

E. L. KRAG.
TEMPORARY BINDER.

APPLICATION FILED DEC. 9, 1901. RENEWED OCT. 6, 1902.

NO MODEL.

Fig. 1.

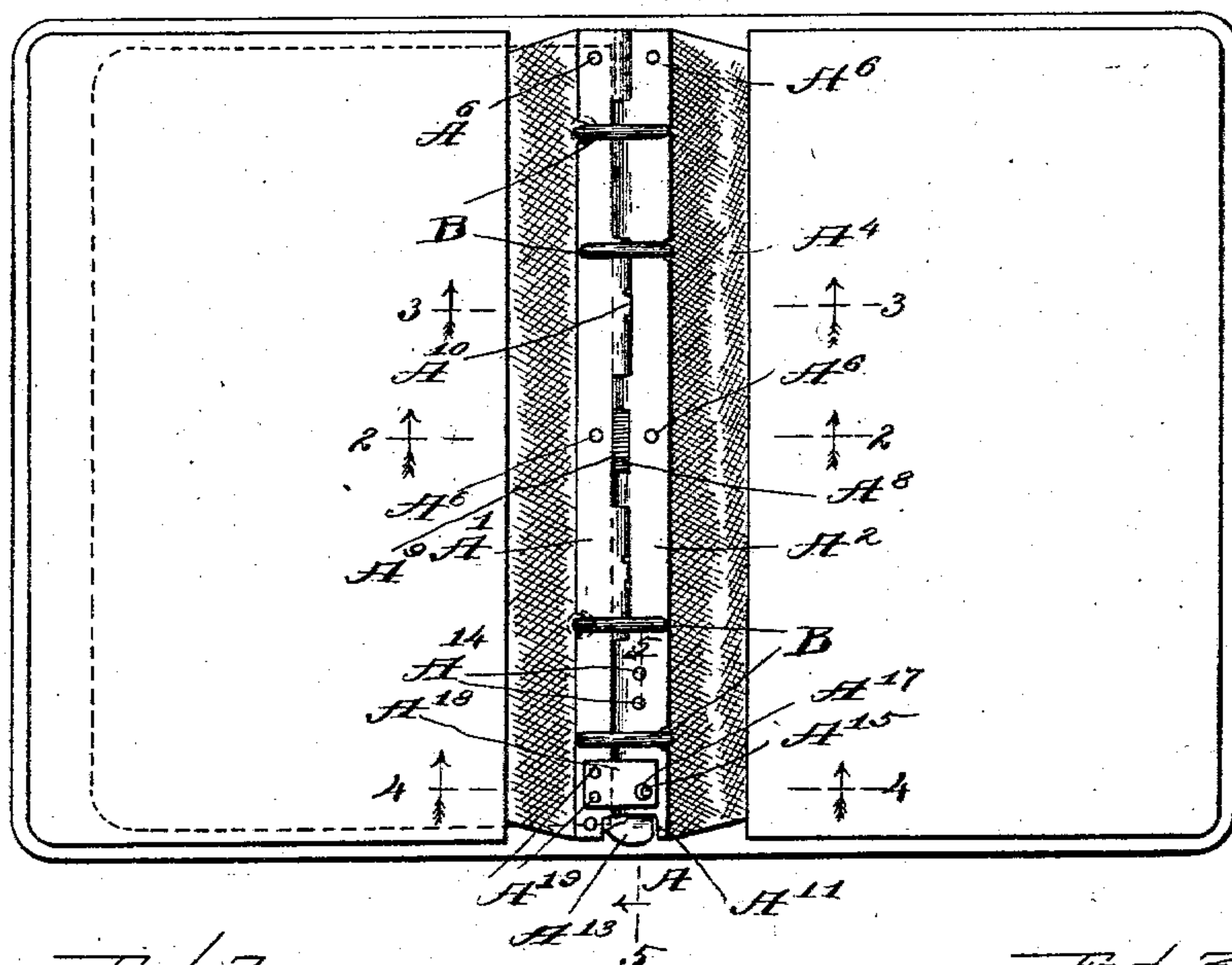


Fig. 2.

