

(No Model.)

2 Sheets—Sheet 1.

H. J. RUMRILLE.

KNOCKDOWN ADJUSTABLE PACKING CASE.

No. 512,521.

Patented Jan. 9, 1894.

Fig. 1.

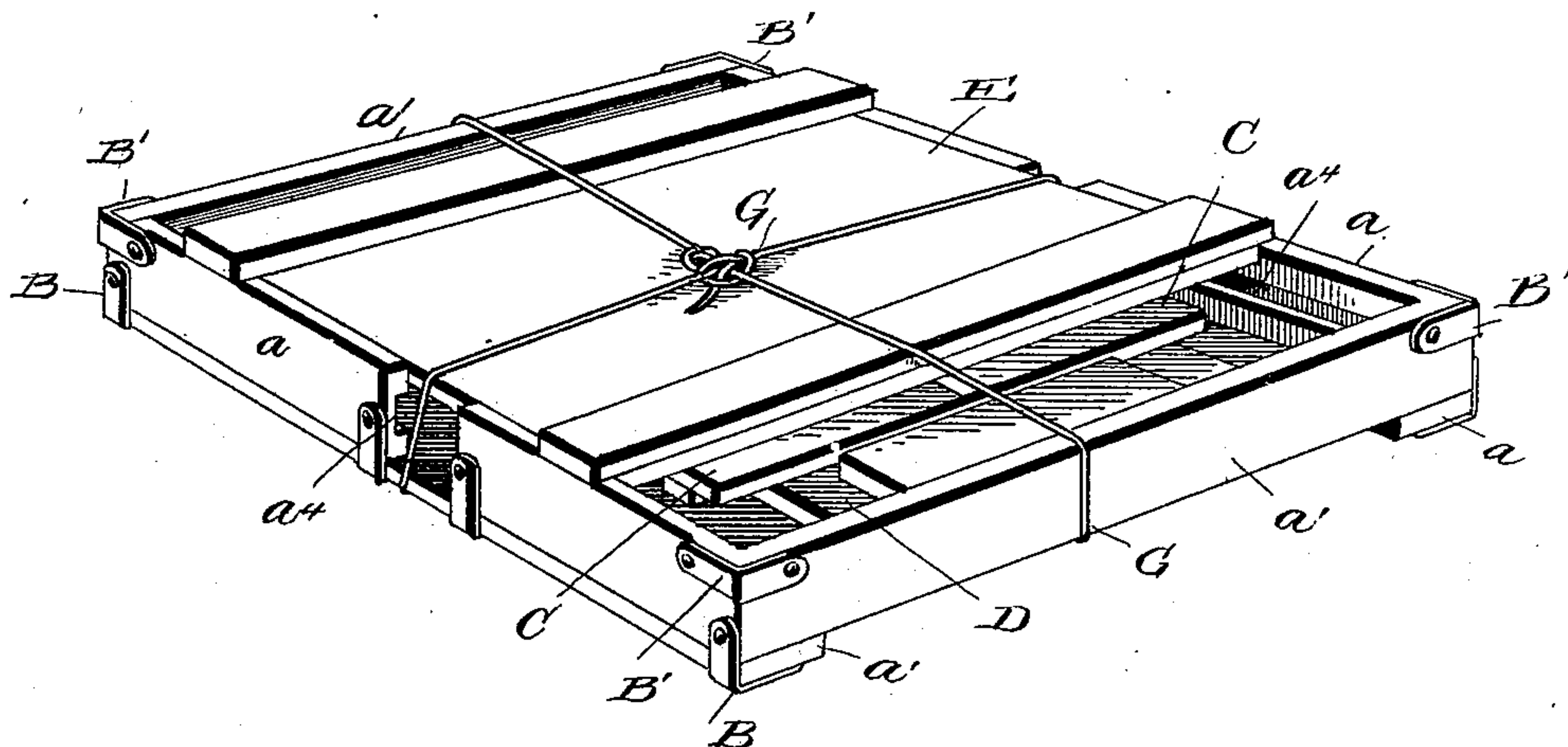
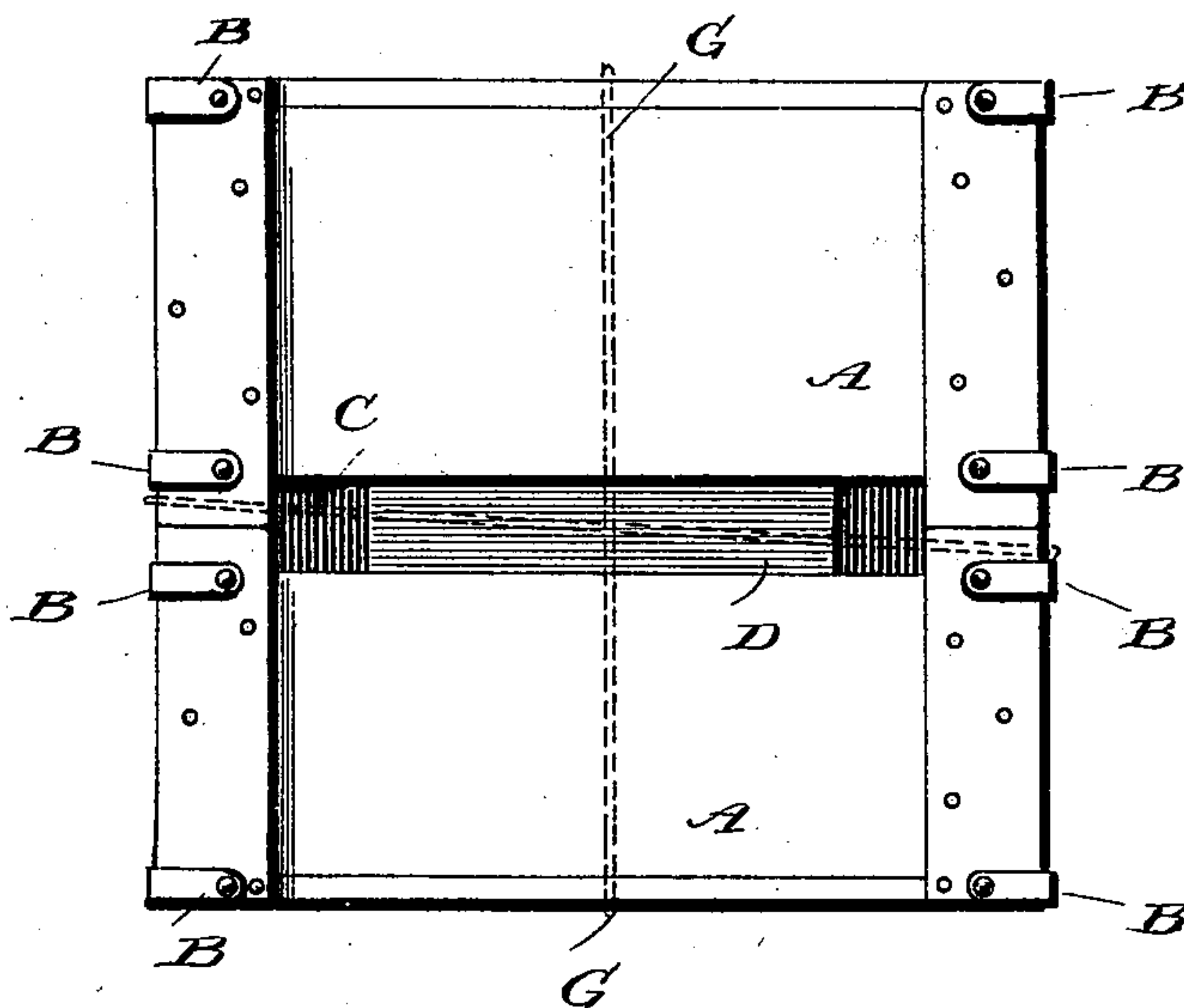


