

No. 736,338.

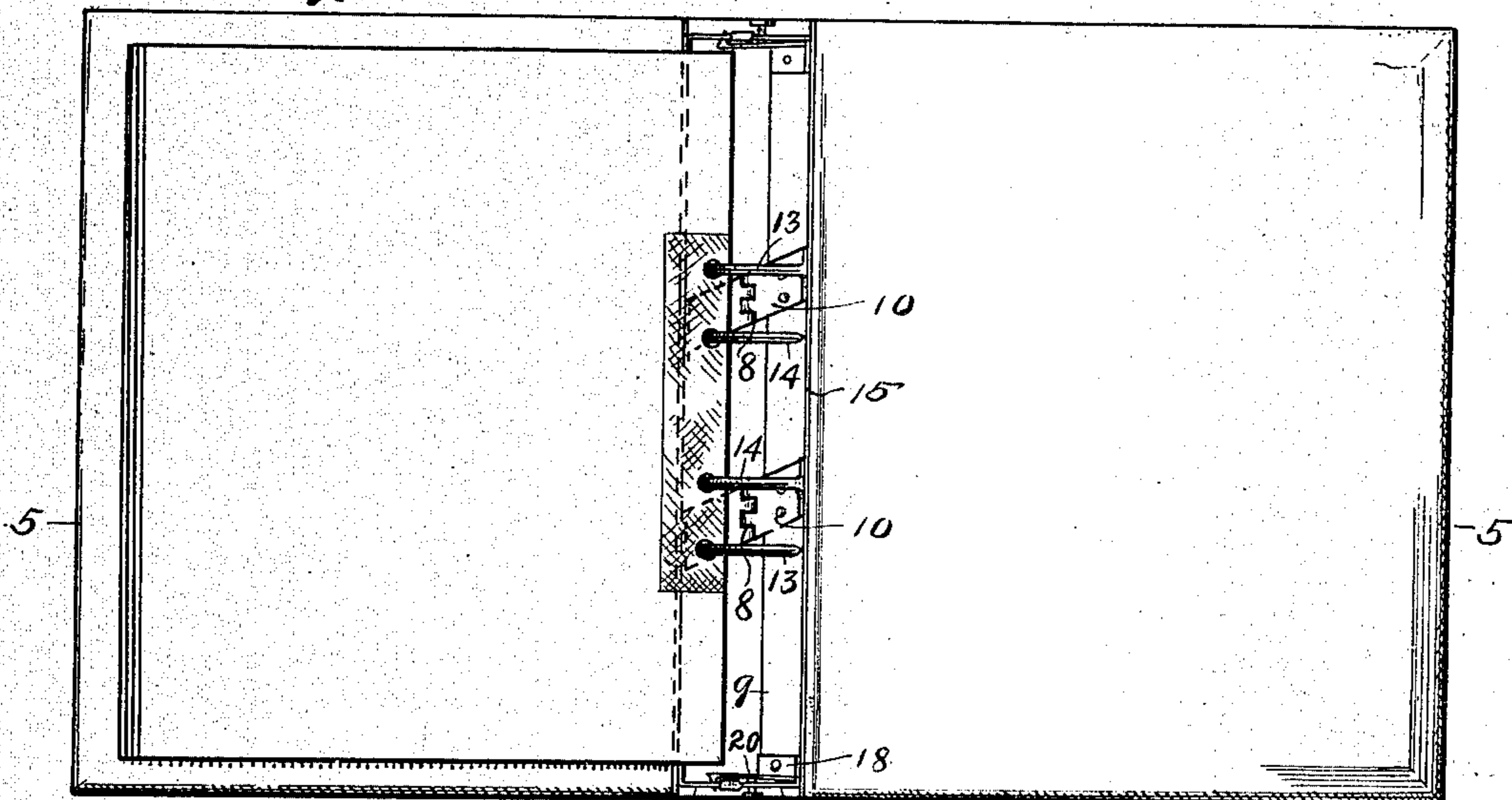
PATENTED AUG. 18, 1903.

