

No. 736,343.

PATENTED AUG. 18, 1903.

E. T. A. AKASS.

BINDING FILE.

APPLICATION FILED DEC. 16, 1902.

NO MODEL.

Fig. 1.

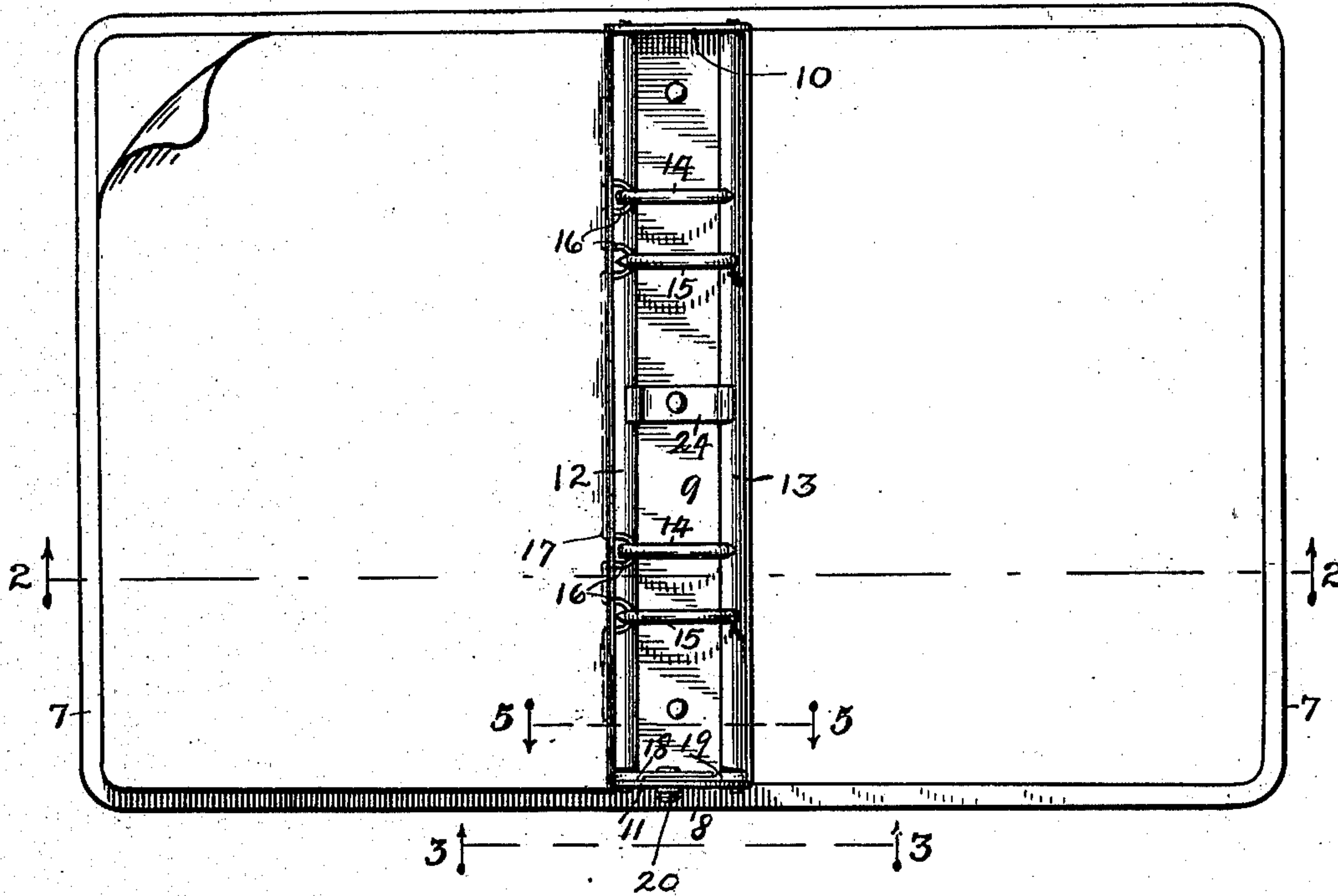


Fig. 2.

