

No. 785,078.

PATENTED MAR. 21, 1905.

M. O. BONG.
TEMPORARY BINDER.
APPLICATION FILED JULY 27, 1904.

Fig. 1.

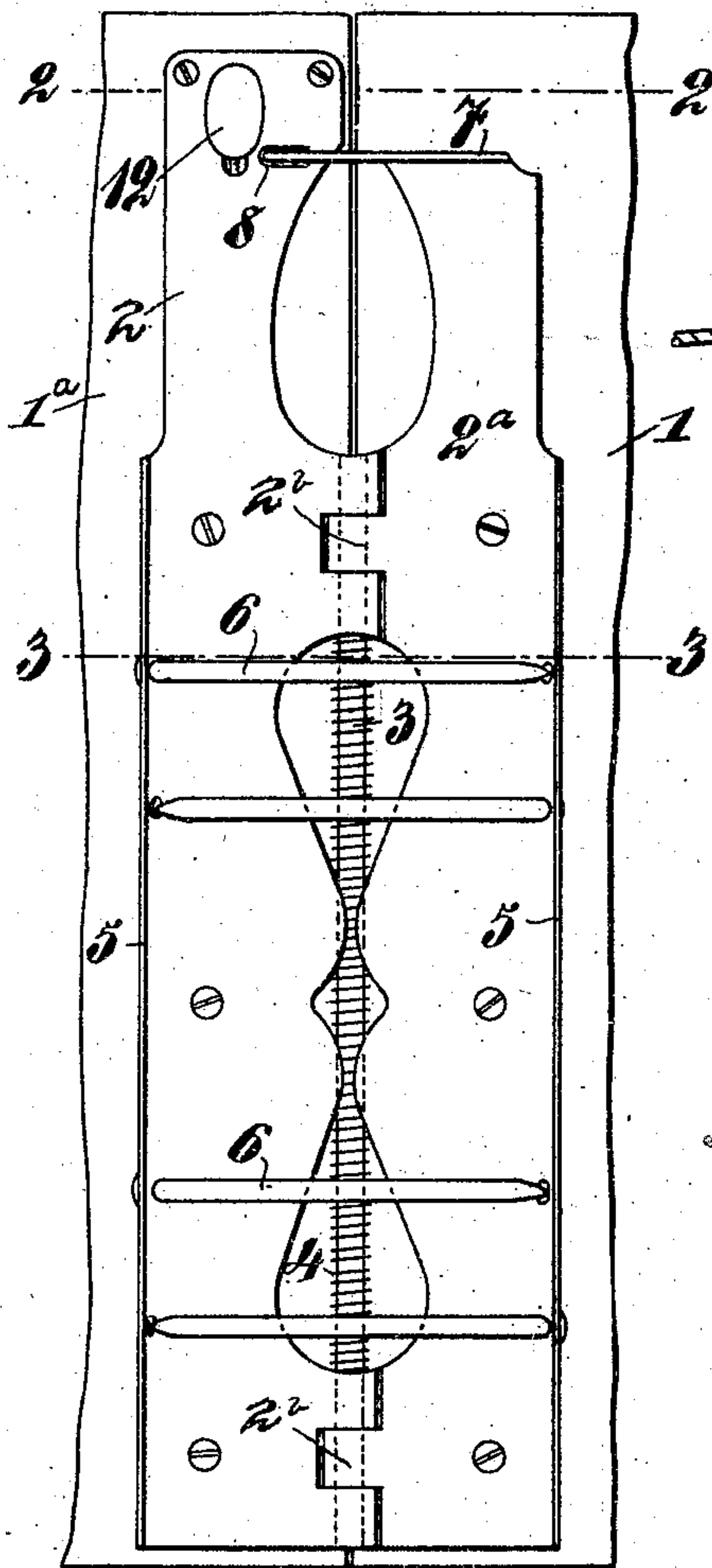


Fig. 2.

