

No. 736,342.

PATENTED AUG. 18, 1903.

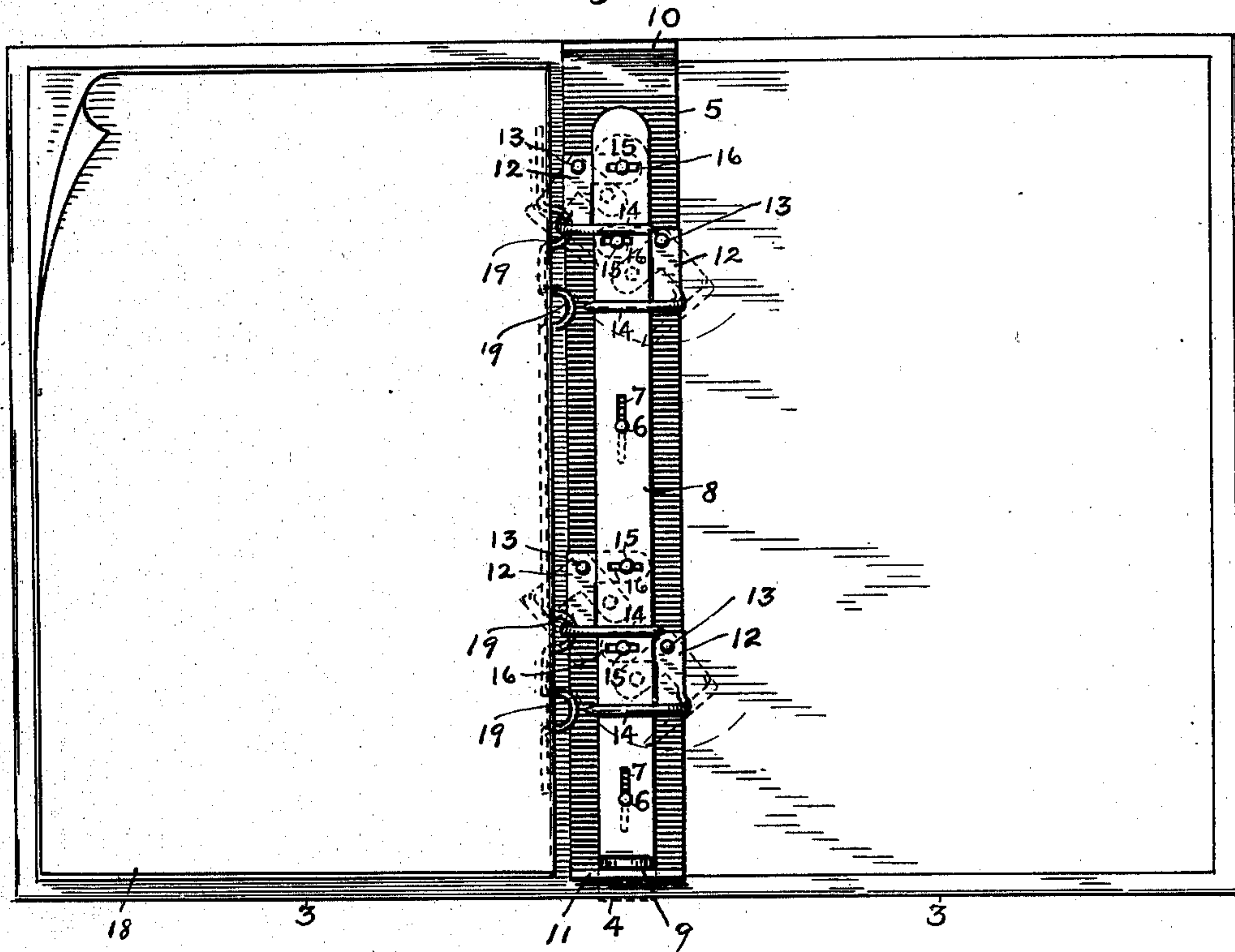
E. T. A. AKASS.
LOOSE LEAF BINDER.

APPLICATION FILED DEC. 16, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses,
J. Mahlen Unger.
John A. Sherwood

Inventor,
Edward T. A. Akass,
By Joseph A. Minturn
Attorney.

