

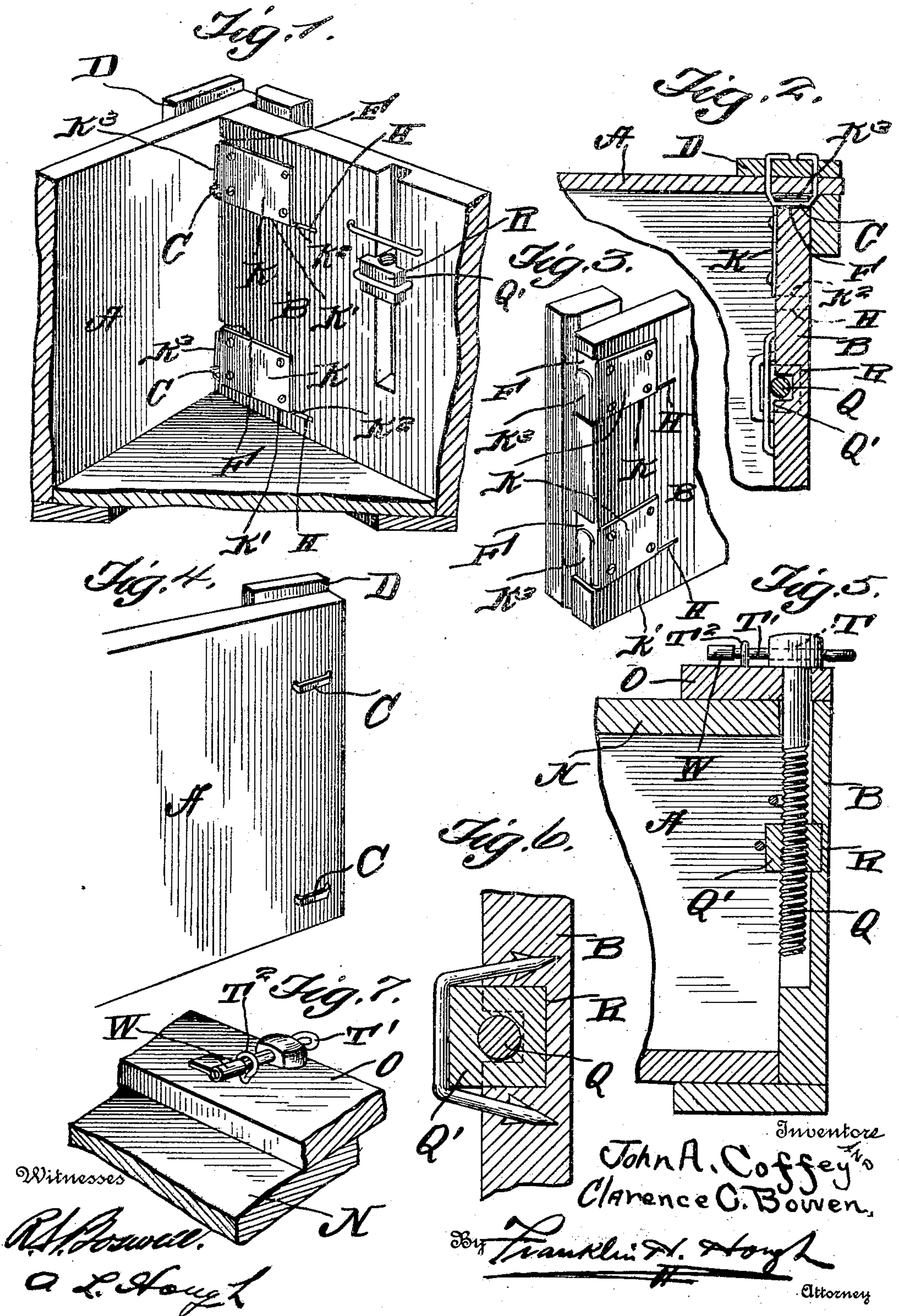
J. A. COFFEY & C. C. BOWEN.

COLLAPSIBLE CRATE, BOX, &c.

APPLICATION FILED DEC. 28, 1909.

962,745.

Patented June 28, 1910.





# UNITED STATES PATENT OFFICE.

JOHN A. COFFEY AND CLARENCE C. BOWEN, OF CADILLAC, MICHIGAN.

COLLAPSIBLE CRATE, BOX, &c.

962,745.

Specification of Letters Patent.

Patented June 28, 1910.

Application filed December 28, 1909. Serial No. 535,231.