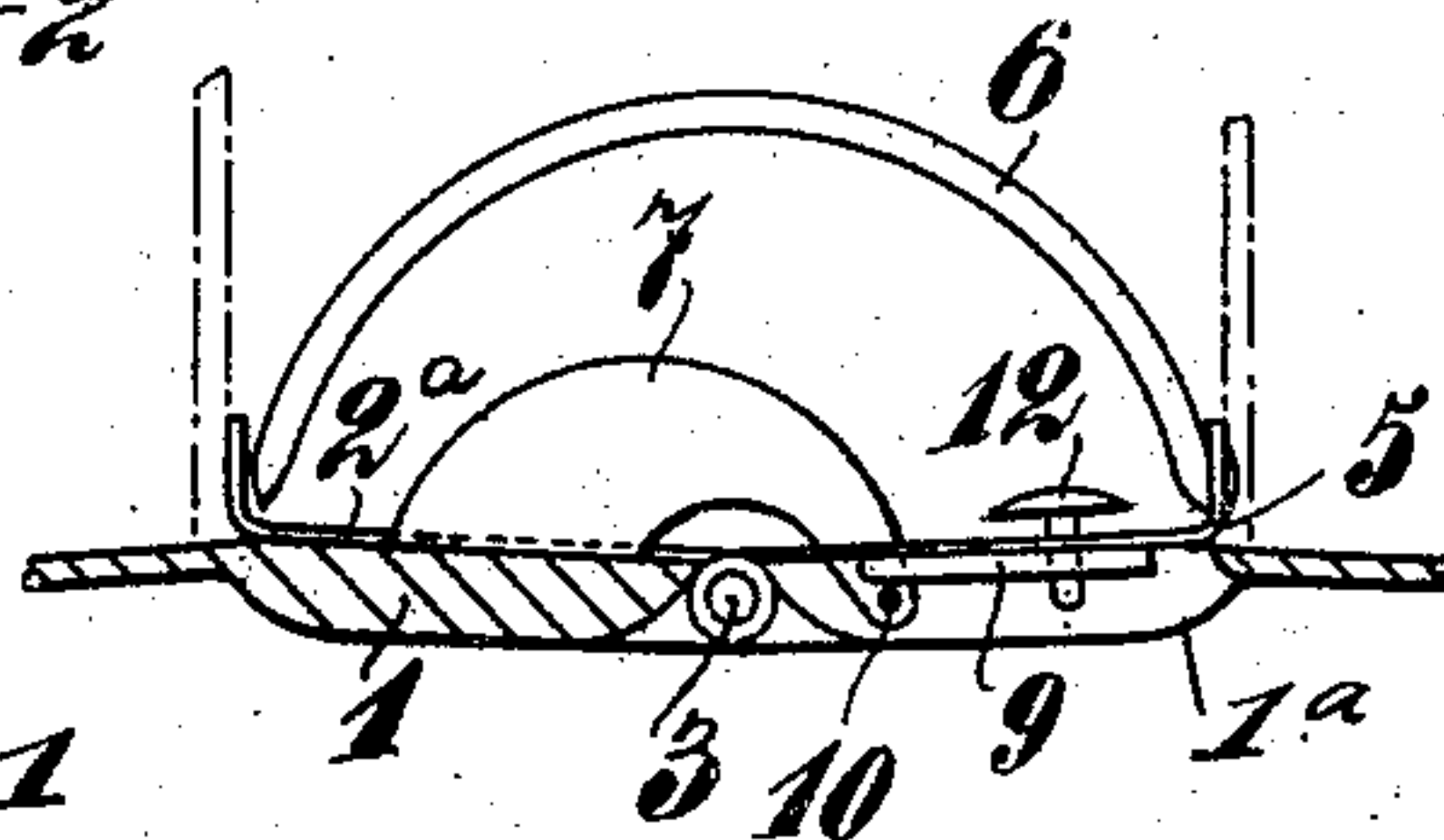


Fig. 3.