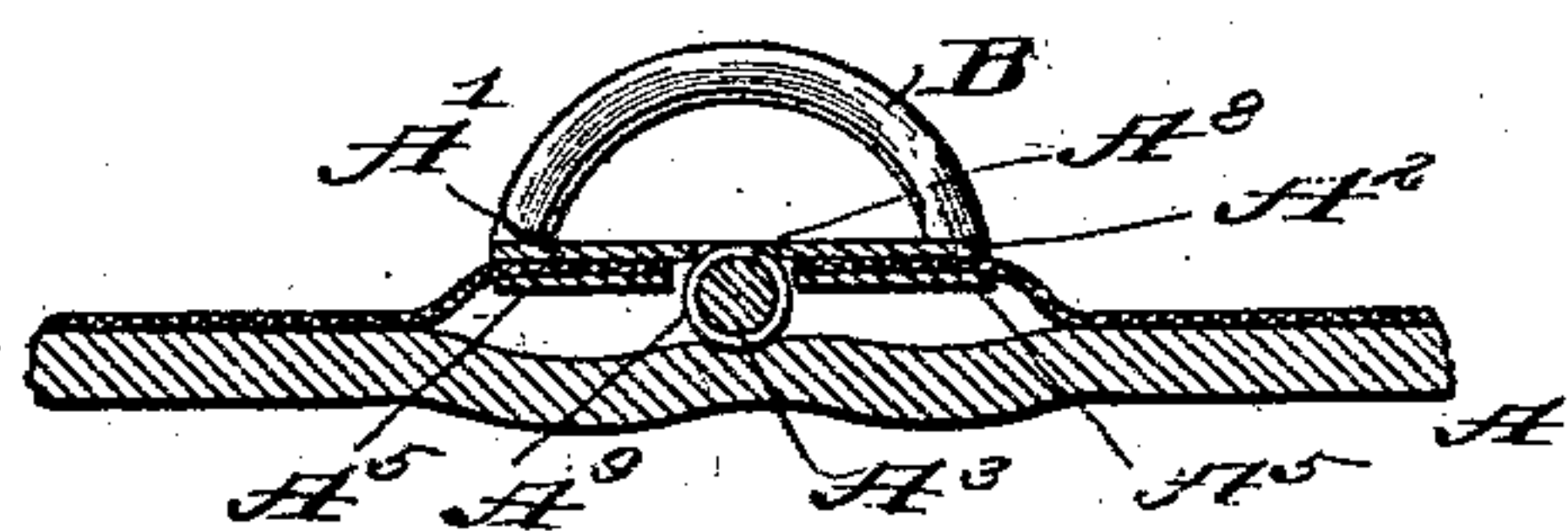


Fig. 3.

