

(No Model.)

E. HOYT, Jr.
BOOK CASE.

No. 433,345.

Patented July 29, 1890.

Fig. 1.

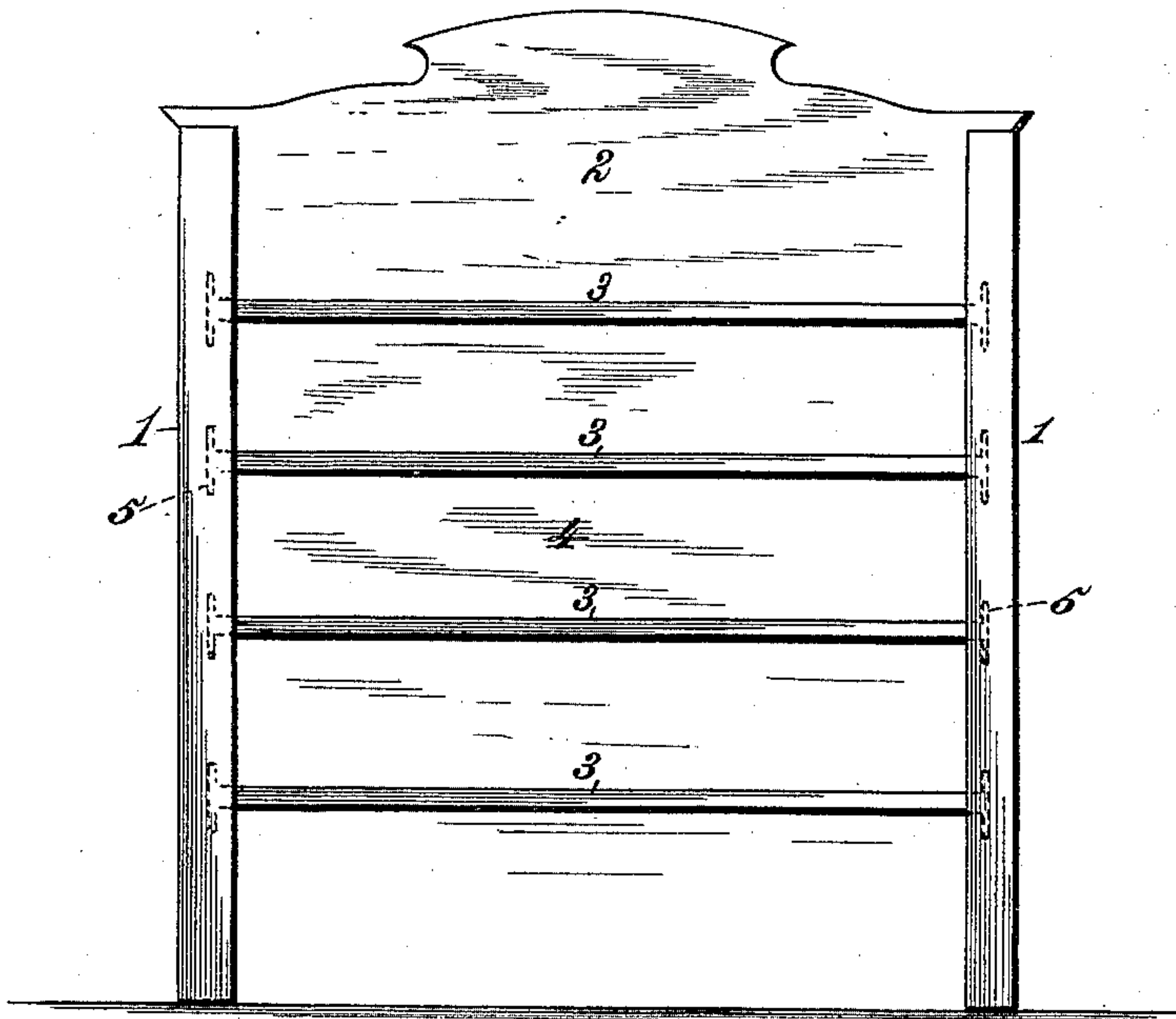


Fig. 2.

