

No. 887,462.

PATENTED MAY 12, 1908.

A. E. CHATTERSON.
LOOSE LEAF BINDER.
APPLICATION FILED JULY 31, 1907.

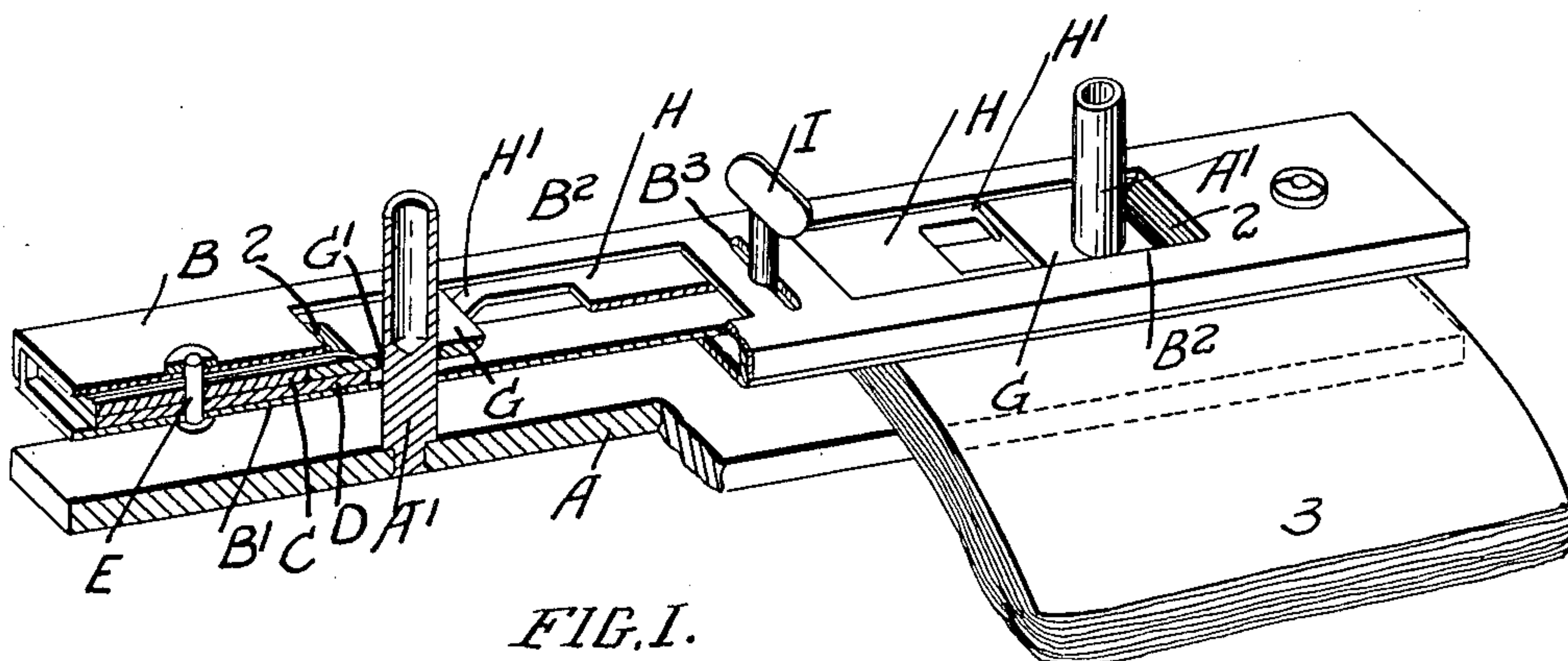


FIG. 1.