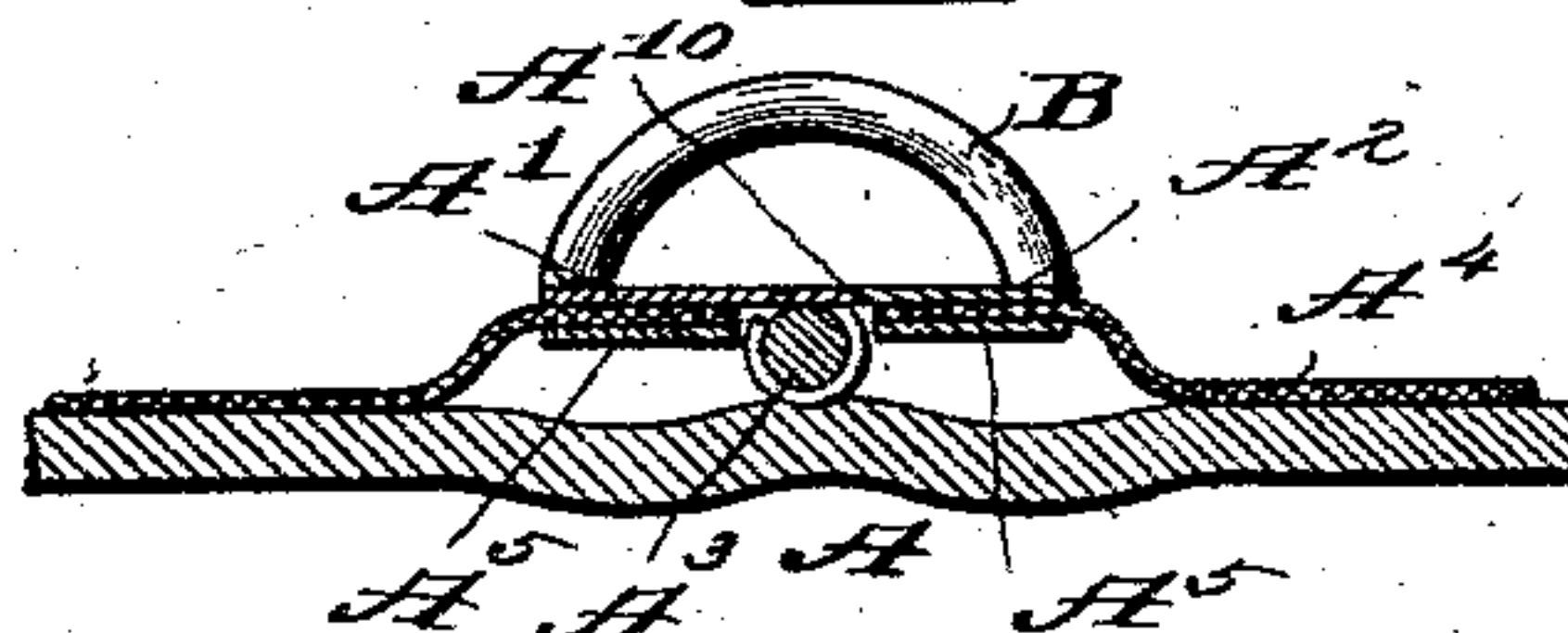


Fig. 5.

