

No. 620,456.

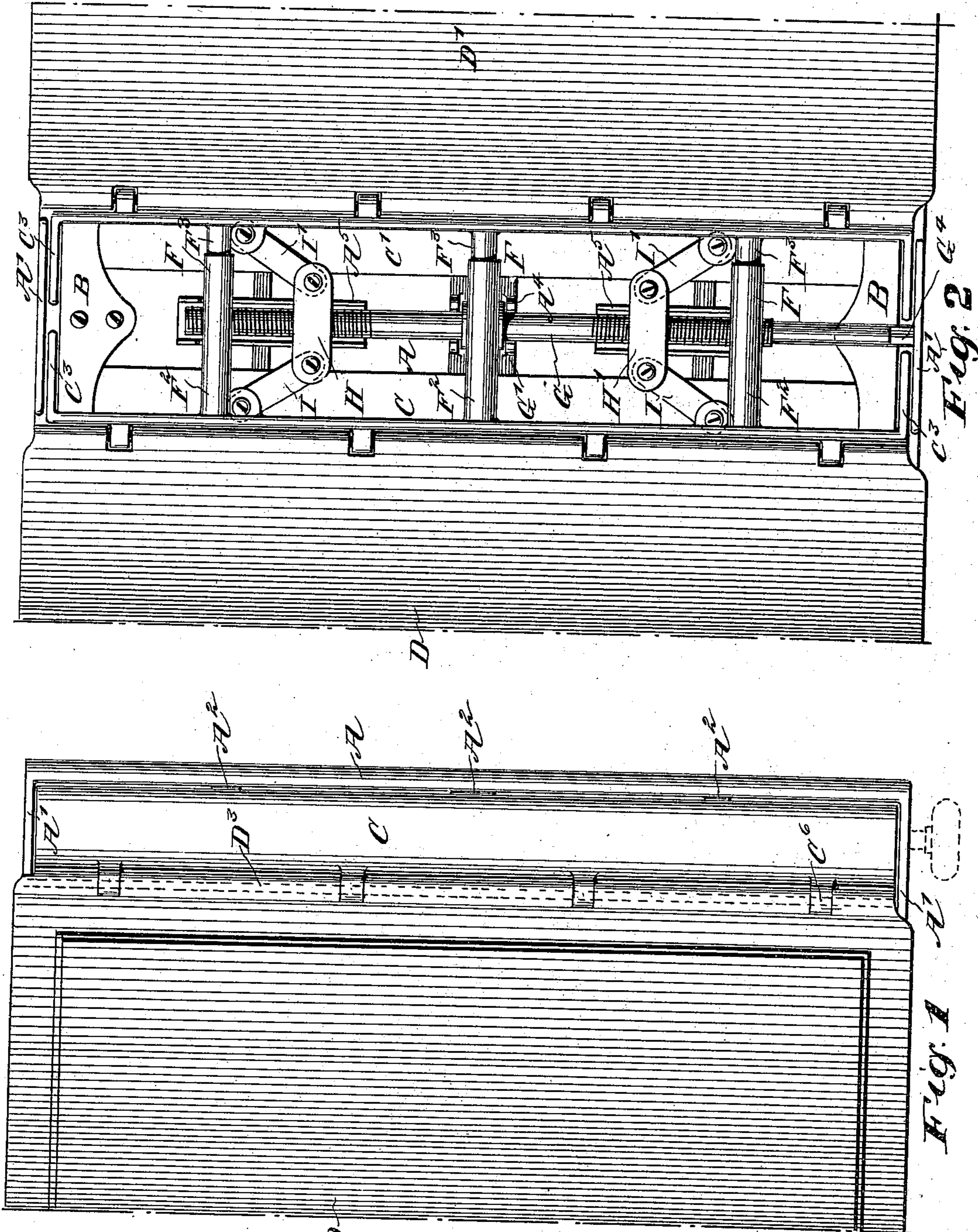
Patented Feb. 28, 1899.

H. P. JONES.  
BINDER FRAME.

(Application filed July 1, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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INVENTOR