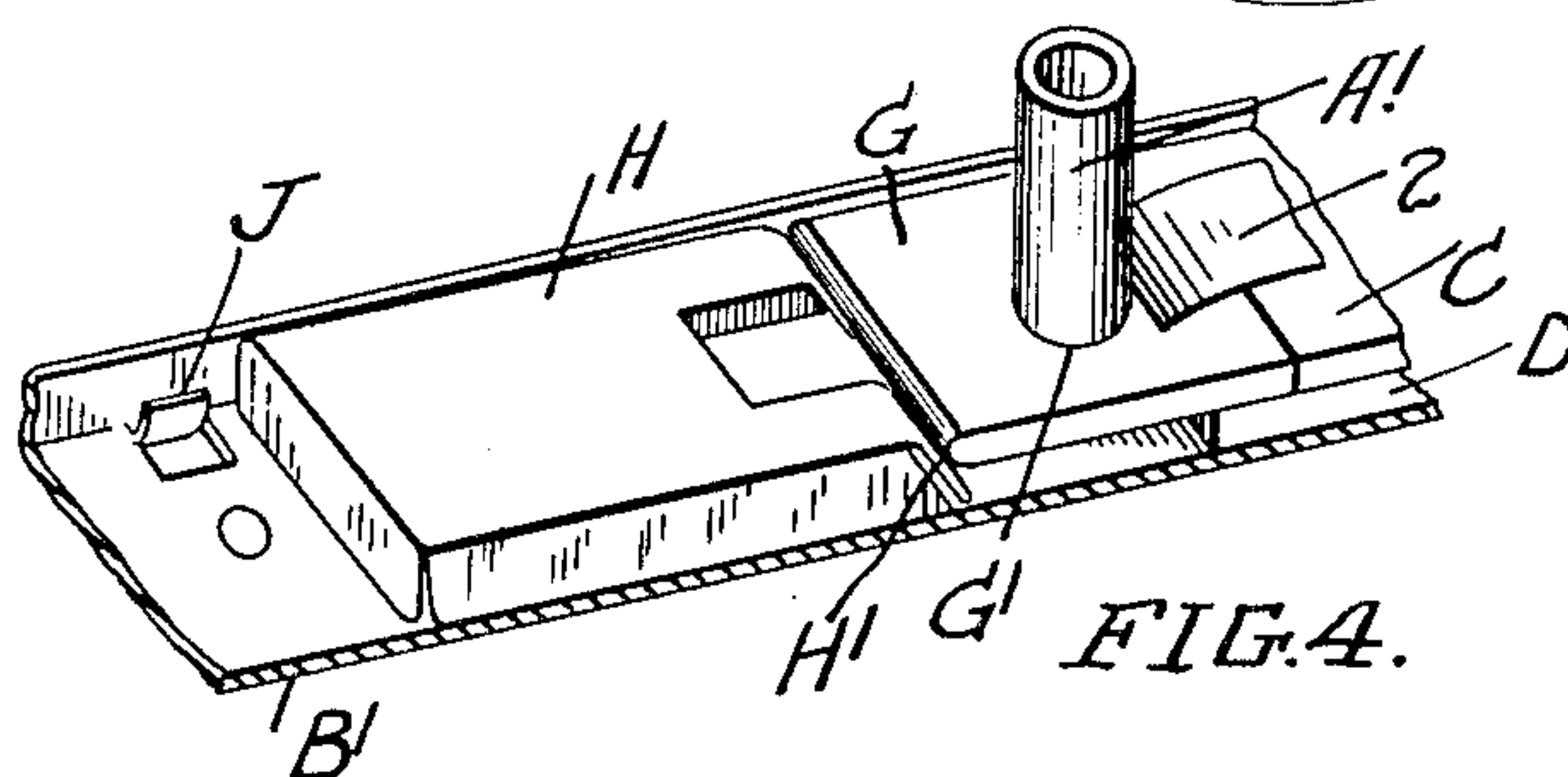


FIG. 4.

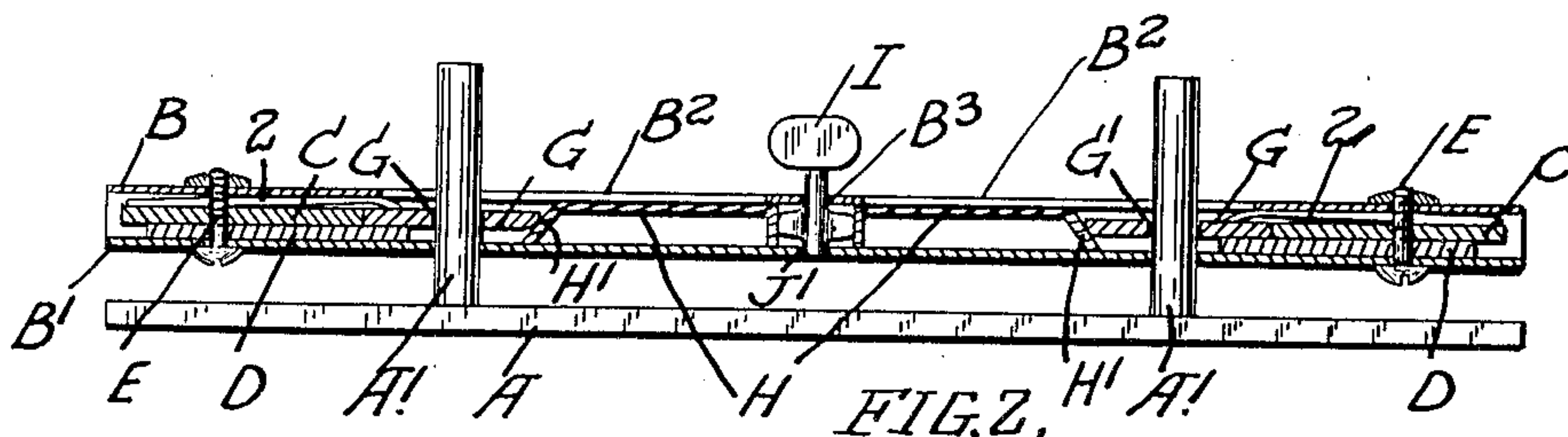


FIG. 2.