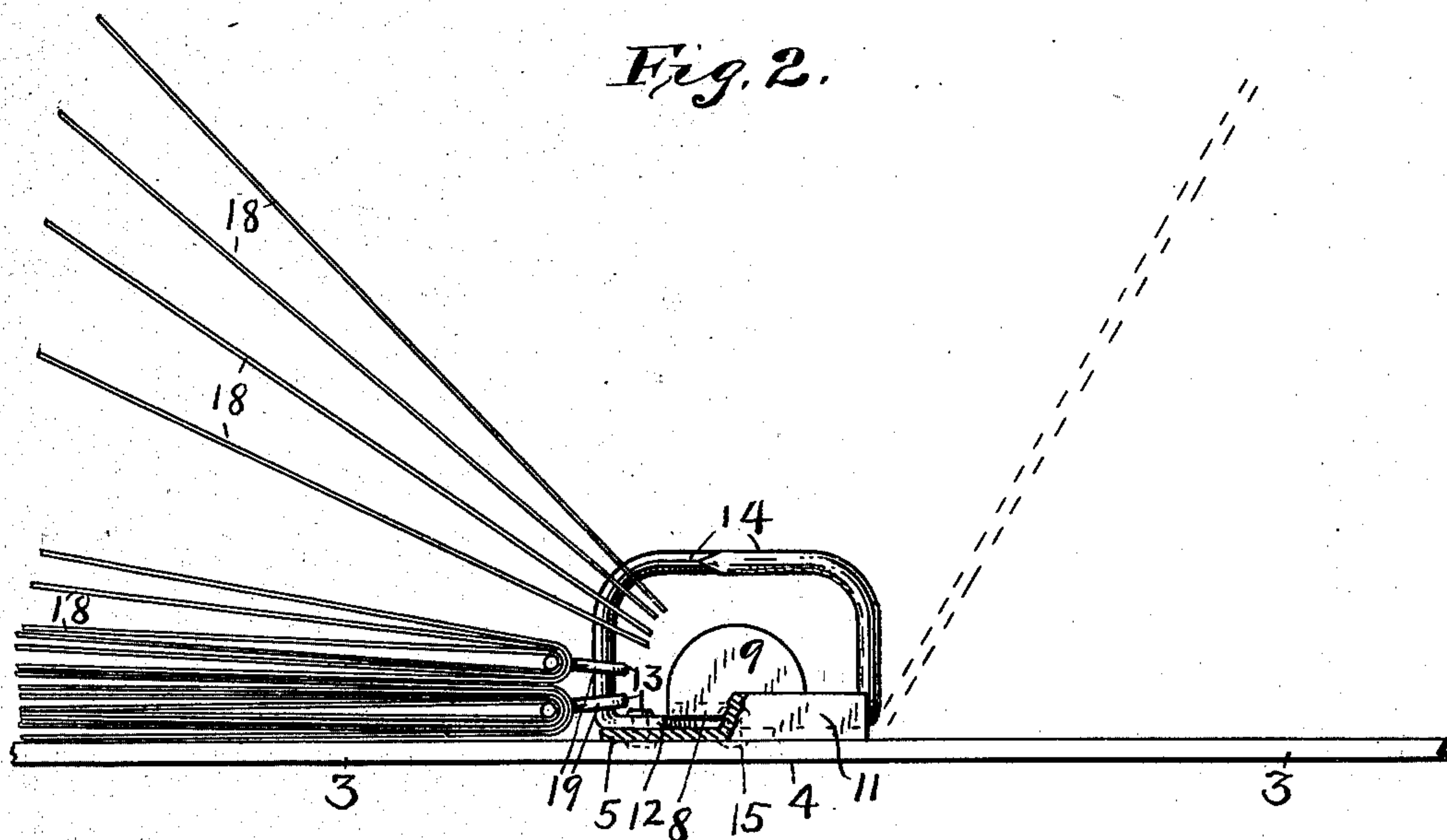
No. 736,342.

PATENTED AUG. 18, 1903.

E. T. A. AKASS.
LOOSE LEAF BINDER.
APPLICATION FILED DEC. 18, 1902.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses,
Shahler Muge.
John O. Herwood

Inventor,
Edward T. A. Akass,
By Joseph A. Minturn
Attorney.

UNITED STATES PATENT OFFICE.

EDWARD T. A. AKASS, OF CHICAGO, ILLINOIS.

LOOSE-LEAF BINDER.

SPECIFICATION forming part of Letters Patent No. 736,342, dated August 18, 1903.

Application filed December 16, 1902. Serial No. 135,378. (No model.)

To all whom it may concern:

Be it known that I, EDWARD T. A. AKASS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

This invention relates to improvements in binding-files for removably securing all manner of loose leaves and groups of leaves—such as single and double sheets, circulars, pamphlets, and the like—and is adapted to multitudinous uses.

