No. 756,338. PATENTED APR. 5, 1904.

H. A. DOTEN.

KNOCKDOWN BOX.

APPLICATION FILED MAR. 24, 1903.

NO MODEL.

Fig. 1.

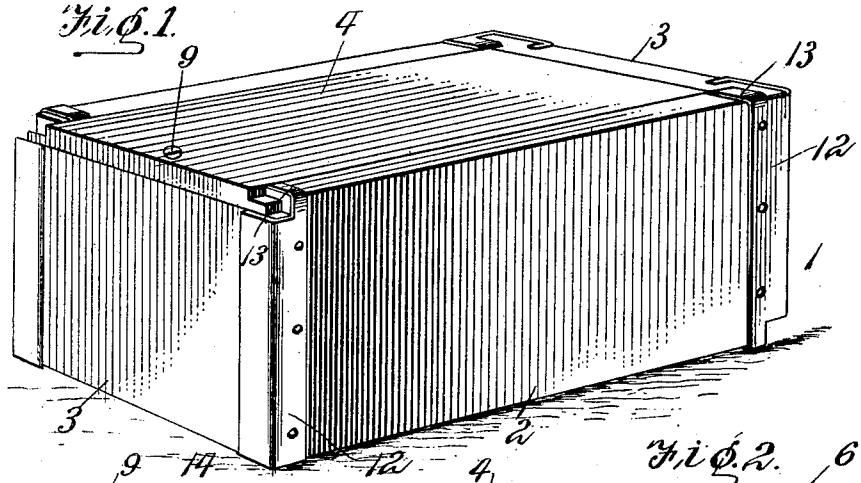


Fig. 2.

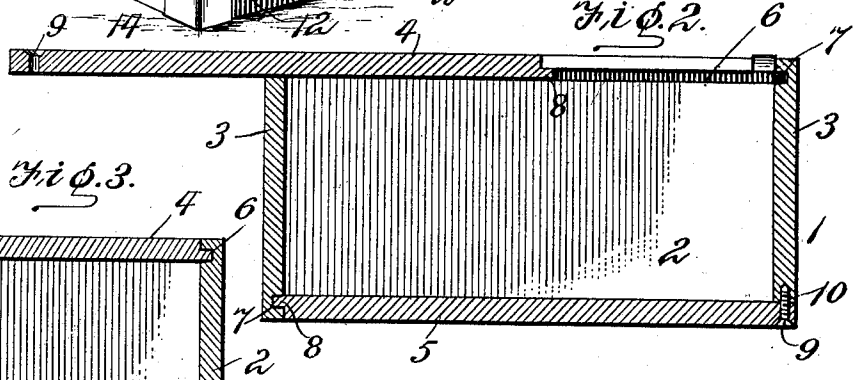


Fig. 3.

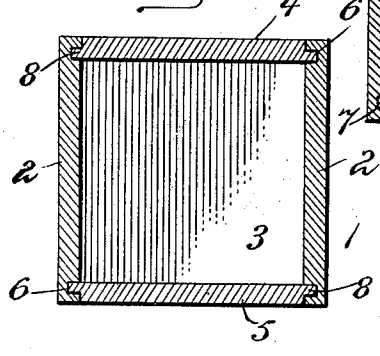


Fig. 5.

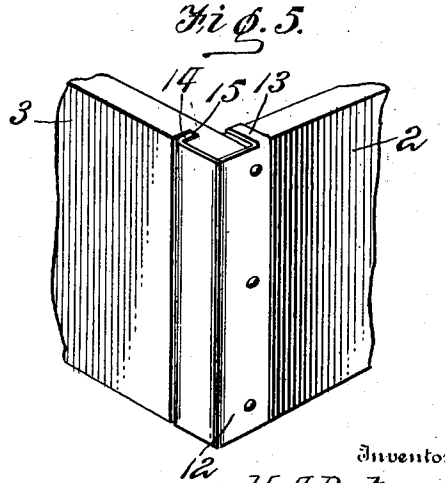
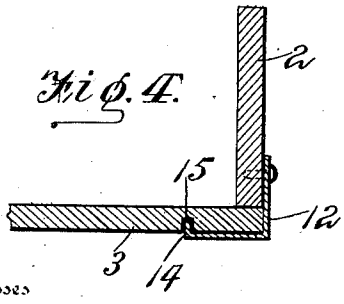


Fig. 4.



Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 756,338. Patented April 5, 1904.

UNITED STATES PATENT OFFICE.

HENRY A. DOTEN, OF BURLINGTON, VERMONT, ASSIGNOR OF ONE-HALF TO CLINTON A. HANKS, OF BRISTOL, VERMONT.

KNOCKDOWN BOX.

