

No. 649,867.

Patented May 15, 1900.

J. BYSTROM.
TEMPORARY BINDER.

(Application filed Feb. 26, 1900.)

(No Model.)

2 Sheets—Sheet 2.

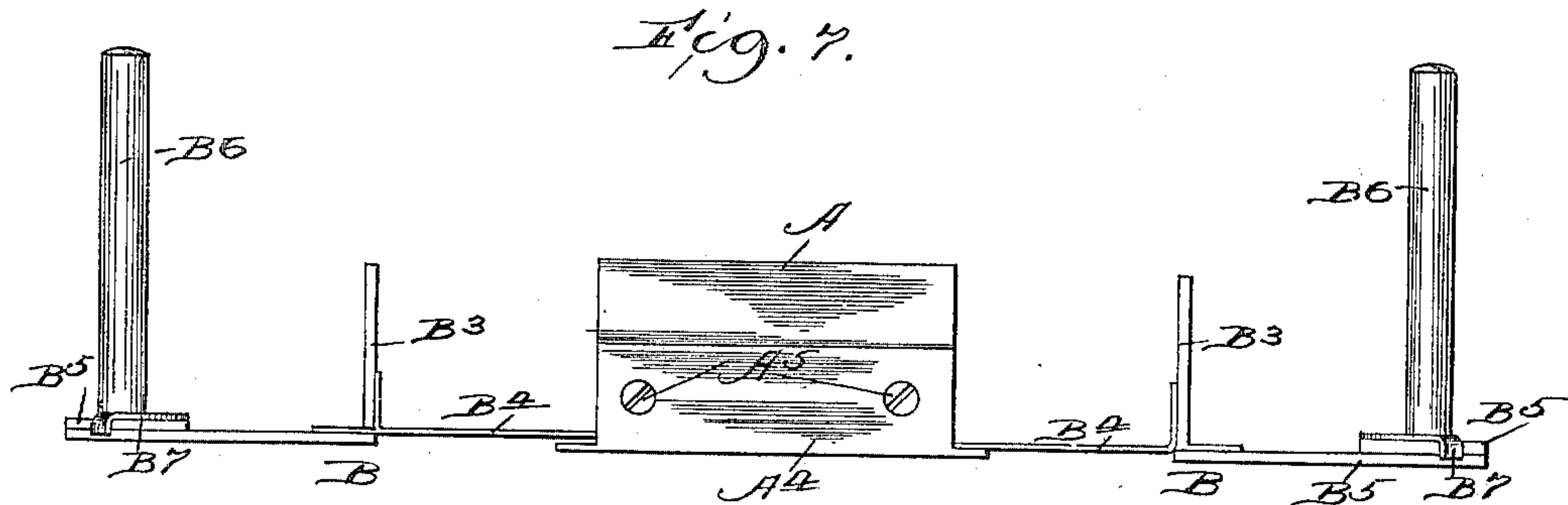
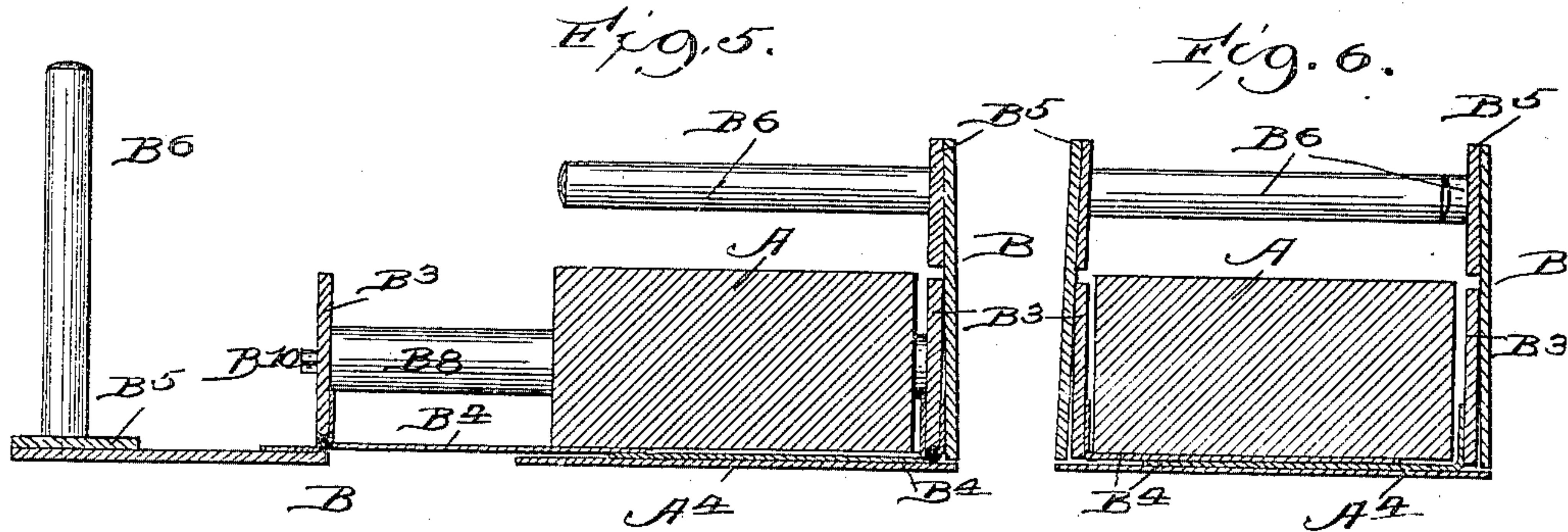