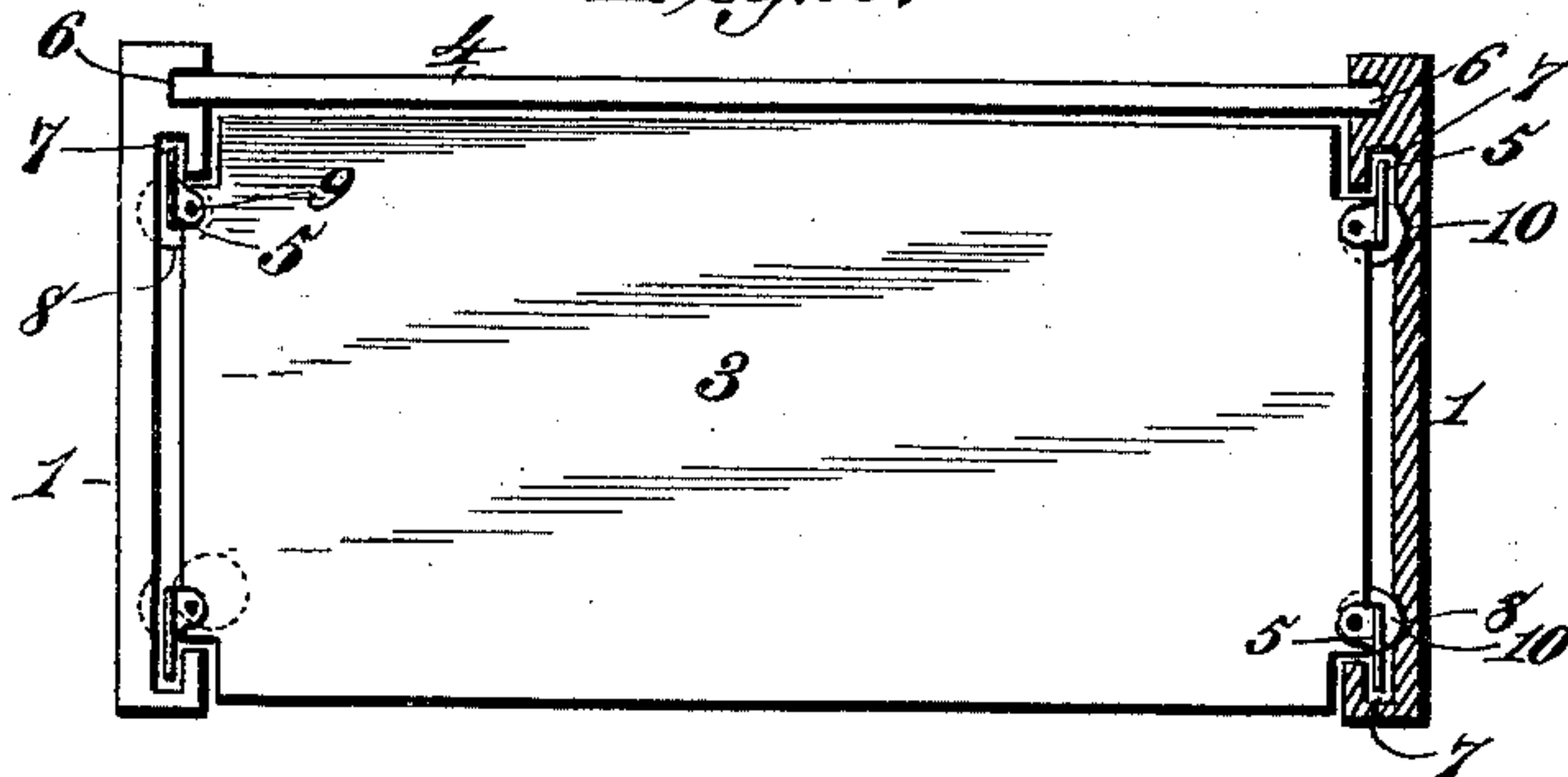


Fig. 3.