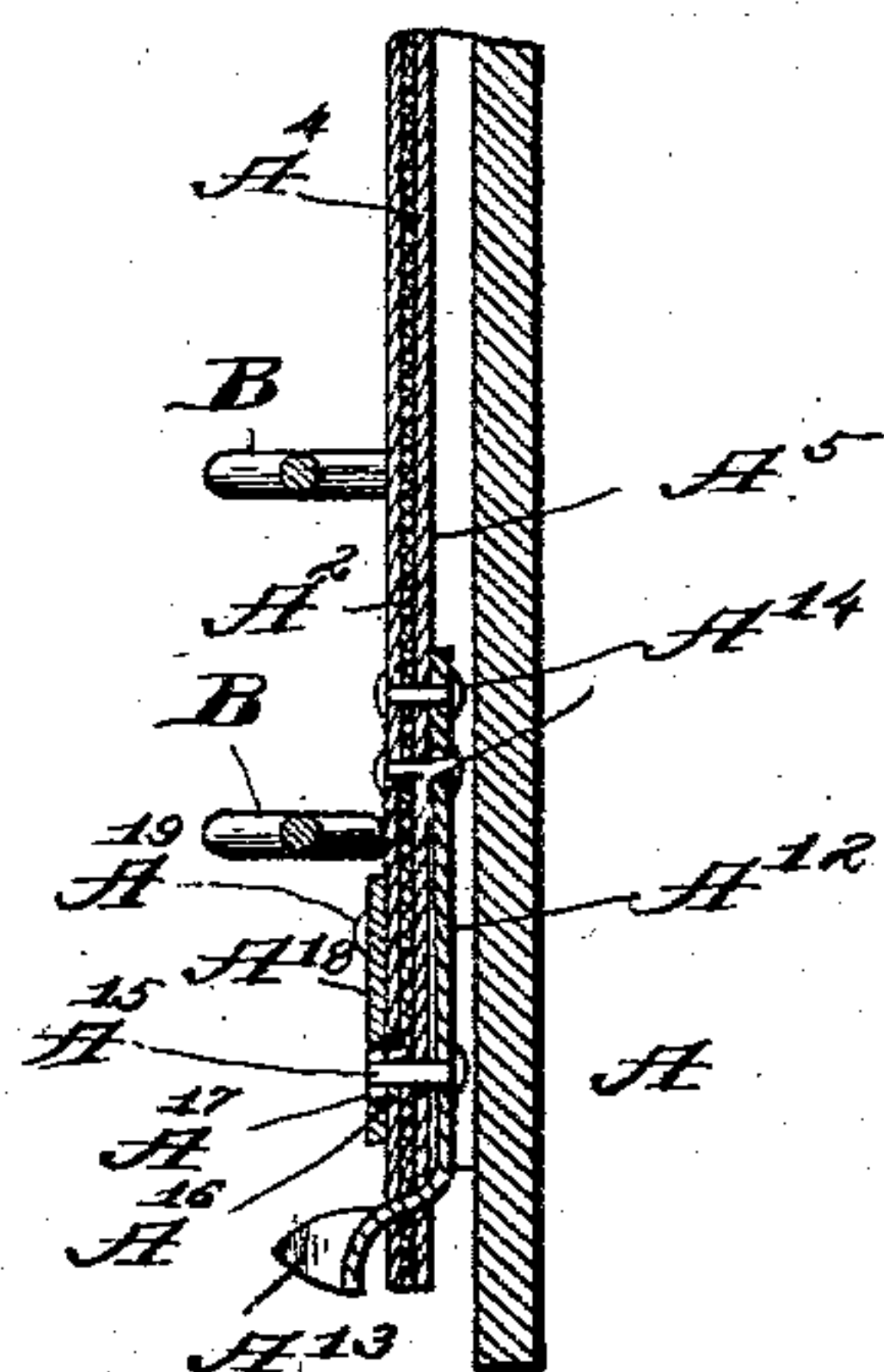


Fig. 4.

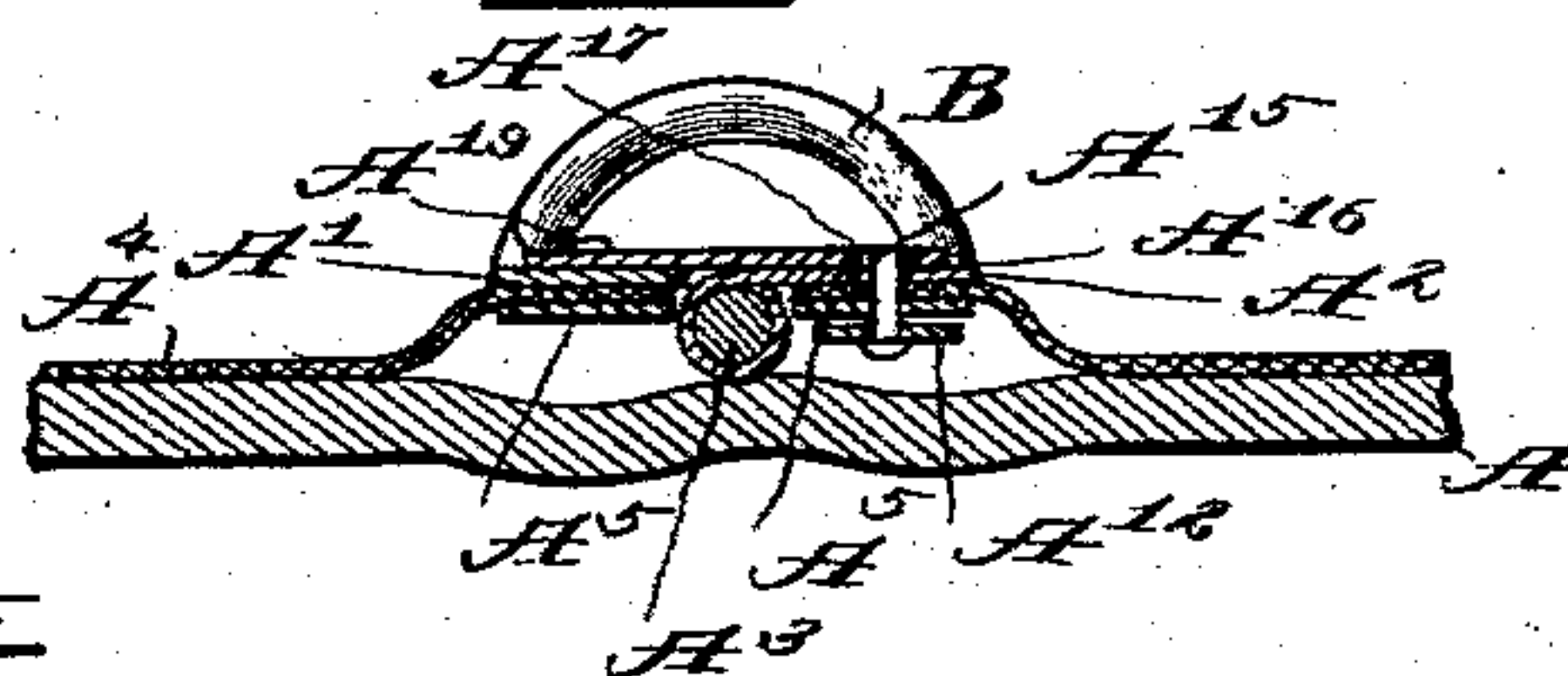
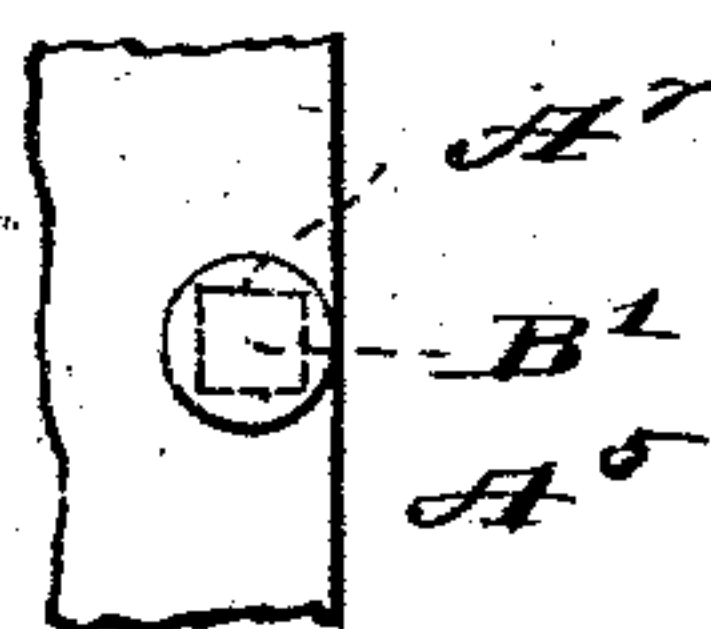


