATE.

No. 879,855. Specification of Letters Patent. Patented Feb. 25, 1908.

Application filed February 18, 1907. Serial No. 358,061.

To all whom it may concern:

Be it known that we, CHARLES W. CRONBAUGH, EDWARD L. CRONBAUGH, and MILO D. CRONBAUGH, citizens of the United States, residing at Ada, in the county of Hardin and State of Ohio, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to improvements in folding crates and similar containants, and it consists in the novel construction, combination and arrangement of parts hereinafter described and claimed.

The object of the invention is to provide a simple and practical device of this character which may be produced at a comparatively small cost and which will be very effective in accomplishing its purpose.

Another object of the invention is to provide a folding crate which may be quickly and easily set up for use or folded together so as to occupy but little space, and which when set up for use will be exceedingly strong and rigid.

The above and other objects are accomplished by the improved construction illustrated in the accompanying drawings, in which,

Figure 1 is a perspective view of our improved crate, and Fig. 2 is a vertical longitudinal section.

The present embodiment of our invention is in the form of a rectangular crate having sides 1, 2 and ends 3, 4 pivoted together so that they may be folded in substantially parallel relation. Both the sides and the ends are formed of parallel slats or bars, and they are connected by vertical pivot rods 5 which have their projecting ends bent inwardly over the inner edges of the outermost slats or bars 6 of the ends 3, 4 so as to provide longitudinal-extending runners 7 upon which the crate is supported and upon which it may be readily slid over a floor, the bottom of a wagon or the like. By bending the ends 7 of the pivot rods in the manner shown, the connection between the sides and ends of the crate is also materially strengthened.

The crate also consists of a bottom 8 and a top 9. These parts are similar in construction, and hence interchangeable so that either may be considered the top or the bottom of the crate. Each consists of parallel, longitudinal slats 10 united adjacent to one end by a cross-bar 11 and adjacent to the other end by a cross-bar 12. The latter is of less length than the former and of slightly less length than the space between the outermost bars or slats of the sides 1, 2 so that it may pass between the sides and under one of the bars 6 of one of the ends, as presently explained. This end cross-bar 12 is also of less thickness than the cross-bar 11 so that by springing inwardly the adjacent ends of the slats 10 it may be passed under the end bar or slat 6. An intermediate cross-bar 13 also unites the slats 10 and is arranged adjacent to the cross-bar 12. This cross-bar 13 is similar to the cross-bar 11 and is of such length that its ends project beyond the outermost slats 10 and engage the edges of the sides of the crate. The end cross-bars 11, 12 are so spaced apart that they engage the inner edges of the end bars or slats 6 of the ends 3, 4 and thereby prevent the crate from collapsing when its top and bottom are in the position shown in the drawings.

The operation of the crate is as follows: When it is desired to open the crate, that is, remove its top 9, the end cross-bar 12 is pressed downwardly until it may be slid under the adjacent bar 6, the downward movement of the cross-bar 12 being permitted by the spring or resiliency of the adjacent ends of the slats 10, as will be readily seen upon reference to Fig. 2 in which the dotted lines A represent the bar 12 and the adjacent ends of the slats sprung downwardly. When in this position, the cover 9 may be slid longitudinally to disengage the opposite ends of the slats 10 from the cross-bar 6 at the opposite end of the crate. When said ends of the slats 10 are thus disengaged, the end of the top containing the cross-bar 11 may be lifted to the dotted lined position B shown in Fig. 2, whereupon the top may be entirely removed by drawing its opposite end, containing the cross-bar 12, from between the uppermost bars of the end 4 of the crate. The bottom 8 may be removed in a similar manner. When both the top and bottom of the crate are removed it may be readily folded by pressing its two sides together. When it is desired to apply the cover to the crate the operation above described is reversed. The two cross-bars 11, 12 effectively hold the slats 10 within the

sides of the crate and the cross-bar 11, in connection with the cross-bar 12, locks the slats 10 against endwise movement and, at the same time, prevents the sides and ends of the crate from folding together and hence holds the latter rigidly in its open position.

Having thus described our said invention, what we claim as new and desire to secure by Letters Patent of the United States, is

The herein described folding crate comprising sides and ends formed by parallel slats having their ends over lapping and formed with vertically alining apertures, pivot rods passed through said alining apertures in the over lapping ends of the slats and having their projecting ends bent inwardly in a longitudinal direction to provide runners for the crate, and removable top and bottom sections each consisting of longitudinal resilient slats united adjacent to one of their ends by the short cross bar 12 and adjacent to their opposite ends by the long cross bar 11 and at a point between their centers and the short cross bar 12 by the long cross bar 13, whereby the portions of the resilient slats of said top and bottom sections between said cross bars 12, 13 may be sprung inwardly to permit said sections to be moved longitudinally and tilted, substantially as described and for the purpose set forth.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

CHARLES W. CRONBAUGH.
EDWARD L. CRONBAUGH.
MILO D. CRONBAUGH.

Witnesses:
JOHN W. MORROW,
BURR B. HARDING.