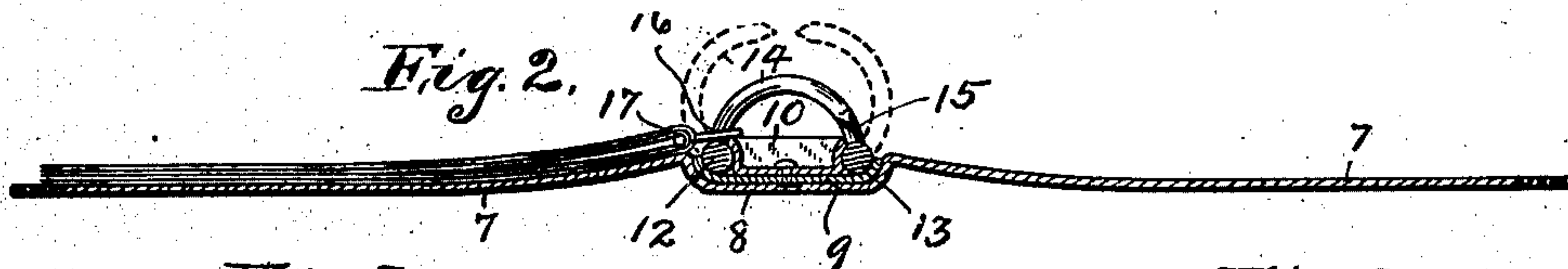


Fig. 3.

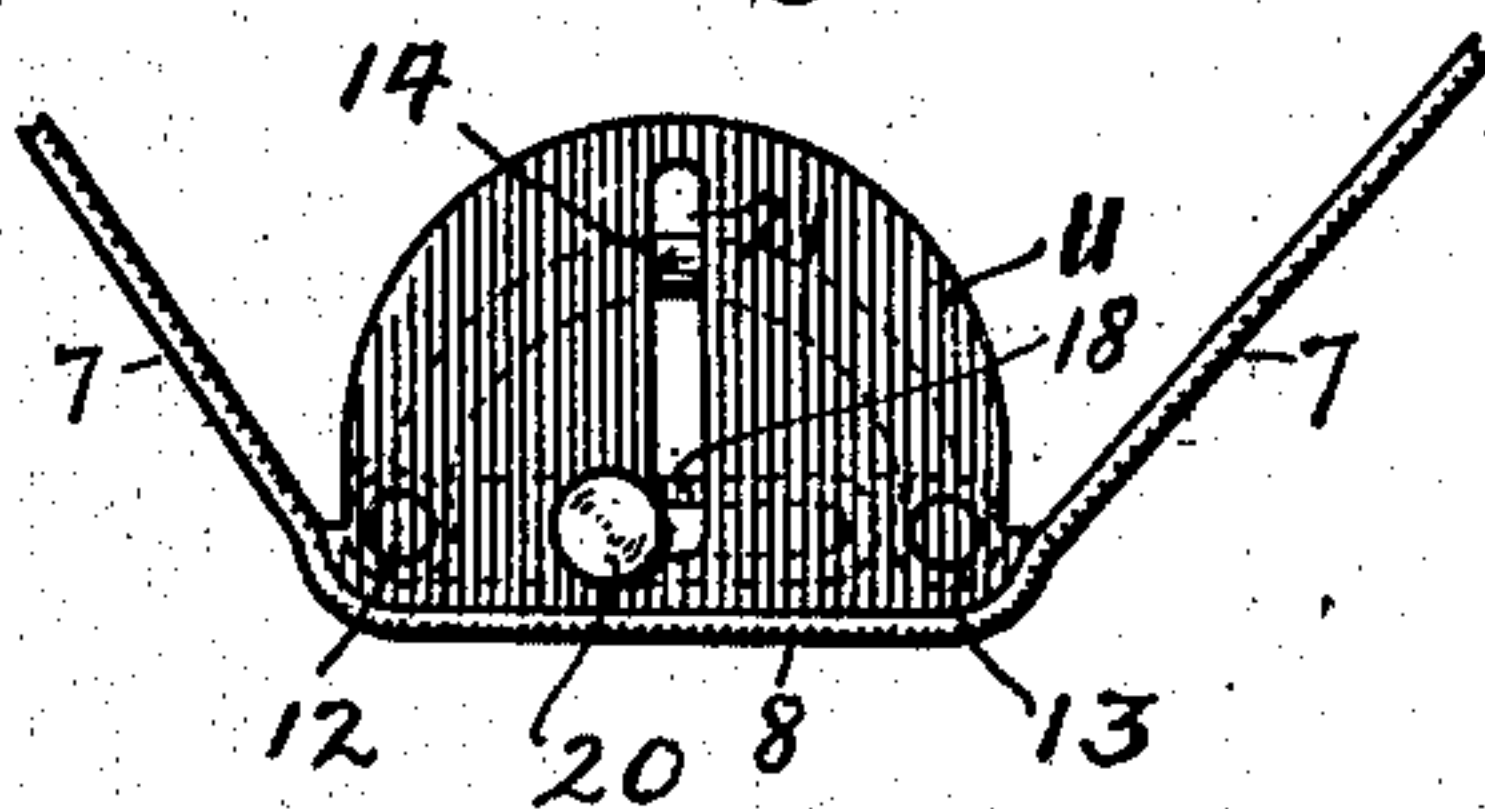


Fig. 4.