Fig. 6.



Witnesses—

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Geo. L. Chindahl

Inventor—

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UNITED STATES PATENT OFFICE.

ERIK L. KRAG, OF CHICAGO, ILLINOIS.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 730,544, dated June 9, 1903.

Application filed December 9, 1901. Renewed October 6, 1902. Serial No. 126,074. (No model.)

To all whom it may concern:

Be it known that I, ERIK L. KRAG, 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 Temporary Binders, of which the following is a specification.

The object of this invention is the production of a temporary binder for loose leaves embodying the several improvements hereinafter shown and described.

In the accompanying drawings, Figure 1 is a front elevation of my improved binder made up in book form. Fig. 2 is a transverse section through the binder on dotted line 2 2 of Fig. 1. Fig. 3 is a transverse section through the binder on dotted line 3 3 of Fig. 1. Fig. 4 is a transverse section on dotted line 4 4 of Fig. 1. Fig. 5 is a longitudinal section through the locking device, taken on dotted line 5 5 of Fig. 1. Fig. 6 is a detail view showing in dotted lines the form of opening for the reception of the holding-pins of the binder.

My improved binder comprises a back portion A, having two leaves or members A' and A², pivotally joined together at their adjacent edges, A³ being the pintle upon which said members are mounted. For the purpose of securing these hinged members within suitable covers I provide the binding-strip A⁴, of canvas or other suitable material, secured to the rear sides of the hinged members by means of the plates A⁵, one of which plates is fastened to the rear face of each of said hinged members by means of the rivets A⁶, extending through suitable coinciding openings in said plates and said hinged members. The binding-strip A⁴ may be either in one or two pieces. In the drawings it is shown in two parts in order that it shall not hide other portions of the binder. The outer edges of the hinged members A' and A² are provided with notches, and at points coincident with said notches said plates A⁵ have the rectangular openings A⁷, which notches and rectangular openings are provided to receive the curved holding-pins of the binder.

At about the middle of the back portion A the two hinged members A' and A² are cut away in the opening A⁸ to permit the mounting of the coil-spring A⁹ upon the pintle A³.

One of the ends of this coil-spring lies between the hinged member A' and the plate A⁵, secured to the rear face thereof, and the other end of said spring lies between the hinged member A² and the plate A⁵. The tendency of the spring is to hold the binder closed. The inner edge of the hinged member A' is cut away at intervals to afford stop-shoulders A¹⁰, adapted to impinge against the adjacent edge of the hinged member A² to limit the hinge movement of the members A' and A² in one direction.