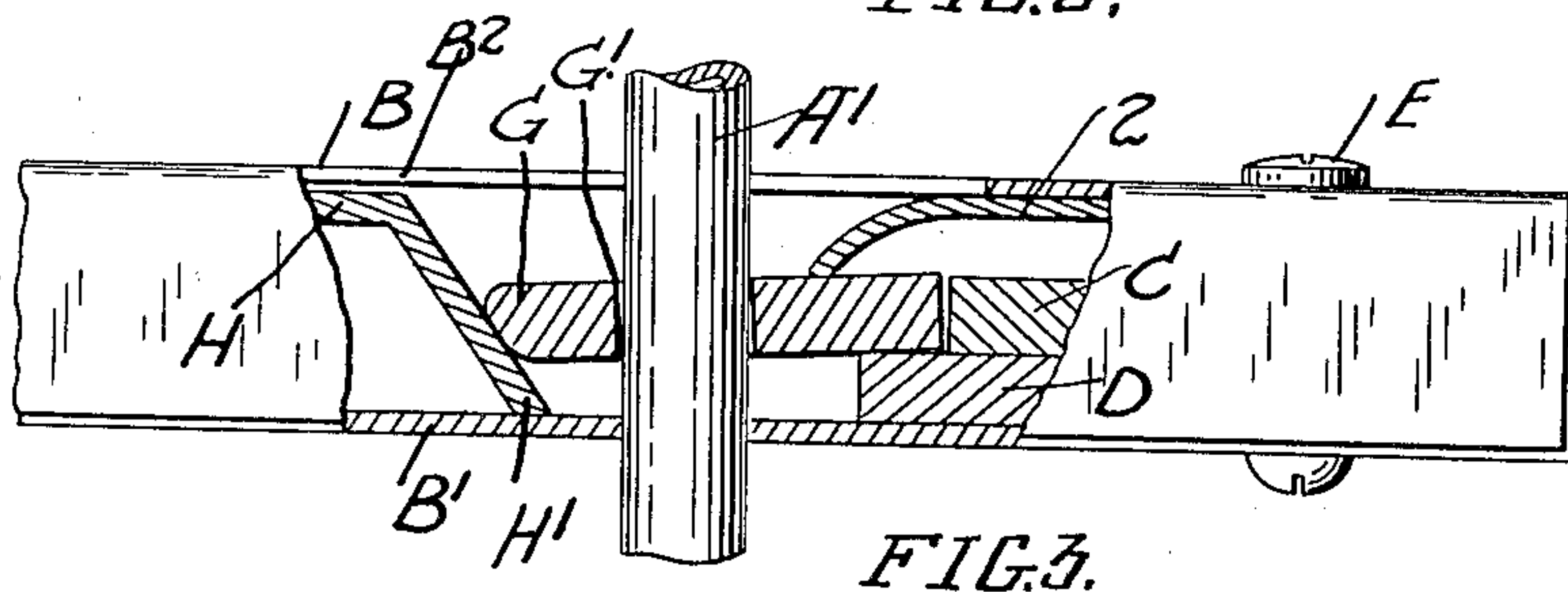


FIG. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

ALBERT EDWY CHATTERSON, OF TORONTO, ONTARIO, CANADA.

LOOSE-LEAF BINDER.

No. 887,462.

Specification of Letters Patent.

Patented May 12, 1908.

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To all whom it may concern:

Be it known that I, ALBERT EDWY CHATTERSON, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is the specification.

My invention relates to improvements in loose leaf binders, in which stationary posts are used and extend through perforations in the sheets, and the object of the invention is to devise a cheap, durable, effective and positive form of binder, which will bind and lock when bound any predetermined quantity of leaves and will allow of leaves being added periodically without any liability of the locking device springing back or rebounding, and thus insure leaves being firmly and securely bound no matter in what quantity they may be within certain limits.

A further object is to make the binder of such a nature that the posts will not be deleteriously effected by the locking grip and yet the grip perfectly secure.