E. T. A. AKASS.  
BINDING FILE.

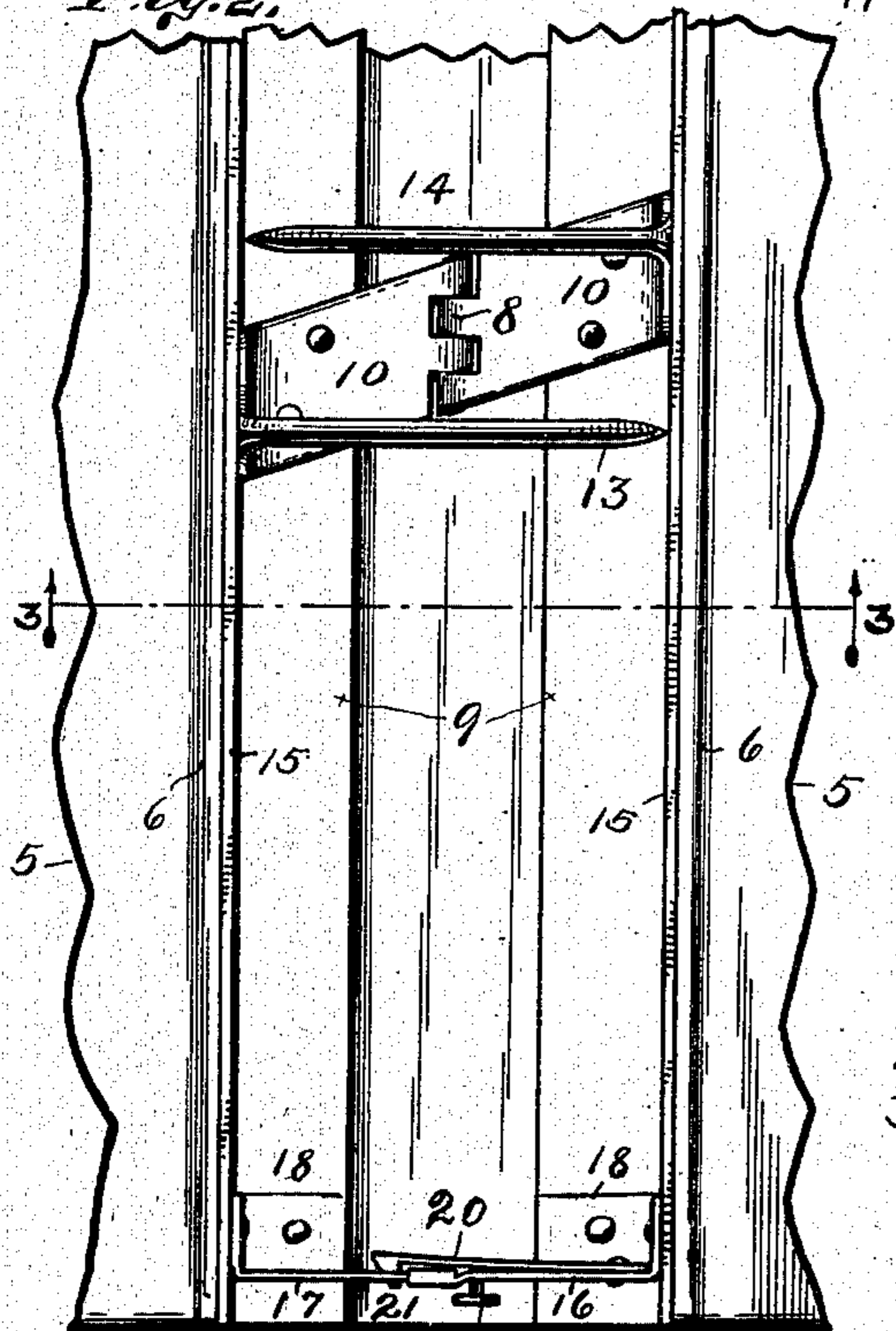
APPLICATION FILED OCT. 11, 1902.

NO MODEL.