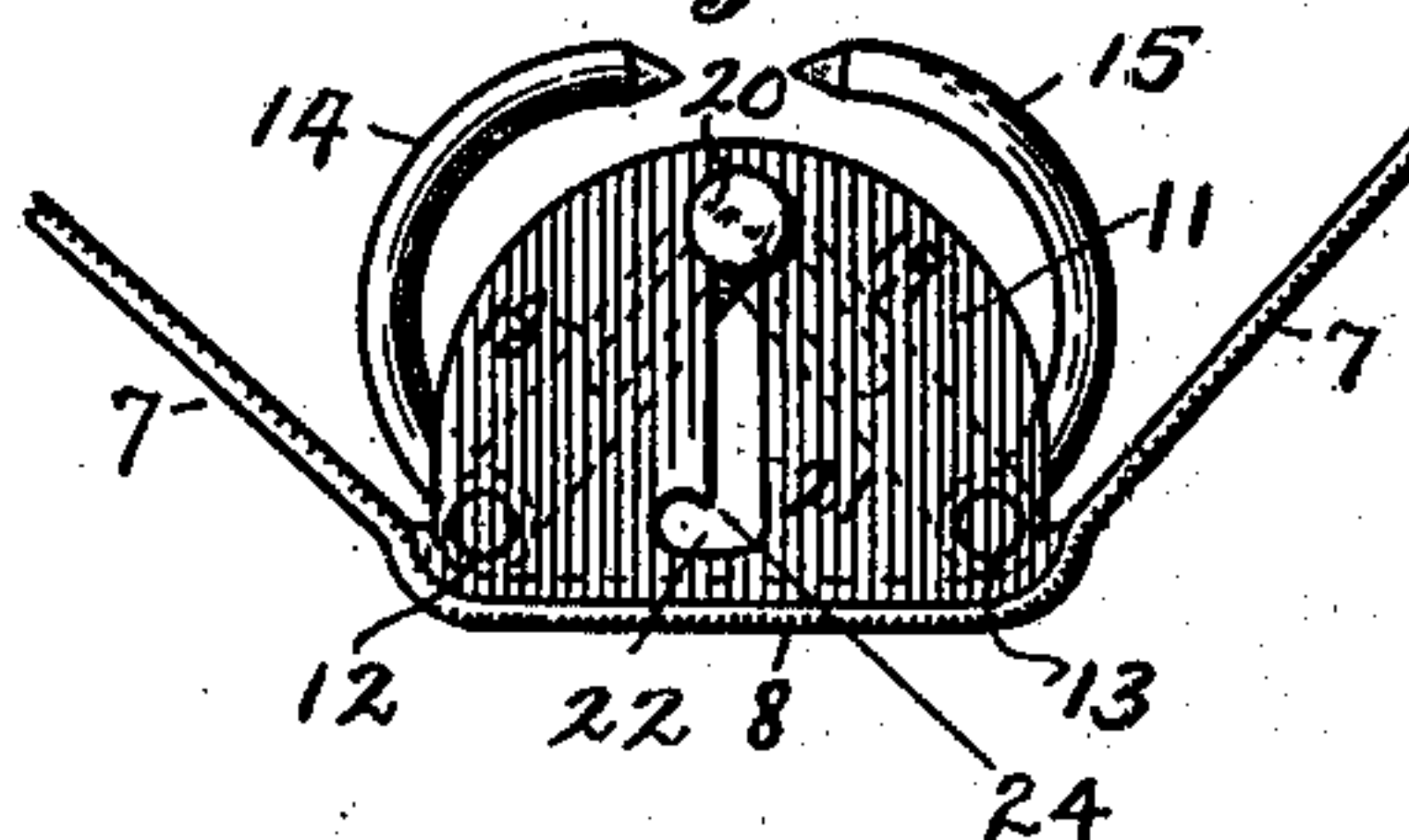


Fig. 5.