SPECIFICATION forming part of Letters Patent No. 756,338, dated April 5, 1904.

Application filed March 24, 1903. Serial No. 149,341. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. DOTEN, a citizen of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Knockdown Boxes; and I do 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.

This invention relates to knockdown boxes; and the object of the invention is to provide a box of this character which may be quickly taken apart and closely packed for transportation or storage and which may be readily put together again to form a strong durable box, the parts of which when assembled cannot accidentally be slipped out of place.

A further object is to provide metal corner-pieces for such a box which will serve a double function of locking the sides and ends of the box together and also as braces and protective coverings for the corners of the box.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of the box complete. Fig. 2 is a longitudinal vertical section through the box with the cover partly removed. Fig. 3 is a vertical cross-section view of the same. Fig. 4 is a horizontal section through one corner of the box, and Fig. 5 is a detail perspective view of one of the corner-pieces.

In the drawings, 1 denotes the box, formed of the side pieces 2 and end pieces 3 and top and bottom pieces 4 and 5. The side pieces 2 are similar in construction and are provided on their inner sides near the upper and lower edges with longitudinally-disposed grooves 6. The end pieces 3 are also similar in construction and are of slightly less width than the side pieces 2 and are each provided on their inner sides and near one end with a groove 7. These grooves 7 are at the opposite edges of the ends when the parts are assembled—that is, at one end of the box the groove is at the top edge of the end piece, while at the opposite end of the box the groove is at the bottom edge of the end pieces. Likewise at one end of the box the upper edge of one end piece is flush or on a level with the top edges on the side pieces, while at the opposite end of the box the lower edge of the end piece is flush on a level with the bottom edges of the side pieces. This arrangement of the end pieces brings the grooves 7 of the same in line and on a level with the grooves 6 at the upper and lower edges of the side pieces. The top and bottom pieces 4 and 5 are similar in construction and interchangeadle, each being provided along their sides and across one end with rabbeted edges 8, which are adapted to slide in the grooves 6 and 7 of the sides and end pieces when the box is assembled.

The plain or square ends of the top and bottom may be provided with screw-holes 9, through which screws 10 may be passed into the upper and lower edges of the end pieces to hold said top and bottom pieces in place.

12 denotes metal corner-pieces right angular in shape and adapted to engage the corners of the box. That part of the corner-piece which engages the side piece of the box is fixedly secured thereto by nails, screws, or other suitable means. The upper portion of the corner-pieces are cut away to form tongues 13, which are adapted to be bent over and downwardly to embrace the upper edge of side pieces, thereby bracing and strengthening said edges, as well as more firmly holding the corner-pieces in place. The other side of the corner-piece, or that part which engages the end pieces of the box, is provided with an inwardly-turned edge or flange 14, which is adapted to be inserted in a narrow groove 15, formed in the outer faces of the end pieces, this connection securely holding the end pieces in place when the box is assembled, but which will permit them to be slipped out when the top and bottom pieces have been removed and it is desired to take the box down.

To assemble the box, the end pieces are slipped into engagement with the corner-pieces fixed to the ends of the sides of the box and

the top and bottom pieces are slipped in place in the grooves at the top and bottom of the side and end pieces and screws passed through the holes therein, when a strong well-braced light box will be had, which may be quickly knocked down by a reversal of the operation just described.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A knockdown box of the class described, comprising a top, a bottom and side walls, having coengaging tongues and grooves, whereby the top and bottom are adapted to be moved endwise to engage them with or disengage them from the sides; end pieces, one forming a stop for the top and the other forming a stop for the bottom, said end pieces having grooves 15, and right-angular metallic corner-pieces, each secured to one of the side walls and provided with an inturned flange 14 engaging the groove of the contiguous end piece, the end pieces when disengaged by the top and bottom, being slidable between the ends of the side walls and the corner-pieces, and being engaged at their ends and on their outer sides by the corner-pieces, substantially as described.

2. A knockdown box of the class described, comprising a top, a bottom and side walls, having coengaging tongues and grooves, whereby the top and bottom are adapted to be moved endwise to engage them with or disengage them from the sides; end pieces, one forming a stop for the top and the other forming a stop for the bottom, said end pieces having grooves 15, and right-angular metallic corner-pieces, each secured to one of the side walls and provided with an inturned flange 14 engaging the groove of the contiguous end piece, the end pieces when disengaged by the top and bottom being slidable between the ends of the side walls and the corner-piece, and being engaged at their ends and on their outer sides by the corner-pieces, the latter being provided each with a tongue 13, bent upon the upper edge of one of the side walls and clearing the contiguous end piece, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY A. DOTEN.

Witnesses:
C. F. CLEVELAND,
B. E. BALDWIN.