*To all whom it may concern:*

Be it known that we, JOHN A. COFFEY and CLARENCE C. BOWEN, citizens of the United States, residing at Cadillac, in the county of Wexford and State of Michigan, have invented certain new and useful Improvements in Collapsible Crates, Boxes, &c.; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in collapsible boxes, crates, etc., and comprises a simple and efficient device for reinforcing corners.

The invention comprises various details of construction which will be hereinafter fully described and then specifically defined in the appended claims.

We illustrate our invention in the accompanying drawings, in which:

Figure 1 is a perspective view of one corner of the box embodying features of our invention. Fig. 2 is a sectional view through one of the corners showing the means for holding two of the sides together. Fig. 3 is a detail perspective view of one of the fastening plates. Fig. 4 is a detail view of one of the loops engaged by the hook plate shown in Fig. 3. Fig. 5 is a detail sectional view through the cover and box, and Figs. 6 and 7 are detail views.

Reference now being had to the details of drawings by letter, A and B designate two of the adjacent walls of a crate or box, the former of which is provided with loops C, which project from the inner face of the side A, and D designates a cleat which is fastened to the outer face of the side A and has one edge flush with the end of said side. The side B has recesses F formed in one end thereof and each recess has a slit H leading therefrom into the side B, said slit being continuous with one of the side walls of said recess.

K, K, designate two plates, each of which is bent at an angle at K' forming a wing K<sup>2</sup>, which is seated in one of said slits, said wing K<sup>2</sup> having its end K<sup>3</sup> bent to form a hook which is positioned within one of said recesses and having its outer face flush with

the end of the side B, a space intervening between the free end of said hook and one side wall of the recess in which it is disposed. In the drawings we have shown two of said plates spaced apart and mounted similarly and each adapted to engage one of said loops.

N designates a cover having cleats O overhanging the marginal edges of said cover, and when the cover is adjusted in place one of the cleats is adapted to engage the inner faces of the two cleats at the meeting ends of the side walls of the box or crate, with the ends of said cleats and the outer faces of the cleats O being shown.

In putting the sides of the box together, the loops are inserted in the spaces intermediate the ends of the hooks upon the plates, and the adjacent side walls of the recesses, and then the two sides moved in opposite directions causing the hooks to engage said loops, thus holding the side walls at right angles to each other, after which the cover is countersunk between the inner faces of the side with the cleats resting upon the edges of the latter, thus further securely reinforcing and holding the crate or box against any heavy strain which might come upon the same.

In Fig. 6 of the drawings, we have shown a sectional view illustrating means for holding the parts together after being interlocked, consisting of a screw Q which is mounted in a nut Q' which latter is seated in a recess R as is also the screw and the head of the screw is apertured as at T for the reception of a wire T' which also passes through an eyelet T<sup>2</sup> and the ends of the wire held by means of a seal W.

What we claim to be new is:—

1. A collapsible box or crate, comprising side walls, loops fastened to the inner face of one wall, the meeting end of the adjacent wall being recessed, with a slit formed in the bottom of each recess, a plate fastened to the wall of the box having a recess, having an angled wing seated in said slit and a portion of said wing bent to form a hook positioned within the recess and adapted to engage said loop, as set forth.

2. A collapsible box or crate, comprising side walls, loops fastened to the inner face of one wall, the meeting end of the adjacent wall being recessed, with a slit formed in the bottom of each recess, a plate fastened to the wall of the box having a recess, hav-



ing an angled wing seated in said slit and a portion of said wing bent to form a hook positioned within the recess and adapted to engage said loop, and a cover countersunken  
5 between the inner surfaces of the side walls of the box and cleats upon the cover resting upon the edges of said wall, as set forth.

3. A collapsible box or crate, comprising side walls, loops fastened to the inner face of  
10 one wall, the meeting end of the adjacent wall being recessed, with a slit formed in the bottom of each recess, a plate fastened to the inner face of the wall with the recess in the end, said plate being bent at right angles to  
15 form a wing which is seated within said slit, one end of said wing being bent at right an-

gles forming a hook, and seated in said recess with its outer face flush with the end of the wall, said hook adapted to engage said loop, and a cover countersunken between the  
20 inner faces of the side walls of the box, and having overhanging cleats adapted to rest upon the marginal edges of the side walls, as set forth.

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

JOHN A. COFFEY.

CLARENCE C. BOWEN.

Witnesses:

IDA JARNAC,

KATE COLLINS.