At one end of the back portion A of the binder, preferably the lower end thereof, I provide a locking device for holding the hinged members A' and A² in a normal or closed position. To provide for this locking device, a notch A¹¹ is formed in one end of the body portion, which notch extends part way across both of the hinged members A' and A². A flat spring A¹², having a thumb-plate A¹³ at its free end, is secured by means of the rivets A¹⁴ to the rear side of the body portion A. This spring, near the thumb-plate A¹³, carries a locking projection A¹⁵, adapted to extend through an opening A¹⁶ through the body portion and into an opening A¹⁷, formed in a locking-plate A¹⁸, secured by the rivets A¹⁹ to the hinged member A'. When the hinged members A' and A² are in their normal position, the locking-stud A¹⁵ lies within the opening A¹⁷ in the locking-plate A¹⁸ and holds said hinged members from movement. To open the hinge-joint, the flat spring A¹² is depressed by bearing downward upon the thumb-plate A¹³ until the locking projection A¹⁵ is withdrawn from the opening A¹⁷ in the locking-plate A¹⁸. The elasticity of the spring A⁹ still holds the hinged members in their normal position; but this may be easily overcome and the hinged members opened upon the pintle A³.

Locking-pins B, having rectangular shanks B', are secured in the openings A⁷ of the plate A⁵ and extend upward above the face of the hinged members A' and A², passing through the notches in the outer edges of said hinged members and curving over the faces thereof in circles substantially concentric with the pintle A³. The ends of the locking-pins B are adapted to impinge upon the face of the back portion, thus cooperating with

the stop-shoulders A¹⁰ to limit the forward movement of the hinged members.

The embodiment of my invention herein shown and described is susceptible of various modifications, slight changes in the form and arrangement of parts being possible without a departure from the spirit of my invention. I therefore desire to have it understood that I do not limit myself to the specific construction herein set forth.

I claim as my invention—

1. In a temporary binder, in combination, two thin, flat back members hinged together at their adjacent edges; curved holding-pins fixed with relation to each of said members, said holding-pins being adapted to impinge upon the face of the opposite hinged member to that with which they travel, to form a stop for the movement of the hinged members in one direction; a locking-plate fixed with relation to one of said hinged members; and a locking-spring secured to the under side of the other of said hinged members, which spring has a locking projection adapted to engage with said locking-plate to hold said hinged members in a normal position.

2. In a temporary binder, in combination, two thin, flat back members hinged together at their adjacent edges; curved holding-pins fixed with relation to each of said members; a spring in said hinge; a stop-shoulder on one of said members, adapted to impinge upon the adjacent edge of said other hinged member to limit the movement of said hinged members in one direction; a locking-plate having an opening therein, secured to one of said hinged members; and a locking-spring having a locking projection, secured to the under side of the other of said hinged members, which locking projection is adapted to engage with the locking-opening of said locking-plate to hold said hinged members in a normal position.

3. In a temporary binder, in combination, two back members hinged together; a bind-

ing-strip; two plates adapted to secure said binding-strip to said hinged members, said plates being provided with openings; and curved holding-pins having shanks adapted to lie within the openings in said plates.

4. In a temporary binder, in combination, two back members hinged together; a binding-strip; two plates for securing said binding-strip to said hinged members, said plates being provided with openings; and curved holding-pins having shanks adapted to lie within the openings in said plates, the curve of which pins is substantially concentric to the hinge-joint between said hinged members, and the outer ends of which pins are adapted to impinge upon the face of the hinged member opposite to the one with which they move, in order to form a stop to limit the movement of said hinged members in one direction.

5. In a temporary binder, in combination, two back members hinged together; a binding-strip; two binding-plates for securing said binding-strip to said hinged members, said plates being provided with openings; curved holding-pins having shanks adapted to lie within said openings; a stop-shoulder formed integral with one of said hinged members and adapted to impinge upon the face of the other of said hinged members to limit the movement of said hinged members in one direction; a spring between said hinged members adapted to move them into their normal position; and a locking device comprising a locking-plate having an opening therein, secured to one of said hinged members, and a locking-spring having a projection adapted to engage with the opening in said locking-plate, which spring is secured to the other one of said hinged members.

ERIK L. KRAG.

Witnesses:

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GEO. L. CHINDAHL.