A still further object is to insure that the lock device grips both posts regardless of the thickness of the sheets contained in the binder.

To effect these objects I have constructed the post plate in the usual manner and the locking device used in connection therewith of a top and bottom plate, both U-shape in cross section and one inverted to fit over the other, end plates held between the top and bottom plates by connecting bolts, the upper plate being shorter than the lower plate, locking plates each provided with a hole through which a post extends, the plates resting on the longer end plate and being spring-held, and the inner ends of the plates being beveled from below, actuating plates having the co-acting ends beveled from above and abutting the beveled ends of the locking plates and a key inserted through the key slot in the upper plate and having a double ward, whereby both actuating plates are simultaneously operated to throw the locking plates against the post, the parts being arranged and constructed in detail as hereinafter more particularly explained.

Figure 1, is a perspective view of my binder partially in section and showing the leaves in perspective section also to exhibit the parts involved in my invention. Fig. 2, is a side elevation showing the locking device in longitudinal section. Fig. 3, is an enlarged

detail of one end of the locking device being mostly in section. Fig. 4, is a detail view.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the bottom plate of the binder and A' the posts, which are suitably riveted therein and extend vertically upwardly therefrom and are located at desired distances apart. My locking device consists of the upper and lower plates B and B', which are U-shape in cross section. The upper plate is inverted and straddles the lower plate, one being of greater width than the latter.

C and D are the end plates fitting between the plates B. The lower end plate projects inwardly farther than the upper end plate and the plates B B' C and D are all secured together by the bolts E.

G are locking plates having holes G' of a slightly greater diameter than the posts A'. The outer ends of the locking plates normally rest upon the inner ends of the plates D and abut the plate C. The inner ends of the plates G are beveled.

2 are springs through which the bolts E also extend, the ends of the springs being curved and resting upon the plate G and designed to hold such plate in binding position. The upper plate B is preferably provided with open recesses B² and a slot B³ between them.

H H are two plates located one on each side of the key slot and being preferably bent up for the sake of lightness of metal in the form shown, the inner end being vertical and the outer end being beveled at H'.

I is the key, which is provided with a double ward. The form of the wards may be any desired form, so that the key may be manipulated.

J is a stop formed up out of the bottom plate D' and designed to obviate the plates H abutting each other and thus prevent the insertion of the key.

J' is the bottom hole for the key stem to fit in.

The locking device is securely held in position by the springs 2 pressing downwardly upon the plates G and canting them to the inclined position shown in Fig. 3, thus causing the upper edge at the inside and the lower edge at the outside of the hole G' to grip on the post A' and I find in practice securely hold the locking device in position and the sheets 3 close together.

In order to unlock the sheets and allow of

the locking device being removed a key I is inserted, which is turned into the position shown in Figs. 1 and 2, so that the wards extend rearwardly of the locking device and thereby force the beveled ends of the plates H underneath the beveled ends of the plates G, thus raising the latter plates to the horizontal and thereby allowing the holes G' to be free on the posts A¹, and thus allow of the locking device being moved freely up and down on the posts or taken off the posts as desired.

Such a binder as I describe with the locking device aforesaid insures of the sheets being securely clamped together and this too without any marring of the posts and the consequent liability of sticking or uncertain adjustment of the locking device relative to the posts.

What I claim as my invention is:

1. The combination with the bottom plate and posts, of a locking device comprising two plates U-shape in cross section and fitting one over the other, end plates held therein, the lowermost projecting inwardly beyond the others, locking plates having holes through which the posts freely extend, springs held above the end plates and adapted to press on to the top of the locking plates and means for raising the locking plates to the horizontal position, so as to allow of the posts to pass freely therethrough as and for the purpose specified.

2. The combination with the bottom plate

and posts, of a locking device comprising two plates U-shape in cross section and fitting one over the other, end plates held therein, the lowermost projecting inwardly beyond the others, locking plates having holes through which the posts extend and beveled inner edges, springs held above the end plates and adapted to press on to the top of the locking plates, plates having reversely formed beveled ends to the locking plates and adapted to abut the beveled edges of the locking plates and means for throwing the plates outwardly simultaneously as and for the purpose specified.

3. The combination with the bottom plate and posts, of a locking device comprising two plates U-shape in cross section and fitting one over the other, end plates held therein, the lowermost projecting inwardly beyond the others, locking plates having holes through which the posts extend and beveled inner edges, springs held above the end plates and adapted to press on to the top of the locking plates, plates having reversely formed beveled ends to those on the locking plates and adapted to abut the beveled edges of the locking plates, and a key with a double ward extending through the slot in the top of the locking device as and for the purpose specified.

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Witnesses:

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