*Fig. 1.*



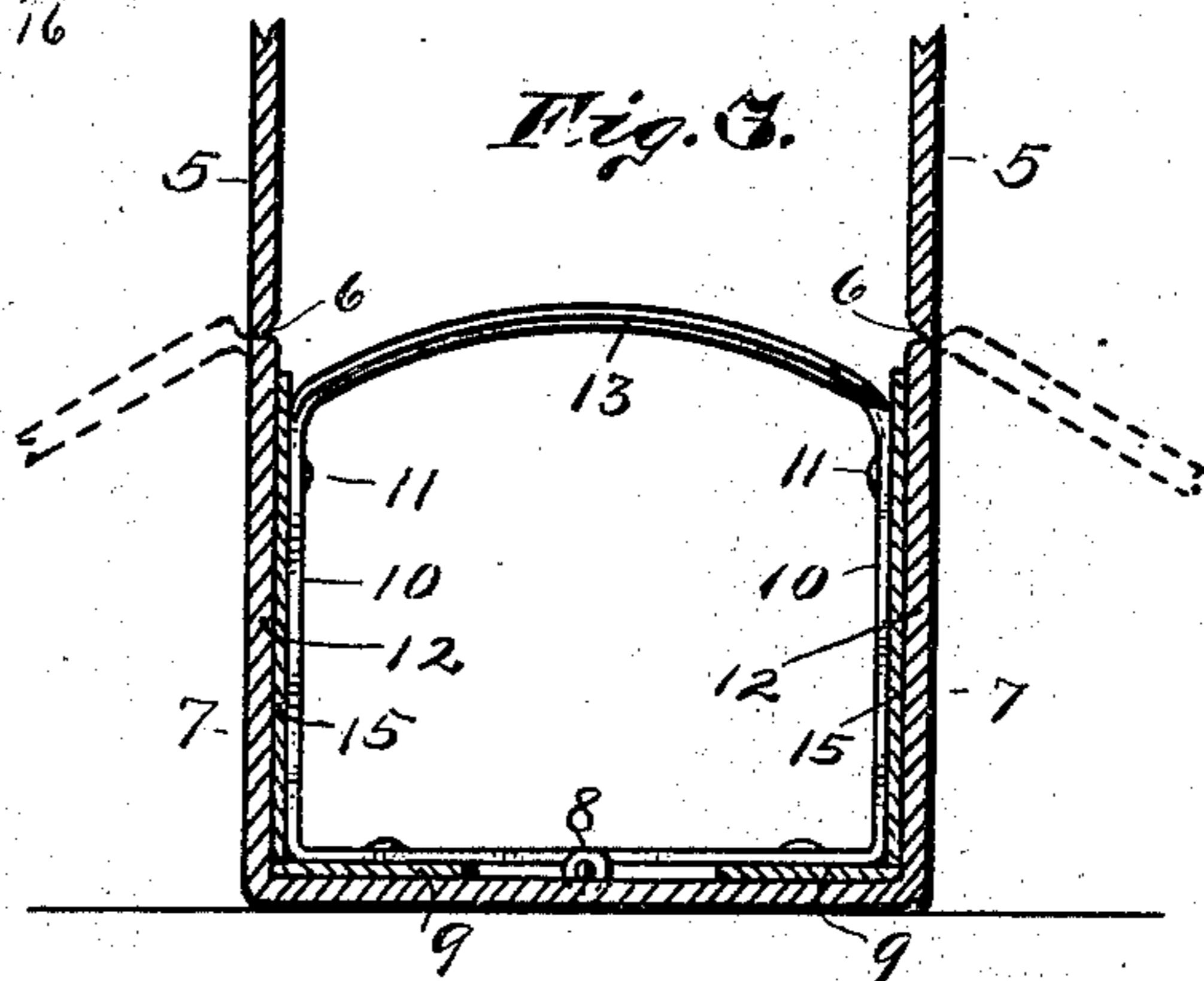
*Fig. 2.*



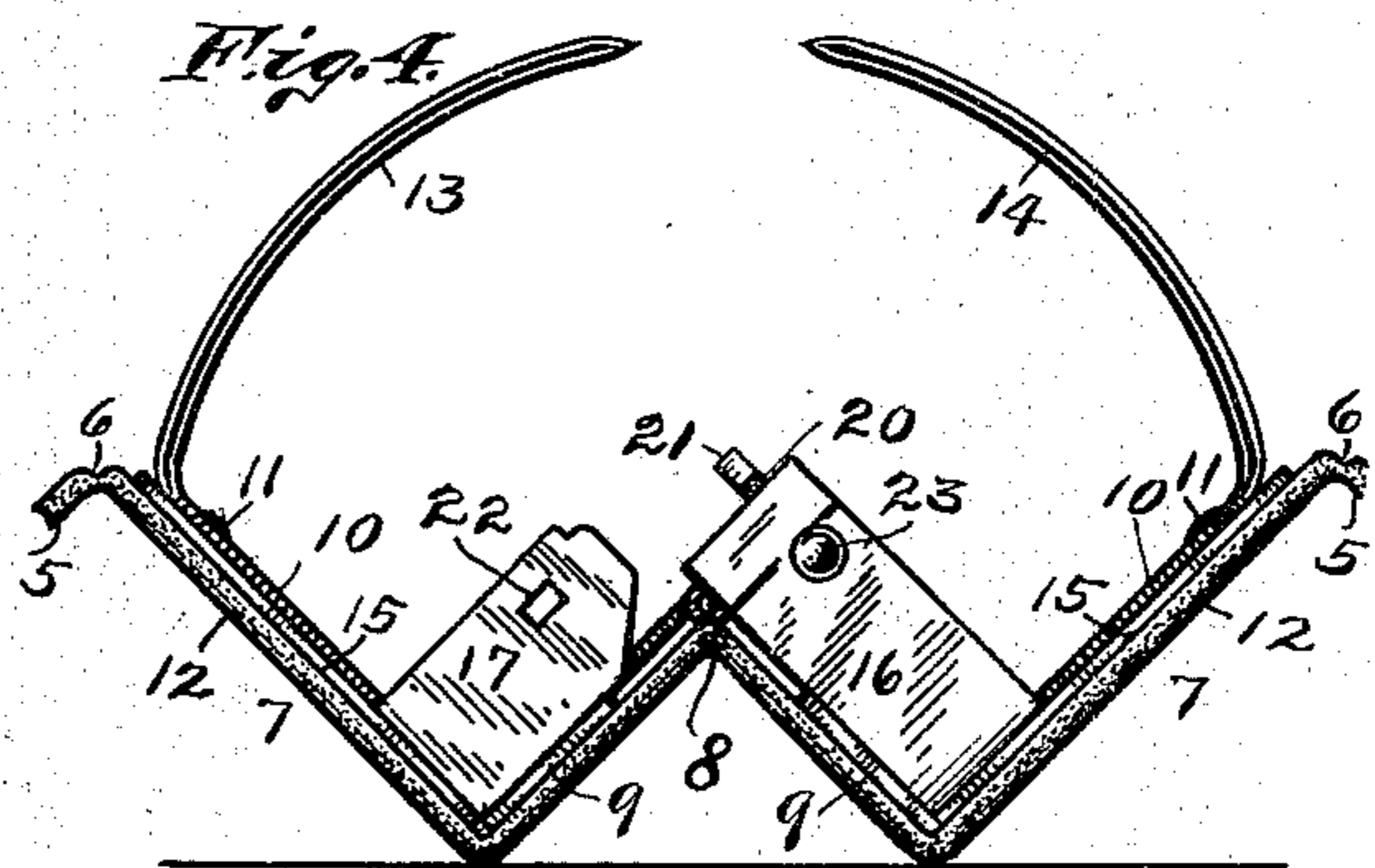
WITNESSES:

*John Rothermoor,*  
*Sheldon Angus,*

*Fig. 3.*



*Fig. 4.*



INVENTOR.

*Edward T. A. Akass,*

BY *Joseph A. Minturn,*

ATTORNEY.

## UNITED STATES PATENT OFFICE.

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

## BINDING-FILE.

SPECIFICATION forming part of Letters Patent No. 736,338, dated August 18, 1903.

Application filed October 11, 1902. Serial No. 126,849. (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 improvements in binding in which the leaves or inserts of any kind—such as pamphlets, music, newspapers, or the like—may be removably secured in a manner to permit of the easy and quick removal of any of said removable sections without removing or displacing the associated parts.

The object of the invention is to provide a strong and durable binder in which the curved prongs for holding the leaves are integral with the hinges to insure rigidity and the concentricity of said prongs around the pintles of said hinges.

The object of the invention also is to provide a body for the back of the binder, which can be made in lengths suitable for the longest backs and reduced for shorter sizes by cutting off the ends of the bars to which the hinges are fastened.

The further object of the invention is to improve and simplify the construction and increase the economy and efficiency of the binder.

To these ends the invention consists in the construction, combination, and arrangement of the several parts of the binder, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a front open view of my improved binder; Fig. 2, a detail, on a larger scale than Fig. 1, of the lower hinge and prongs in closed position; Fig. 3, a detail in section on the dotted line 3 3 of Fig. 2, and Fig. 4 a detail in end view of the back in open position of the hinge and prongs.