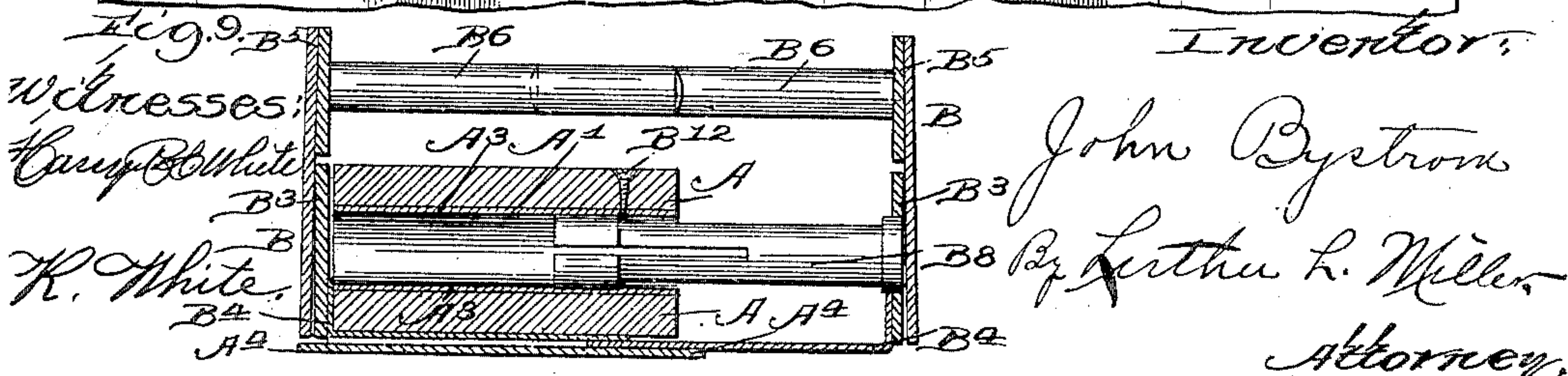
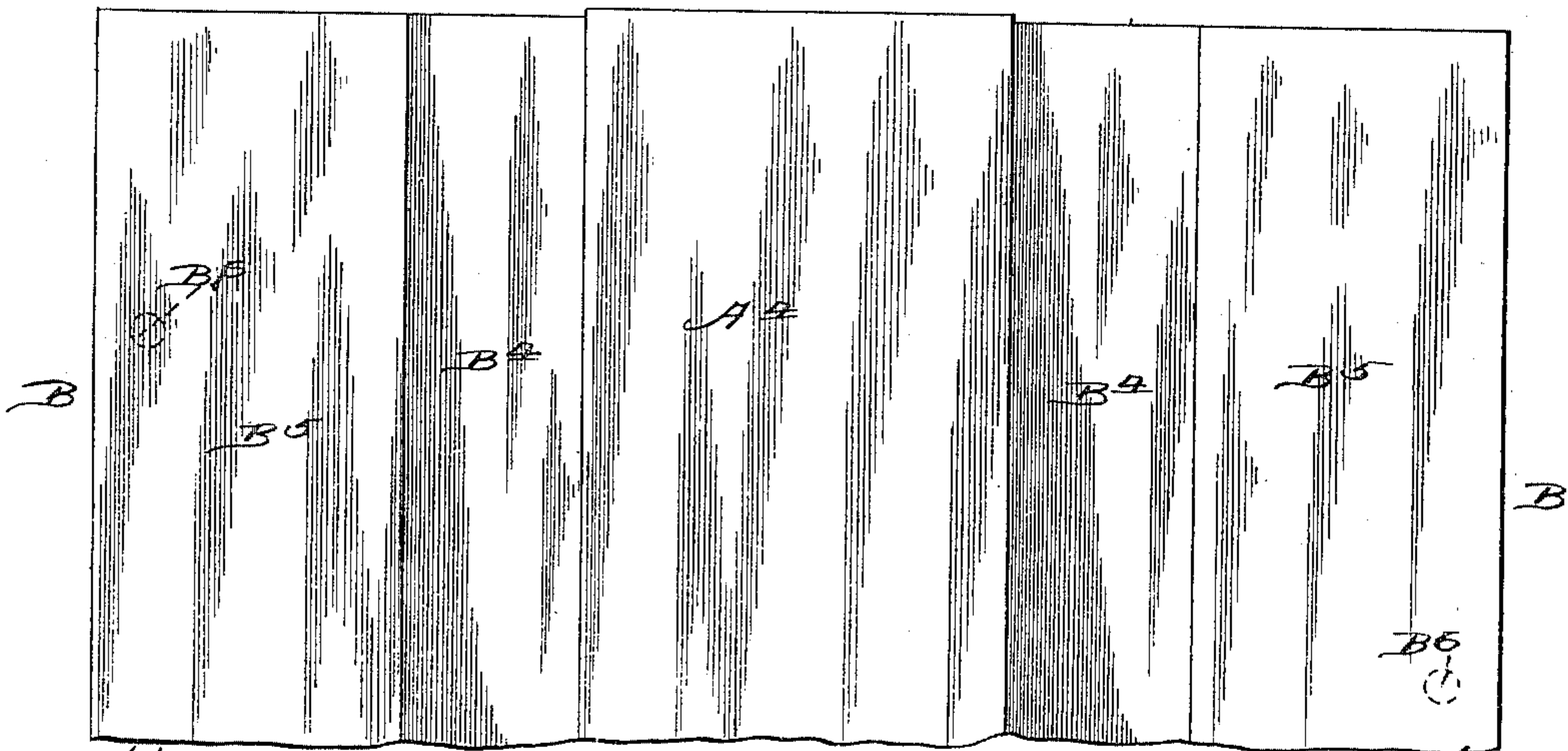