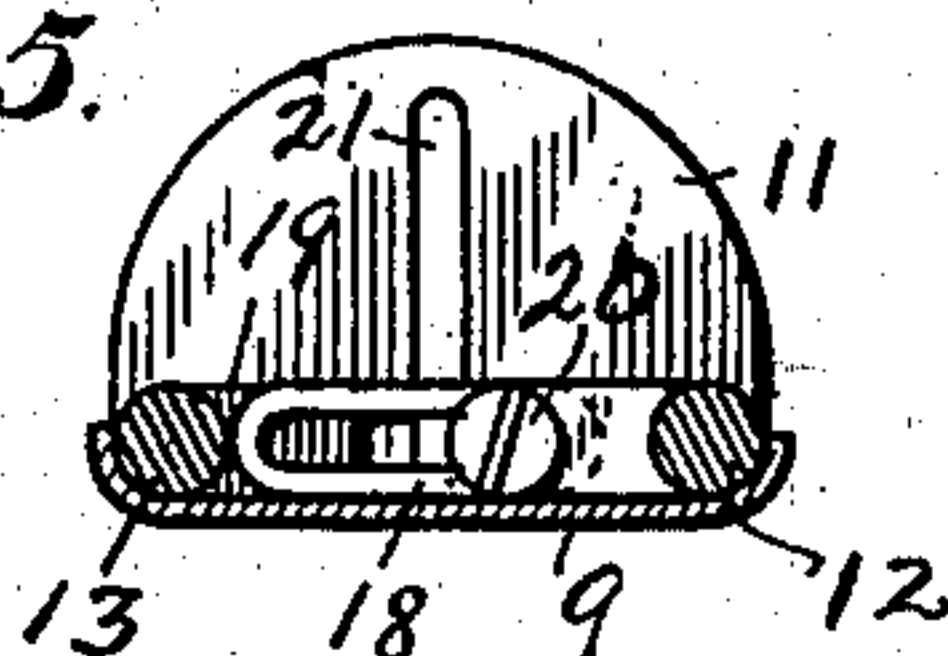
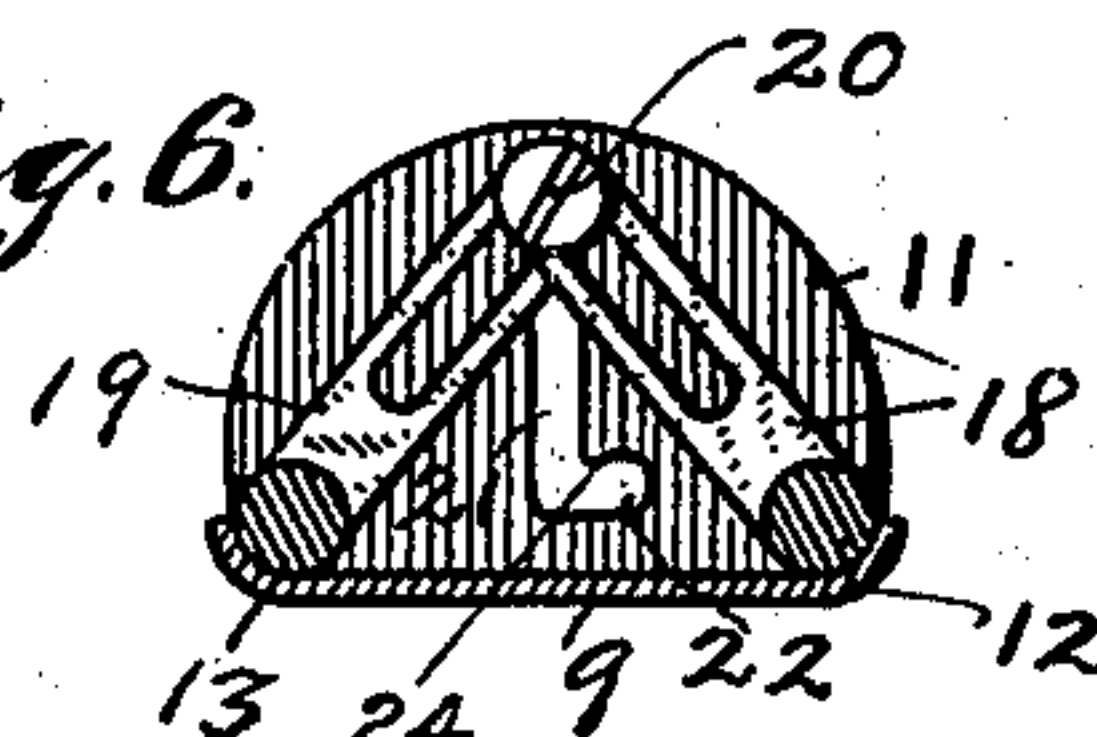


Fig. 6.



Witnesses,
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UNITED STATES PATENT OFFICE.

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

BINDING-FILE.

SPECIFICATION forming part of Letters Patent No. 736,343, dated August 18, 1903.

Application filed December 16, 1902. Serial No. 135,379. (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 Binding-Files, of which the following is a specification.