*H. P. Jones*

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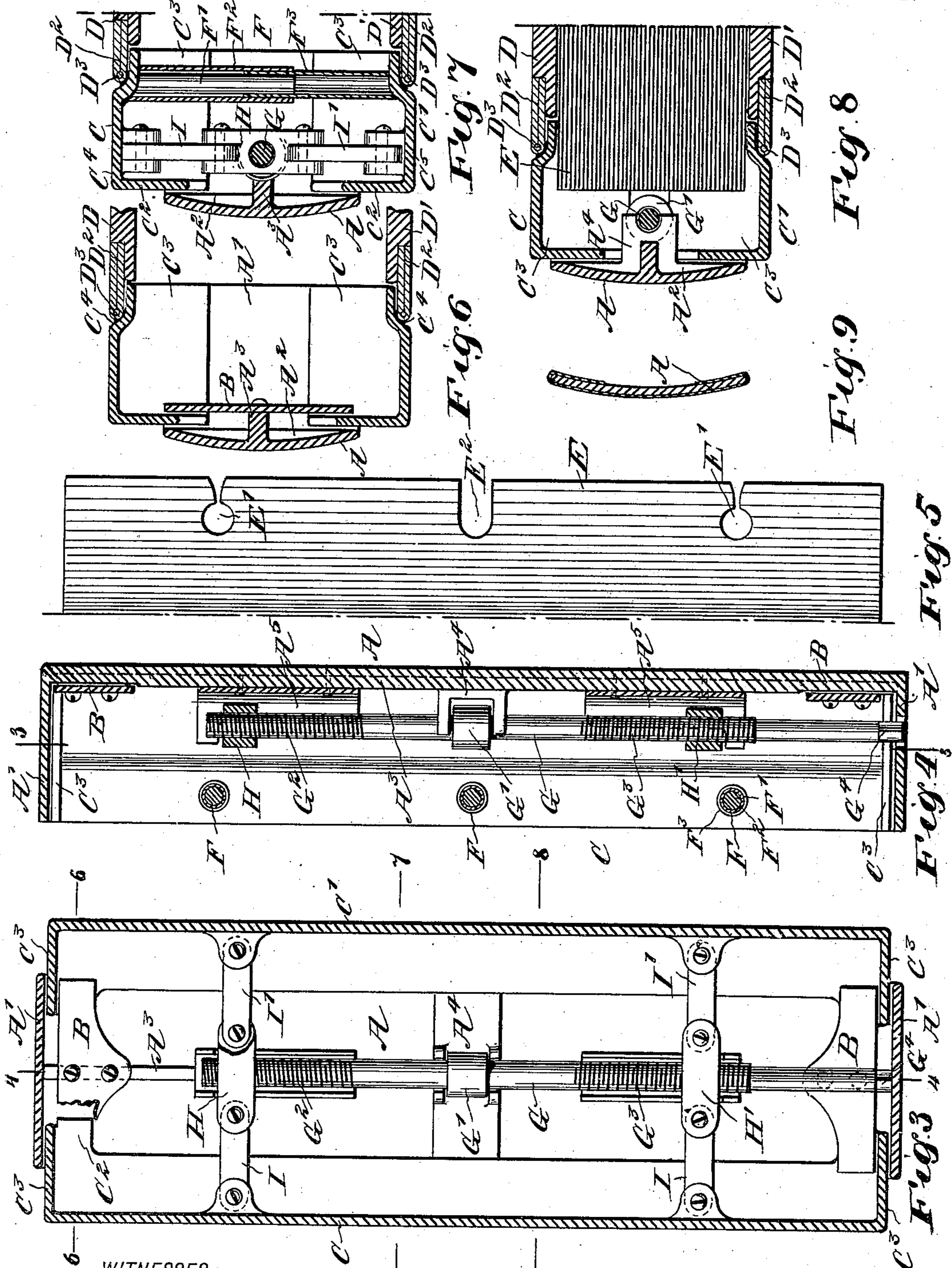
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# UNITED STATES PATENT OFFICE.

HARVEY PEIRCE JONES, OF CHICAGO, ILLINOIS.

## BINDER-FRAME.

SPECIFICATION forming part of Letters Patent No. 620,456, dated February 28, 1899.

Application filed July 1, 1898. Serial No. 684,918. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY PEIRCE JONES, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Binder-Frame, of which the following is a full, clear, and exact description.

The invention relates to binder-frames such as shown and described in the application for Letters Patent of the United States, Serial No. 668,166, filed by me on January 27, 1898.

The object of the present invention is to provide a new and improved binder-frame which is simple and durable in construction and readily adjusted to permit of conveniently and quickly binding the leaves in such a manner that they are readily and separately movable and interchangeable.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement. Fig. 2 is an inside view of the same with the covers opened. Fig. 3 is a sectional elevation of the same on the line 3 3 in Fig. 4. Fig. 4 is a sectional plan view of the same on the line 4 4 in Fig. 3. Fig. 5 is a plan view of one of the leaves. Fig. 6 is a sectional side elevation of the improvement on the line 6 6 in Fig. 3. Fig. 7 is a similar view of the same on the line 7 7 in Fig. 3. Fig. 8 is a like view of the same on the line 8 8 in Fig. 3, and Fig. 9 is a sectional side elevation of the back covered with leather.

The improved binder-frame is preferably made of metal and is provided with a back A, formed at its top and bottom with flanges A', the back being preferably concave, as plainly indicated in Figs. 6, 7, and 8. A series of cross-bars A<sup>2</sup> extend across the back and form integral parts thereof to form guideways, as hereinafter more fully described. A rib A<sup>3</sup> extends longitudinally of the back, at the inside thereof, intersecting the cross-bars A<sup>2</sup> and terminating at or near the end flanges A', and on this cross-bar, near said

flanges, are secured transverse plates B, forming, with the cross-bars A<sup>2</sup>, the guideways for the cover-plates C C', preferably made L-shaped in cross-section and having extensions C<sup>2</sup> at the ends for passing under the plates B, so as to hold the cover-plates in the proper position. The cover-plates are also provided at the top and bottom with flanges C<sup>3</sup>, fitting snugly on the inside of the flange A', so that when the cover-plates are moved toward or from each other they at all times form, with the back A, an open casing, as will be readily understood by reference to the drawings.