Fig. 8.



UNITED STATES PATENT OFFICE.

JOHN BYSTROM, OF CHICAGO, ILLINOIS.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 649,867, dated May 15, 1900.

Application filed February 26, 1900. Serial No. 6,512. (No model.)

To all whom it may concern:

Be it known that I, JOHN BYSTROM, 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.

This invention relates to improvements in temporary binders, and in the embodiment herein shown is in the form of a bound book containing a number of leaves, which number is capable of being increased or diminished and the relative arrangement of the leaves changed at the pleasure of the user.

In the accompanying drawings, Figure 1 is a face view of the body of the binder, showing the latter closed. Fig. 2 is likewise a face view, but with one side of the binder extended and one of its hinged wings turned downward to facilitate a change in the number or the arrangement of the leaves of the binder. Fig. 3 is a side view of the binder in the same position as in the preceding figure, but with leaves and a cover added. Fig. 4 is a transverse section through the back of the binder on dotted line 4 4 of Fig. 3. Fig. 5 is a transverse vertical section on dotted line 5 5 of Fig. 2. Fig. 6 is a transverse section on dotted line 6 6 of Fig. 4. Fig. 7 is an end elevation of the binder extended and opened. Fig. 8 is a rear view of the binder in the position indicated in the next preceding figure. Fig. 9 is a transverse vertical section through the binder on the axial line of one of the locking-studs. Fig. 10 is an enlarged sectional view of one of said locking-studs. Fig. 11 shows two detail views of the locking-latch for the hinged wings, and Fig. 12 is a view of the key for operating the locking device shown in Fig. 10.

Like letters of reference indicate corresponding parts throughout the several views.

In the production of this binder I provide the solid back piece A, transversely perforated at its side edges in the openings A' and A², all of said openings having the metallic lining-tubes A³ therein. The rear side of the back piece A has a covering A⁴, of sheet metal, bent over at the ends of the solid back piece A and secured to said back piece at each end thereof by the screws A⁵. This covering A⁴ is slightly wider than the back piece A and is secured

at a little distance therefrom in order to leave a space between said back piece and said covering for the reception of the extension back pieces to be later described herein. B are extension members for each side of said rigid back piece A, and these extension members are mounted upon the guide-pins B' and have a sliding movement relative to said back piece. The guide-pins B' are tubular, having in their interior recesses the coil-springs B², which being confined within the openings A² tend to force the extension members B outward from the rigid back piece A. These extension members B comprise the side bars B³, fixed to the outer ends of said guide-pins B', the extension back pieces B⁴, which overlie one another in the space between the rigid back piece A and its covering A⁴, and the side wings B⁵, having a hinged connection with the side bars B³ near the rear edges of the latter. These side wings B⁵ are reinforced in thickness at their forward edges in order that they may be flush at their inner surfaces with the inner faces of the side bars B³, and also that they may have sufficient thickness rigidly to support the holding-pins B⁶, set in said wings near their free edges and extending inward therefrom. Each of said hinged wings B⁵ carries on its inner face a pivoted latch B⁷, which latch is capable of being turned into engagement with the side bar B³, and thereby lock its supporting-wing in a position at right angles with the extension back pieces B⁴.

B⁸ is a locking-stud lying in each of the openings A' in the back A. One of these studs at its outer end is rigidly secured to each of the side bars B³. The forward end of the stud is split, and it is provided with an axial opening B⁹, tapering at its forward end and screw-threaded near its rear end. An expanding needle B¹⁰, pointed at its forward end and screw-threaded near its rear end, is adapted to enter the said axial opening B⁹ of the locking-stud B⁸. The rear end of the expanding needle B¹⁰ is provided with a square shank corresponding to the square socket-opening in the key B¹¹, with which it is adapted to be turned. When the point of the expanding needle engages the tapering portion of the locking-stud B⁸, it spreads the bifurcated forward end of said stud and causes it frictionally to engage the inner side of the lining-

tube A³ surrounding the locking-stud. Stop-screws B¹² engage the enlarged forward ends of the locking-studs B⁸ and limit the extent to which they may be withdrawn from the openings A'.