This invention relates to files for binding loose leaves of all kinds and may be made in large or small sizes. It may be used for retaining the leaves of a loose-leaf ledger, and is particularly well adapted for holding the leaves of price-books, but it is not desired to limit its application to any special use.

The object of the invention is to provide a flat opening device which will fully expose all portions of the page and when opened out on a desk or table will lie down so as to provide a firm and flat surface for writing.

The object also is to provide a file which when filled with sheets can be opened so as to permit the removal or insertion of one or more sheets without bending the covers back.

A further object is to provide a strong, durable, simple, and inexpensive binding-file.

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

Figure 1 is a front view of my improved file in a flat open position with only a few of the leaves or inserts in position; Fig. 2, a section of same on the line 2 2 of Fig. 1; Fig. 3, a detail of same looking from the line 3 3 of Fig. 1; Fig. 4 the same as Fig. 3, except that the binding-hooks are in open position; Fig. 5, a cross-section of the metal back on the line 5 5 of Fig. 1, showing the parts in closed position; and Fig. 6, a like view showing the parts in open position.

Like characters of reference indicate like parts throughout the several views of the drawings.

7 7 represent the front and back covers of the file, which may be of stiff or of flexible material, and 8 is the back, integral with the two covers. This back is reinforced on the inside by the plate 9, preferably of metal. The ends of the plate are turned out at right angles to form the supports 10 and 11 for a pair of parallel rods 12 and 13, which have slightly-reduced ends to form shoulders, and

the ends are inserted up to said shoulders in perforations in said end supports 10 and 11. The two rods carry the binding-hooks 14 14 15 15, here shown as four in number, but the number may be varied without departing from the invention. The hooks are preferably bent on arcs of a circle, as shown. By rocking the two shafts the hooks carried by said shafts will be raised to the positions shown by dotted lines in Fig. 2 and by full lines in Fig. 4, which allows the edge of a proposed leaf or insert to be introduced between the two sets of hooks, and the inserts will be secured by the taking of the hooks through suitable perforations through the material of the said leaves, or, as shown in the drawings, the inserts may have the eyelets 16 to engage the hooks. The eyelets are formed from bends in a wire (shown by dotted lines in Fig. 1 at 17) which is laid inside of the fold between two or more leaves, and the eyelet, fashioned out of the wire by suitably bending it, is passed out through a suitable slot through the bent edges. The rocking of the two rods in directions to open and close the hooks is accomplished by the lateral lever extensions 18 and 19, which overlap each other against the end 11 when the hooks are at closed position. The levers 18 and 19 have longitudinal slots through which the stem of a sliding knob 20 is passed. The adjacent end 11 has vertical slot 21, through which the stem of said knob 20 is passed. By moving the knob 20 to the outer end of slot 21 the rods will be rocked so as to open the hooks, as shown in Fig. 4, and when the knob is moved to the inner end of slot 21 the rods will be rocked to a position which closes the hooks. A lateral notch 22 at the lower end of slot 21 receives the stem of the knob and forms a lock. The side edges of the plate 9 are bent up against the rods, as shown in Fig. 6, to support the rods at their outer sides, and a brace 24, riveted at its middle to the plate 9 and having its ends bearing against the rods, afford inside support to the middles of the rods. The entrance to notch 22 is partially closed by the tongue-like projection 24, which barely allows the pin or shank of the knob 20 to pass by the exertion of an appreciable force. After passing the tongue the notch is large enough to receive

the shank loosely. The tongue thus forms a lock to hold the pin in the notch.

Having thus fully described my invention, what I claim as new, and wish to secure by

5 Letters Patent, is—

1. In a binding-file, the combination with a pair of covers and a back connecting said covers of a plate reinforcing the back on the inner side of the latter, said plate having
10 curved longitudinal edges, a pair of parallel rocking shafts supported longitudinally of the back in the curved edges of said plate, an additional plate between the bars having raised edges to spread and hold the bars,
15 curved hooks carried by said rods the hooks of one rod being at right angles to their rods and connected with alternate opposite rods, and means for rocking the rods in opposite directions to open and close the hooks.
20 2. In a binding-file, the combination with a pair of covers and a back connecting same,

of a reinforcing-plate on the inner side of the back said plate having its ends bent out to form supports, a pair of parallel rods supported by said bent ends of the plate one of
25 said ends having a slot at right angles to a plane through the axes of the rods, said rods having binding-hooks and lateral arms the arms and hooks of each rod being projected toward the other rod and the arms being in
30 contact with each other and located adjacent to the slotted end of the plate, the lower end of the slot of the plate having a notch, and a pin passing through all of the slots and sliding therein to rock the rods. 35

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.