On the cover-plates are hinged the covers D D', between which extend the leaves E, held on pins F, made in sections fitted to slide upon each other, the sections being secured to the cover-plates C C', as hereinafter more fully described.

In order to move the cover-plates C C' toward or from each other to close or open the binder-frame, I provide the back A, at or near its middle, with a bearing A<sup>4</sup>, engaged by a collar G', held on a screw-rod G, formed on opposite sides of the collar with right and left hand screw-threads G<sup>2</sup> G<sup>3</sup>, as is plainly shown in Figs. 2, 3, and 4. The screw-threads G<sup>2</sup> G<sup>3</sup> are engaged by nuts H H', respectively, each connected by links I I' with lugs C<sup>4</sup> C<sup>5</sup>, respectively formed on the inside of the corresponding cover-plates C C'. The nuts H H' are fitted to slide longitudinally in guideways A<sup>5</sup>, formed or secured on the rib A<sup>3</sup>, so that when the operator applies a key or like instrument on the square end G<sup>4</sup> of the screw-rod and turns said key and screw-rod then the nuts H H' travel simultaneously toward or from each other and cause the links I I' to draw the cover-plates C C' toward or from each other, according to the direction in which the screw-rod is turned.

Each of the pins F is provided with a stud F', secured to the inside of the cover-plate C, and said stud is surrounded by a concentric sleeve F<sup>2</sup>, into which is fitted a sleeve F<sup>3</sup>, secured on the other cover-plate C' and fitted to slide on the stud F'. Thus when the cover-plates C C' are moved toward or from each other, as above described, the sleeve F<sup>3</sup> slides on the stud F' within the sleeve F<sup>2</sup>.

In order to fasten a leaf E on the several pins F, I provide each leaf with recesses E' E<sup>2</sup>, of which the recesses E' have a narrow entrance, as plainly indicated in Fig. 5, to permit of conveniently inserting a leaf on the pins.

Each cover D is preferably made of pasteboard or like suitable material, with a hinged leaf D<sup>2</sup>, made of sheet metal and secured to the pasteboard, near the inner edge thereof, the said hinged leaf being preferably formed of a piece of sheet metal doubled over to form an eye for the reception of the pintle D<sup>3</sup>, adapted to pass through apertured lugs or eyes C<sup>6</sup>, formed on the outer faces of the cover-plates C C'. Thus by removing the pintle D<sup>3</sup> the cover can be readily separated from the corresponding cover-plate and a new one put in place, if desired.

From the foregoing it will be seen that the device is very simple and durable in construction, is not liable to get out of order, the cover-plates and cover being readily removed toward or from each other to close or open the binder-frame, as occasion may require.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A binder-frame, comprising a back, cover-plates fitted to slide thereon, a screw-rod mounted to turn on said back, and having right and left hand screw-threads, nuts engaging said screw-threads and guided lengthwise on said back, and links connecting the nuts with said cover-plates, to move the latter simultaneously toward or from each other on turning said screw-rod, substantially as shown and described.

2. A binder-frame, comprising a back having top and bottom flanges, guideways transverse of the back, and L-shaped cover-plates fitted to slide on said guideways, and having end flanges fitted close to said back flanges, to form at all times a casing with the back whether the cover-plates are moved inward

or outward, substantially as shown and described.

3. A binder-frame, comprising a back having top and bottom flanges, guideways transverse of the back, L-shaped cover-plates fitted to slide on said guideways, and having end flanges fitted close to said back flanges, to form at all times a casing with the back whether the cover-plates are moved inward or outward, and means for simultaneously moving said cover-plates toward or from each other, as set forth.

4. A binder-frame, comprising a back having top and bottom flanges, guideways transverse of the back, L-shaped cover-plates fitted to slide on said guideways, and having end flanges fitted close to said back flanges, to form at all times a casing with the back, whether the cover-plates are moved inward or outward, means for simultaneously moving said cover-plates toward or from each other, said means comprising a bearing on said back, a screw-rod mounted to turn on said bearing and having right and left hand threads, nuts screwing on said flanges, guideways for the nuts to slide on and held on said back, and links connecting the nuts with said cover-plates, substantially as shown and described.

5. In a binder-frame, the combination of a back, cover-plates mounted to slide thereon, a threaded rod mounted to turn on the back, a nut working on the threaded rod, and links connecting the nut with the cover-plate.

6. In a binder-frame, the combination of a back, members mounted to slide transversely thereon, a threaded rod mounted on the binder-frame, a nut working on the threaded rod, and links connecting the nut with said members.

HARVEY PEIRCE JONES.

Witnesses:

W. S. ELMER,  
W. B. LUCAS.