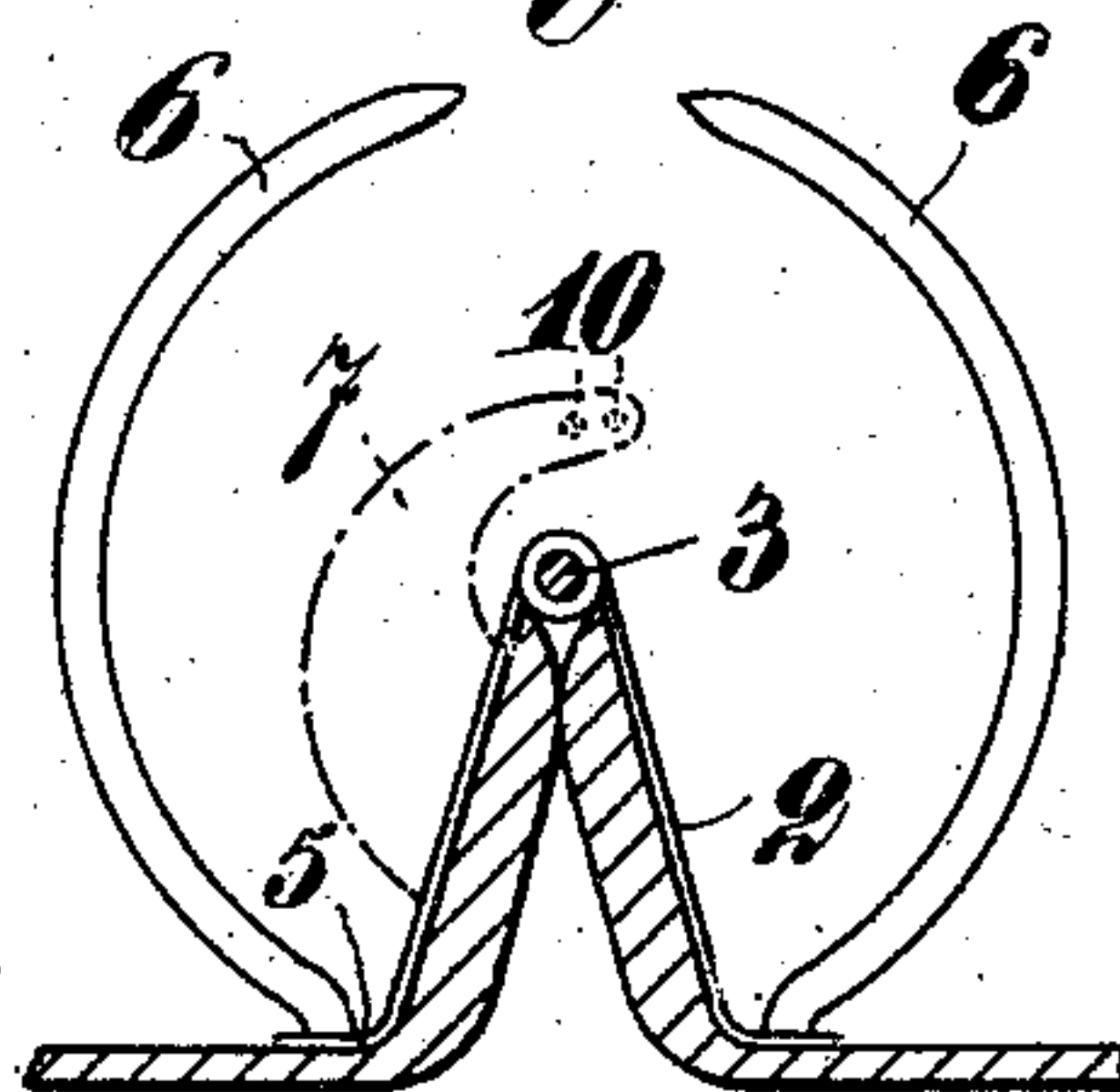


Fig. 4.