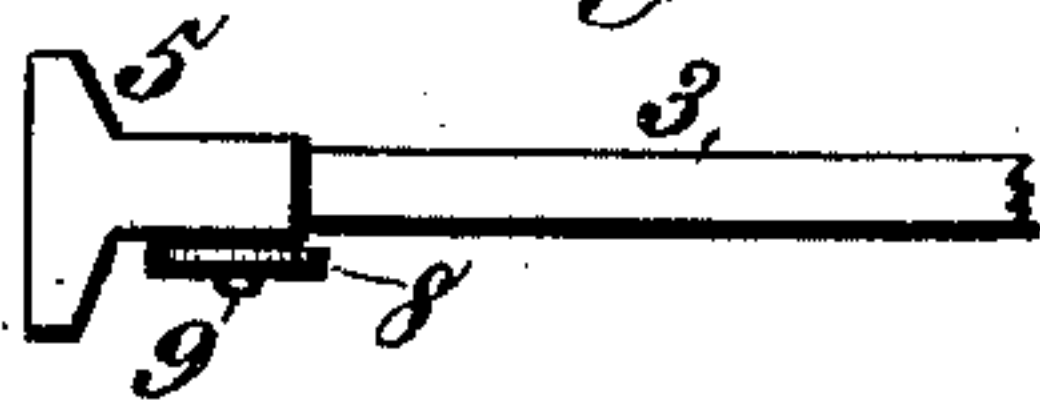


Fig. 4.

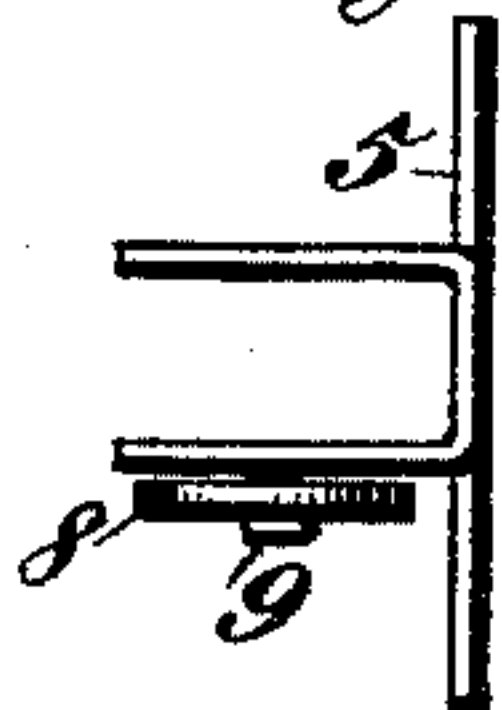


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWIN HOYT, JR., OF GRAND RAPIDS, MICHIGAN.

BOOK-CASE.

SPECIFICATION forming part of Letters Patent No. 433,345, dated July 29, 1890.

Application filed February 5, 1890. Serial No. 339,265. (No model.)

To all whom it may concern:

Be it known that I, EDWIN HOYT, Jr., a citizen of the United States, residing at the city of Grand Rapids, in the county of Kent and State of Michigan, have invented a certain new and useful Book-Case, of which the following is a specification.

The nature of my invention relates to certain new and useful improvements in shelving for book cases and other analogous articles of furniture.

The invention consists in the arrangement of the shelves in combination with the side pieces of the book-case so that the shelves will bind the entire frame-work together without projecting beyond said side frames or pieces; also in combination with the side pieces and shelves of a backing consisting of one or more pieces adapted to slide in grooves provided for their reception in the side pieces; also in the method of attaching the top to the body of the book-case, constructed as hereinafter described.

The objects of my invention are, first, to construct a book-case or analogous piece of furniture so that it may be readily taken to pieces and shipped in knockdown; second, to bind the side pieces of the book-case together by means of the adjustable shelves fitted to the inner sides of the side pieces and having a vertical motion with reference to said sides, thereby enabling the operator to adjust the shelves to any required position within the side pieces and at the same time to have such shelves bind the side pieces together; third, to cheapen the construction of a portable book-case. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a front view of a book-case constructed in accordance with my invention. Fig. 2 shows a plan view of the body of the book-case with the top removed for the purpose of illustrating the grooves in the side pieces designed to receive the binding-pieces and the ends of the shelves, and also the grooves for the reception of the backing. Fig. 3 shows an end view of a shelf with one of the binding-pieces attached thereto. Fig. 4 shows an edge view of a binding-strip and the device for adjusting and holding the shelf in the required position. Fig. 5 is a

view showing a modification of the side pieces.