The object of the invention is to provide a simple and durable file in which leaves may be added or removed when the file is full or empty without bending the covers back beyond a flat open position.

The object also is to provide a file that will open out flat for convenience in writing on the pages bound therein and to expose the full area of the page to view.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of an open file embodying my improvements, and Fig. 2 an end view of same on a larger scale with the flange at the end of the bottom reinforcing-plate broken away in part and sectioned.

Like characters of reference indicate like parts throughout the two views.

3 3 are the two covers, which are connected by the back 4. The covers may be stiff or flexible. The back will be reinforced and stiffened with a plate 5, preferably of metal, which is rigidly secured to the back in any suitable manner. The plate 5 has the studs 6 6, which pass through the longitudinal slots 7 in the bar 8, laid upon said plate 5. The studs have heads which prevent the removal of the bar, but allow it to be longitudinally reciprocated within the limits of the slots. The end of the bar at the bottom of the file is bent up at 9 to afford a hold to the fingers in moving it, and the plate 5 at the top of the file is bent out to form the hold 10. The lower end of the plate is bent out to form the projection 11, which serves as a stop to prevent the downward movement of the bar except when the end of the bar is raised over the flange 11 by springing it out.

12 represents angle or elbow levers, (here shown as four in number,) which are pivotally secured by pivots 13 at their angles to the plate 5. These are arranged two on each side of the bar 8. The outer ends of the angle-levers have hooks 14. The inner arms of the angle-levers pass between the plate 5 and bar 8 and are pivotally secured by pivots 15 to said bar. The latter has the transverse slots 16 to receive the pivots 15. In the closed position of the hooks, which I will call the "normal" position, the outer arms of the angle-levers will be parallel with the bar 8 and each hook will project from the outer edge of each respective plate, first at right angles to the plate and then across and parallel to the bar 8, and will thus lie in a plane at right angles to the longitudinal dimensions of said bar. The last bend will preferably be in an easy curve. The hooks of the opposite levers will overlap each other, as shown, and these hooks will impale the eyelets of the leaves to be bound in the file. These leaves are shown at 18, and I have here shown leaves which are provided with eyelets formed by suitably bending wire rods, the body of the wires being placed in the fold between two or more leaves and the bends or elbows to form the eyelets being passed out through slots in the back of the folds. These eyelets are shown at 19 in the drawings. The leaves may, however, have the perforated eyelets of well-known construction or any other suitable holders for the engagement of the hooks.

In operation when the bar 8 is drawn out to the position shown by the dotted lines the levers and hooks will swing out, as shown, leaving an unobstructed space between the ends of the opposite hooks, which affords free opportunity to insert or remove the leaves of the file.

The invention is so simple that it will be readily understood, in connection with the drawings, without further description.

Having thus fully described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. In a binding-file, a pair of covers, a back connecting the covers, a plate reinforcing the back, a plurality of binding-hooks having elbow-levers which are pivotally secured at their elbows to the plate in two series, one

- on each side of the plate, whereby the hooks in operative or closed positions will stand transversely of the back, and a single bar for simultaneously moving both series of levers whereby the free ends of their hooks will describe arcs of circles around axes at right angles to the back passing through the pivots to permit the removal or insertion of leaves in the file.
2. In a binding-file, a pair of covers, a back connecting the covers, a plate reinforcing the back, a plurality of elbow-levers pivotally secured to the plate in two opposite series, binding-hooks approximately at right angles to the outer arms of said levers and carried thereby, said hooks in operative or closed position standing transversely of the back, and a single bar connecting the inner ends of the levers for swinging the levers on their pivots whereby the free ends of the hooks will describe arcs of circles around axes at right angles to the back passing through their respective pivots to permit the removal or insertion of leaves.
3. In a binding-file, a pair of covers, a back connecting the two covers, a plate reinforcing the back, a longitudinally-reciprocating bar on said plate, a plurality of bent levers pivotally secured at their bends to the plate in two opposite series one arm of each of said bent levers being pivotally secured to said bar, binding-hooks springing approximately at right angles from the end of the other arm of said lever, said hooks in operative or closed position standing transversely of the back and adapted to swing out in the arc of a circle by the reciprocation of the bar.
- In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 2d day of December, A. D. 1902.
- EDWARD T. A. AKASS. [L. S.]
- Witnesses:
S. MAHLON UNGER,
RALPH PAXTON.