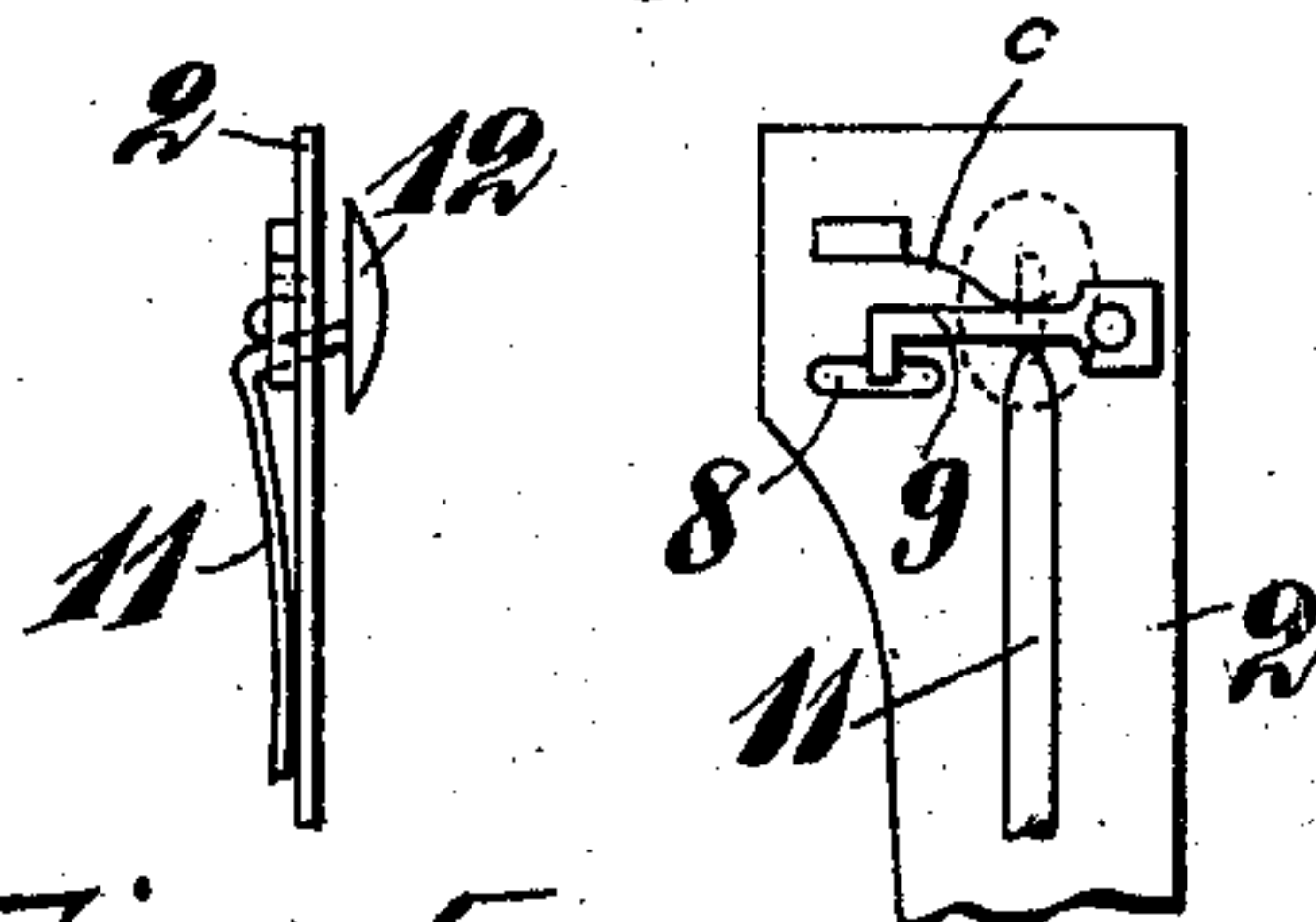


Fig. 5.

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MARTIN OLOF BONG, OF CHRISTIANSTAD, SWEDEN.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 785,078, dated March 21, 1905.

Application filed July 27, 1904. Serial No. 218,403.

To all whom it may concern:

Be it known that I, MARTIN OLOF BONG, a subject of the King of Sweden and Norway, residing at Christianstad, Sweden, have invented certain new and useful Improvements in Temporary Binders, of which the following is a specification.

This invention relates to temporary binders, and has for its object to provide an improved device of this character which is capable of opening upon a hinge to facilitate the introduction and removal of loose sheets and which is arranged to facilitate the turning of the sheets from one side to the other of the binder.

A further object of the invention is to provide for locking the hinge of the binder in the normal condition of the latter, so as to maintain the impaling-pins and other parts of the device in fixed relations, and to provide for conveniently releasing the hinge to permit of the back of the binder being broken or folded back to bring the impaling-pins into position for insertion and removal of loose sheets.

A still further object of the invention is to effect an automatic breaking or folding of the back when the locking means is released and to have said locking means always exposed in position for convenient access.