Fig. 2.



Witnesses:

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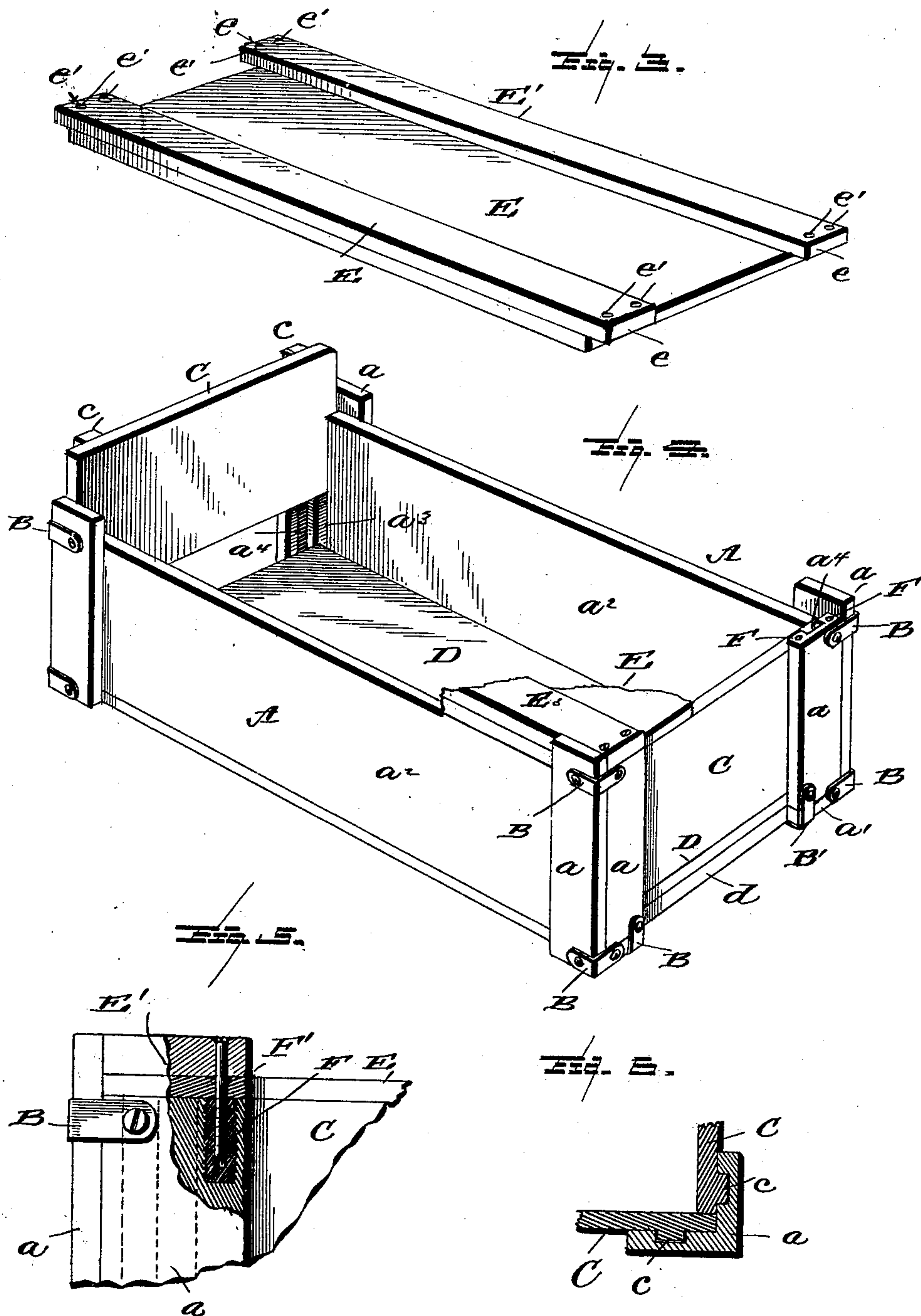
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UNITED STATES PATENT OFFICE.

HENRY J. RUMRILLE, OF HADDONFIELD, NEW JERSEY, ASSIGNOR OF ONE-HALF TO ED. H. WILLIAMS, OF PHILADELPHIA, PENNSYLVANIA.

KNOCKDOWN ADJUSTABLE PACKING-CASE.

SPECIFICATION forming part of Letters Patent No. 512,521, dated January 9, 1894.

Application filed March 2, 1893. Serial No. 464,443. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. RUMRILLE, a citizen of the United States, residing at Haddonfield, in the county of Camden, State of New Jersey, have invented certain new and useful Improvements in Knockdown Adjustable Packing-Cases, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to certain new and useful improvements in knock-down adjustable packing cases, and it has for its objects among others to provide a simple and cheap improved device of this character which
15 can be readily set up or knocked down and packed into small compass for shipment. The sides are spaced by the bottom which is detachable, and the ends slide in ways formed between the corner pieces of the sides and
20 have cleats which slide in ways in the corner pieces. The top is removable and is secured in place preferably by screws which engage metal sockets which prevent splitting of the corner pieces and to permit of the use
25 of the screws in the same place for an indefinite period. When packed for shipment empty the parts occupy but little space and can all be secured together by a cord tied around them. I am enabled to utilize small
30 pieces of wood and thus can reduce the cost to a minimum.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by
35 the appended claims.

The invention is capable of embodiment in a variety of forms, but in the present instance I have chosen to show what I at present consider as the preferable form.

40 The invention in its preferred form is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

45 Figure 1 is a perspective view of my improved adjustable packing case knocked down and the parts packed and tied up for return shipment. Fig. 2 is a bottom plan of Fig. 1.

Fig. 3 is a perspective view of the cover removed. Fig. 4 is a perspective view of the

case set up, with the cover removed and one of the end pieces shown partially in place, a portion of the cover at one corner being shown, the remainder being broken away. Fig. 5 is a detail partly in elevation and partly
55 in section showing one of the screws and its socket. Fig. 6 is a sectional detail of a modified form of corner construction.

Like letters of reference indicate like parts throughout the several views in which they
60 appear.