The two covers 5 of my improved binder are connected by flexible joints or hinges 6 to the two parts or halves 7 of a back. The two halves 7 are connected by hinges 8, whereby said halves may be opened out from each

other in the same general direction as their respective covers are made to open. The back has the two inside parallel metal bars 9, to which the straps 10 of the hinges are securely fastened in any suitable manner, as by riveting, as shown in the drawings. These leaves are bent in the direction of the covers 5 at right angles to the bars 9, as shown, or they may be curved, if a round instead of a square cornered back is desired. These bent leaves are riveted, as shown at 11, to the sides 12 of the back and terminate thence in the pins or prongs 13 and 14, which are bent on a curve described from the pintle of the hinge 8 as a center. Each hinge will thus provide two hooks springing from opposite sides of the back. These will be parallel and separated a suitable distance, usually about an inch in actual practice, and in order to secure this separation the leaves of the hinge are set diagonally of the back, as clearly shown, and the hinge is at a corresponding obliquity to the edges of the said leaves.

In order to stiffen and strengthen the sides 12 of the back, I provide the metal plates 15 between the leaves of the hinges and the sides 12. These plates 15, however, are not essential features of the device.

The sides 12 and the bars 9 are held at right angles to each other or at whatever position has been determined by the plates 16 and 17, having the lugs 18, which latter are riveted to their respective holding parts. The bars 9 may be made up with their hinges in lengths great enough for the longest books and are quickly adapted to shorter ones by cutting off the ends of the bars before the plates 16 and 17 are placed, and the latter are then riveted at the required points. This is a great convenience and economy in the manufacture of binding-files where the manufacturer must be prepared to supply the demand for books of various lengths.

The plates 16 and 17 afford attachment for a fastener by means of which the back halves are locked together. This fastener comprises the spring-lever 20, riveted at its end to the inside of plate 16 and projecting beyond plate 16 and terminating with the outwardly-beveled hook 21, which engages the slot 22 in the plate 17. The lever is pressed in to dis-

engage the hook from its slot 22 by the button 23, as will be clearly understood from the drawings. When the two parts of the back are closed, the catch will lock automatically.

5 It is not desired to limit the invention, however, to this particular locking device, as various other suitable means may be used.

For taking a page or any detachable part from the binder the file is opened like an ordinary book at the point where the desired leaf is located. When the back is next opened the pages on either side will be carried away with the cover, but will be held together in their proper order by the pins or prongs 13 and 14, which pass through suitable perforations in said leaves or other suitable eyelets connected with the said leaves. When so opened, a page can be readily taken from the binder, while its insertion is similarly effected with great facility.

I prefer to use four hooks for each binder—two springing from each side of the back of binder, as shown; but this number may be varied, if desired.

25 It will be noted from the drawings that the metal bars 9 are of the same length as the covers and back of the binder. This is important for the reason that it protects the locking device and stiffens and strengthens the lower end of the back and covers when the file is stood on end on the shelf, where they are commonly kept. Without this stiffening of metal the cardboard material of the binder would soften by use and wear and the weight of the file contents, causing the file to lose its shape.

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

40 1. A binder comprising a one-piece flexible back, stiffening-bars on each side of the longitudinal middle of the back of the same length as said back, hinges having leaves rigidly secured to said bars, said leaves terminating in impaling-hooks curved in the arc of

a circle the center of which is the center of the hinge-pintle.

2. A binder comprising a pair of covers, a one-piece flexible back integral with said covers, a pair of bars longitudinally of the back secured to the inside one on each side of the mid-line thereof, hinge connecting the bars and the back sections set diagonally of said back, said hinges terminating in impaling-prongs curved on a circle centering at the pintle of the respective hinges, said prongs being at right angles to the longitudinal dimensions of the back.

3. A binder comprising a pair of covers connected by a one-piece flexible back, a pair of stiffening-bars, hinges between the stiffening-bars, said hinges having leaves which are fastened to the bars and terminate in curved impaling-prongs set to point inwardly from either side of the back, and a spring-lock secured to the inside of the divided back to hold the divided sections in closed position.

4. In a binder comprising covers connected by a one-piece flexible back, a pair of bars secured to the inside of the back longitudinally thereof, plates transversely of said bars at right angles thereto secured at the ends of the bars and having a spring-latch in one plate adapted to engage a catch in the other plate, and hinges midway of the said parallel bars, said hinges having leaves which pass diagonally from bar to bar to which they are rigidly secured, and thence around the inside of the back and terminate in impaling-prongs positioned at right angles to the back and curved on a circle described from the center of the hinges.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 22d day of September, A. D. 1902.

EDWARD T. A. AKASS. [L. S.]

Witnesses:

JOHN B. SHERWOOD,  
J. A. MINTURN.