Similar figures refer to similar parts throughout the several views.

In the form of my invention illustrated in the drawings, 1 1 represent the side pieces of the book-case, which are provided with longitudinal grooves, (shown by 7 7, &c.,) preferably extending from the upper end of the side pieces to a point as low or lower than the lowest shelf.

6 6 represent grooves for the reception of backing-strips 4.

3 represents the shelves.

5 5 represent a metallic binding piece or strip, which, in the illustration shown in Fig. 3, is attached to the shelf at or near its corner, leaving the plain board extending beyond, so as to fit into one of the grooves 7. This binding-strip 5 may be attached to the shelf by means of pins or screws or in any suitable manner, and the binding piece or strip at each corner of the shelf has a sliding hooked engagement with a side piece 1 by reason of such binding-piece extending into one of the grooves 7, which run vertically near the vertical edges of the side pieces.

I provide one binding-strip for each corner of the shelf, so that the shelf is supported at its four corners, and in connection with each binding-piece I provide a shelf-sustaining device, which engages a side piece 1, and is composed, as here shown, of an eccentric (shown in Figs. 3 and 4) by 8 turning upon a pivot 9. These eccentrics are adapted to engage with small cavities cut in the inner face of the side pieces, two of which are shown in Fig. 2, by 10 10. These grooves are preferably on the arc of a circle and need not exceed an eighth of an inch in depth for the reason that the shelves bind the side pieces together and a small eccentric or stop 8 securely holds the shelf in position, although it projects but a small distance into the side pieces.

In the drawings I have shown the grooves 7 7, &c., cut in the wood or body of the side pieces. These, however, may be made in any suitable manner, and the form of the binding-pieces may be varied, it being sufficient if they have projections which will extend into the grooves 7 a sufficient distance to retain the shelf in position and to bind the side pieces. Instead of making the binding-pieces of metal and attaching to the shelves,

the shelf may have a projection adapted to fit into a suitable groove in the side pieces.

2 represents a top piece, which is preferably constructed so as to fit into grooves 6 6, thereby securing the same to the top of the case proper. Other attachments may be provided if found desirable.

By the construction described the top can be removed, the back 4 can be removed, the shelves taken from the grooves, and the whole packed into a narrow compass.

I deem my invention peculiarly applicable to portable book-cases and book-shelving; but it may be applied to any article of furniture for which it may be adapted.

The form of the grooves and binding-pieces and the shelving may be varied without departing from the spirit of my invention.

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

1. A knockdown book-case or analogous article of furniture, consisting of the side pieces having near each edge a vertical groove, the shelves having at each corner an attached binding-piece and all of the binding-pieces in sliding hooked engagement with the side pieces at the grooves, said shelves adapted to slide vertically while in such hooked engagement, shelf-sustaining devices engaging the side pieces for supporting the shelves at any desired elevation, and a case-back sliding vertically in engagement with the side pieces in rear of the shelves, substantially as described.

2. In a book-case or analogous piece of furniture, side pieces provided with grooves for

the reception of the shelves and also with grooves for the adjustment of the shelves, shelves provided with binding-pieces adapted to move in the grooves on the inner side of said upright pieces, and an eccentric or button adapted to engage with the horizontal grooves in the side pieces for the purpose of adjusting the shelves at any required position, substantially as and for the purpose described.

3. A book-case or analogous article of furniture, consisting of the side pieces having vertically-adjustable shelves in engagement therewith and said side pieces each having a vertical groove in rear of the shelves, a back panel sliding vertically in said grooves behind the shelves, and the cap-piece engaged with and sliding vertically in the grooves above the back panel, substantially as described.

4. In a book-case or analogous piece of furniture and in combination with the side-supporting pieces thereof, a shelf provided with four binding-pieces, one at each corner, adapted to engage with grooves in the inner surface of said upright pieces, and a lock-button or eccentric with each binding-piece adapted to engage with suitable grooves or indentures in the upright side pieces for the purpose of holding the shelf in any required position, substantially as described.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

EDWIN HOYT, JR. [L. S.]

Witnesses:

EDWARD TAGGART,

HARRY P. VAN WAGNER.