Referring now to the details of the drawings by letter, A designates the sides of the case, and as both sides are alike a description of one will suffice for both. It consists
65 of the corner pieces a which may be composed of two pieces arranged at right angles to each other as seen best in Fig. 4 or of a single piece with its sides at right angles to each other as seen in Fig. 6. To the bottom edges
70 of the corner pieces there is secured the longitudinal strip a' and between the outside portions of the corner pieces is secured the vertical longitudinal strip a^2 which is substantially the width of the desired height
75 of the case. This longitudinal piece a^2 terminates short of the end portions of the corner pieces as seen best in Fig. 4 to form the grooves or ways a^3 for the reception of the end pieces. The end pieces of the corner pieces are provided
80 with vertical grooves a^4 for the reception of cleats or projections on the end pieces. If the corner pieces are each formed of two parts as seen in Fig. 4 they are bound together in addition to being nailed or screwed
85 by the metallic bands or clips B near the upper and lower ends as shown in said Fig. 4 and additional clamps or bands B' serve to better secure the longitudinal strip a' to the end pieces of the corner pieces. The side pieces
90 of the corner pieces extend above the end pieces thereof as seen best in Fig. 4 for a purpose which will soon appear.

C are the end pieces each of a height corresponding with the height of the case and of
95 a length to engage the grooves a^3 between the corner pieces and the ends of the strips a^2 as seen in Fig. 4. Upon their outer faces near the ends they are provided with the vertical cleats or projections c which are adapted to
100

engage the vertical grooves a^4 in the end pieces of the corner pieces as seen in Figs. 4 and 6.

D is the bottom. It is constructed to fit within the body of the case consisting of the sides and end pieces. It is provided upon its under side with the transverse strips or cleats d which are of such a length as to fit between the inner or adjacent faces or edges of the strips a' and thus serve to space the side pieces and keep them the proper distance apart.

E is the top of the case. It has upon its upper face along each edge with the outer edges flush the strips E' which extend beyond the ends of the top the thickness of the end pieces of the corner pieces as seen at e in Fig. 3. These ends of the strips E' are provided with screw holes e' as shown and the upper ends of the end pieces of the corner pieces are provided with the metal screw-threaded socket pieces F which are screwed thereinto as seen in Fig. 5 and into which the screws F' are designed to be engaged.

In setting up the case the sides are first set up and then the bottom placed in position, its end transverse strips serving to space the sides and prevent collapsing thereof; the ends are then slid in from the top with their cleats or projecting ribs c entering the grooves a^4 and their ends engaging the grooves a^3 as seen in Fig. 4; the forcing in of the end pieces draws the parts tightly together and holds them there without any fastening means. When the case has been filled the top is placed in position, its end pieces e resting upon the end pieces of the corner pieces as shown and then the screws F' are placed in position and screwed into the sockets therefor and the edges of the top and its side strips are held between the extended ends of the side pieces of the corner pieces.

When it is desired to pack the case, as for return shipment, the crate is knocked down by a reversal of the steps employed to set it up, and the two sides laid down as shown in Fig. 1; the bottom is then placed within the shallow receptacle thus formed, and the end pieces laid at right angles to the bottom as seen in Fig. 1 and the top is then placed in position with its strips E' with their extended

ends resting upon the edges of the strips a as shown and then the whole bound together as by a cord or analogous means G . As thus packed and bound the parts are held against movement one upon the other and within the thickness of the width of the corner pieces as seen in Fig. 1.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

1. A shipping case having a detachable bottom with transverse cleats and corner pieces with longitudinal strips at their bottom edges, as set forth.

2. The combination with the sides and interlocking ends, of the bottom with transverse cleats, the corner pieces with the longitudinal strips at their bottom edges and a detachable top with longitudinal strips, as set forth.

3. The combination with the sides having corner pieces with vertical grooves, of the detachable end pieces with vertical cleats to engage said grooves, the detachable bottom with transverse cleats and adapted to space the sides, as set forth.

4. The combination with the sides having corner pieces with vertical grooves, and grooves between their vertical pieces and the end pieces of the corner pieces, of the end pieces having vertical cleats fitted to the grooves in the corner pieces and the ends engaging the grooves in the sides, as set forth.

5. The combination with the sides and their corner pieces having metal sockets, of the detachable ends, the detachable bottom, and the detachable top and screws for engaging said sockets to hold the top in place, as set forth.

6. The combination with the sides with angular corner pieces with vertical grooves, of the binding clamps for the corner pieces, the end pieces with vertical cleats, the detachable bottom with cross cleats, and the detachable top with longitudinal strips, all as set forth.

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

HENRY J. RUMRILLE.

Witnesses:

JAMES M. CASSADY,
HENRY P. BRIGGS.