With these and other objects in view the present invention consists in the combination and arrangement of the parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a plan view of a temporary binder embodying the features of the present invention. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1 in the normal condition of the binder. Fig. 3 is a similar view on the line 3 3, with the back of the binder broken or folded to permit insertion and removal of loose sheets. Fig. 4 is a detail view of the binder inverted

to show the means for locking and releasing the catch member. Fig. 5 is an edge view thereof.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The present device includes plate members 2 and 2^a, which are connected at their inner edges by spaced hinge-knuckles 2^b with a pintle 3, serving for both knuckles, there being a helical spring 4 wound about the pintle, with its opposite ends engaged with the respective plate members under tension, so as to tend to fold the plate members back upon themselves, as indicated in Fig. 3. These plate or hinge members are secured by screws or other suitable fastenings to the back members 1 and 1^a. The outer edge of each plate member is bent up to produce a flange 5, and to these flanges are connected bowed or arcuate impaling-pins 6, which arch upwardly in the normal condition of the binder and are arranged in pairs, with one member of each pair carried by one flange and the other member carried by the opposite flange.

To maintain the plate members in substantial alinement in the normal condition of the binder, an arcuate latch 7 is rigidly carried by one end of one of the members and has its smaller end projected downwardly through a slot or opening 8 in the other member. Upon the under side of the member 2 there is a pivotal catch 9, which has its hooked end working across the slot 8, so as to engage one of a series of perforations 10 in the free end of the latch 7, as best illustrated in Fig. 2 of the drawings. A suitable spring c is connected to the under side of the member 2 and engages the catch 9 to yieldably maintain the latter in engagement with the latch. To facilitate disengagement of the catch from the latch, a spring-arm 11 is secured to the under side of the member 2 and has its free end bent upwardly and passed through an opening in the member 2 and provided with a finger-piece 12 upon the upper side of the plate member, said end portion of the spring-arm lying against the in-

ner edge of the pivotal catch 9 and operating as a trip-cam to force the latch out of engagement with the catch when the finger-piece 12 is depressed.

5 With the device locked in its normal position, as in Fig. 2, to insert or remove a loose sheet the finger-piece 12 is depressed, thereby disengaging the catch 9 from the latch 7, whereupon the spring 3 will automatically
10 break the joint between the members 2 and 2^a, so as to fold the same backwardly, as indicated in Fig. 3, whereby the impaling-pins 6 will be thrown into an upright position, with their free ends separated sufficiently to per-
15 mit of a sheet being engaged with or disengaged from the pins. After a sheet has been inserted or removed the backs are returned to their normal positions, thereby swinging the impaling-pins inwardly in opposite di-
20 rections, so as to lap one another, the free end of the latch 7 being projected through the openings 8 and engaged by the spring-catch 9, so as to again lock the device in its normal condition.

25 When the binder has been filled with loose leaves and they are so tightly held therein as to make it difficult to turn quickly the leaves, the latter may be loosened by depressing the finger-piece 12 so as to disengage the catch 9
30 from the latch 7 and then reengage the former in one of the outer perforations 10 of the latch, which moves each set of impaling-pins endwise past the other set, so as to give more room between the fixed end of one set
35 and the fixed end of the other set, thereby loosening the leaves sufficiently to permit convenient turning thereof without danger of the leaves becoming detached.

Having fully described the invention, what is claimed is—

1. A temporary binder comprising hinged members having arcuate impaling-pins overlapping across the joint therebetween, a latch carried by one of the members and piercing the other member, a catch upon the under side of said other member for engagement with the latch, a spring-arm secured to the under side of said other member and having its free end provided with a lateral trip portion piercing the adjacent member and provided upon its upper end with a finger-piece, the trip portion of the spring-arm lying in coöperative relation with the catch to disengage the same from the latch when the finger-piece is depressed.

2. A temporary binder comprising hinged members having arcuate impaling-pins overlapping across the joint thereof, a latch carried by one of the members with its free end piercing the other member, a spring-catch pivoted upon the under side of said other member for engagement with the latch, and a spring-arm secured to the under side of said other member and provided with a lateral trip portion piercing the adjacent member and provided upon its upper end with a finger-piece, said trip portion being disposed in coöperative relation with the spring-catch to disengage the latter from the latch when the finger-piece is depressed.

In witness whereof I have hereunto set my hand in presence of two witnesses.

MARTIN OLOF BONG.

Witnesses:

CFR. BILLING,
MATTE HELLR PROIN.