In use the leaves for the binder, properly perforated near their rear edges, are placed upon the holding-pins B⁶, the pins of either side having been turned upward to receive said leaves by releasing the latch B⁷ of the hinged wings B⁵ upon the side which it is desired to open. Either or both sides may be opened in this way, it being necessary that the sides be also extended in order to close the binder. Single leaves may be withdrawn by releasing the hold of both locking-studs B⁸ and spreading the extension members B the distance between the ends of the holding-pins of the different sides when the latter are extended, permitting the withdrawal of single leaves. The frame, which is shown in Figs. 1 and 2, in practice is covered with leather or other suitable materials, and covers like those of a bound book are supplied as a protection to the leaves.

I claim as my invention—

1. In a temporary binder, in combination, a rigid back portion having an opening therein; extension side members having a sliding engagement with said back portion; holding-pins carried by said extension members, for the leaves; and an expansion-stud for the opening in said back portion, for frictionally locking one of said extension members in position relative to said back portion.

2. In a temporary binder, in combination, a rigid back portion having openings therein; extension side members having pins rigidly affixed thereto, adapted to slide each within an opening in said back portion; holding-pins carried by said extension members, for the leaves; and expansion-studs affixed one to each of said extension members, which studs are adapted to enter each within an opening in said back portion, for frictionally locking the extension members in position relative to said back portion.

3. In a temporary binder, in combination, a rigid back portion having openings therein; a side bar having pins rigidly affixed thereto, adapted to slide within certain of the openings in said back portion; a wing hinged to said side bar, and having holding-pins for the leaves; and an expansion-stud fixed to said side bar, which stud is adapted to enter one of the openings in said back portion, for frictionally locking the side bar in position relative to said back portion.

4. In a temporary binder, in combination, a rigid back portion having openings therein; a side bar at each side of said back portion; pins fixed with relation to said side bars, adapted to slide within certain of the openings in said back portion; a wing for each of

said side bars, having a pivotal engagement therewith; holding-pins on each of said wings, for the leaves; and expansion-studs fixed one to each of said side bars, each of which studs is adapted to enter one of the openings in said back portion, for frictionally locking the side bars in position relative to said back portion.

5. In a temporary binder, in combination, a rigid back portion having openings therein; side bars at each side of said back portion; pins rigidly fixed to said side bars, and adapted to slide each within an opening in said back portion; a sliding extension-back for each of said side bars, rigidly fixed thereto; a wing for each of said side bars, having a pivotal engagement therewith; holding-pins on each of said wings, for the leaves; and expansion-studs fixed one to each of said side bars, each of which studs is adapted to enter one of the openings in said back portion, for frictionally locking the side bars in position relative to said back portion.

6. In a temporary binder, in combination, a rigid back portion having openings therein; a side bar at each side of said back portion; pins fixed with relation to said side bars, adapted to slide each within an opening in said back portion; a wing for each of said side bars, having a pivotal engagement therewith; holding-pins on each of said wings, for the leaves; a latch for each of said wings, having a pivotal engagement therewith, and adapted to engage said side bars; expansion-studs fixed one to each of said side bars, each of which studs is adapted to enter one of the openings in said back portion, for frictionally locking said side bars in position relative to said back portion; and a stop for limiting the outward movement of the side bars.

7. In a temporary binder, in combination, a rigid back portion having a rear cover, and openings in said back portion, which openings are provided with metallic lining-tubes; side bars at each side of said back portion; pins rigidly fixed to said side bars, and adapted to slide each within an opening in said back portion; springs in said openings; a back for each of said side bars, rigidly fixed thereto, which backs overlie each other between the back portion and its rear cover; a wing for each of said side bars, having a pivotal engagement therewith; holding-pins on each of said wings, for the leaves; and expansion-studs fixed one to each of said side bars, each of which studs is adapted to enter one of the openings in said back portion, for frictionally locking the side bars in position relative to said back portion.

JOHN BYSTROM.

Witnesses:

L. L. MILLER,
GEO. L. CHINDAHL.