

T. R. EDDY.
 LOOSE LEAF BINDER.
 APPLICATION FILED SEPT. 20, 1910.

985,403.

Patented Feb. 28, 1911.

Fig. 1.

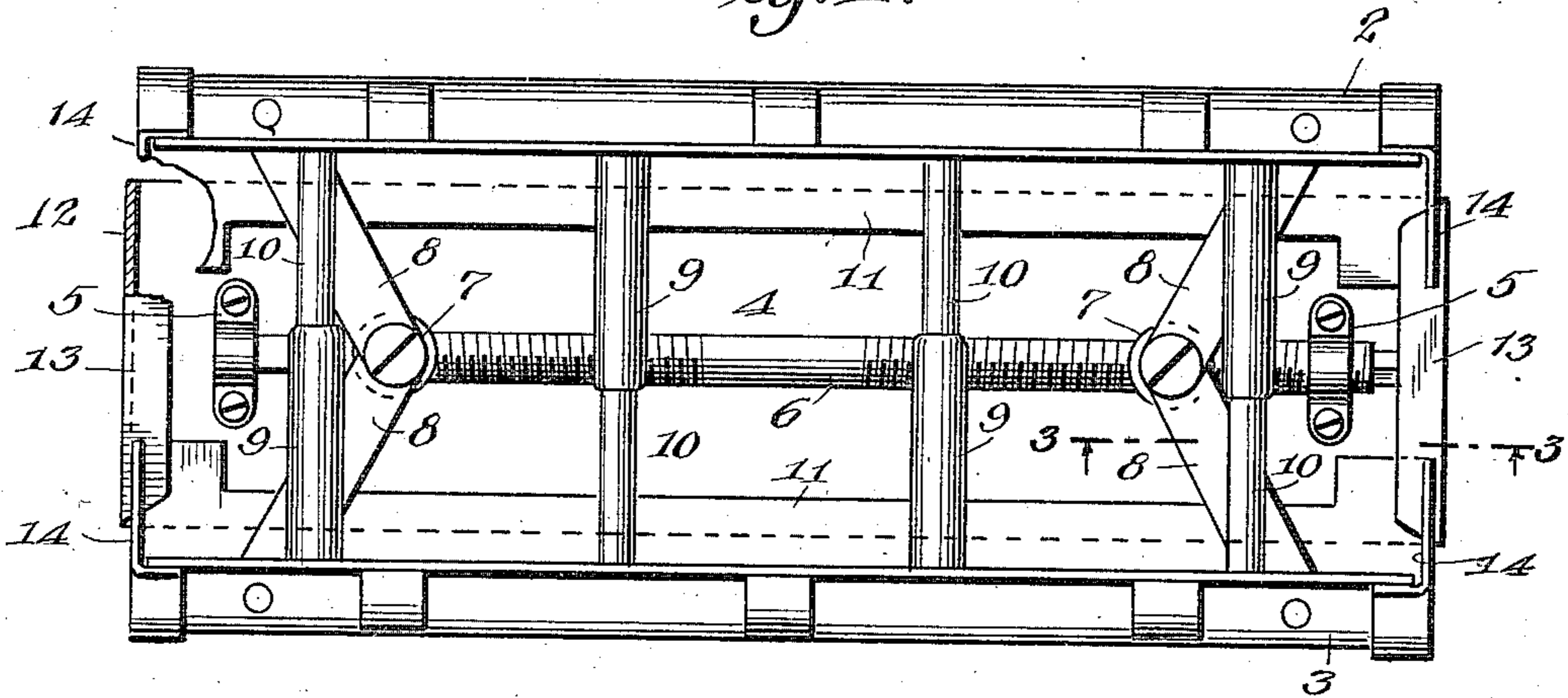


Fig. 2.

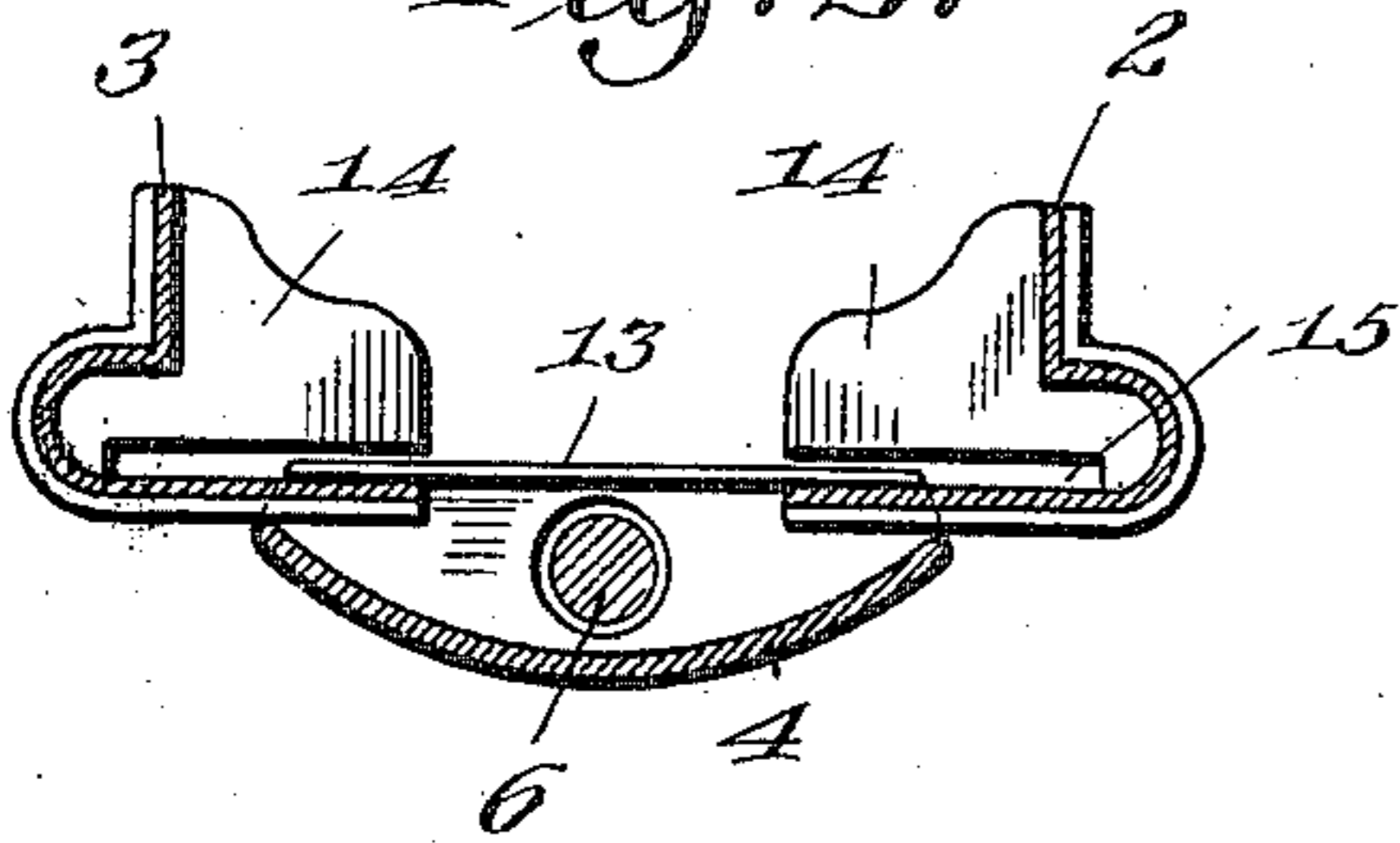


Fig. 3.

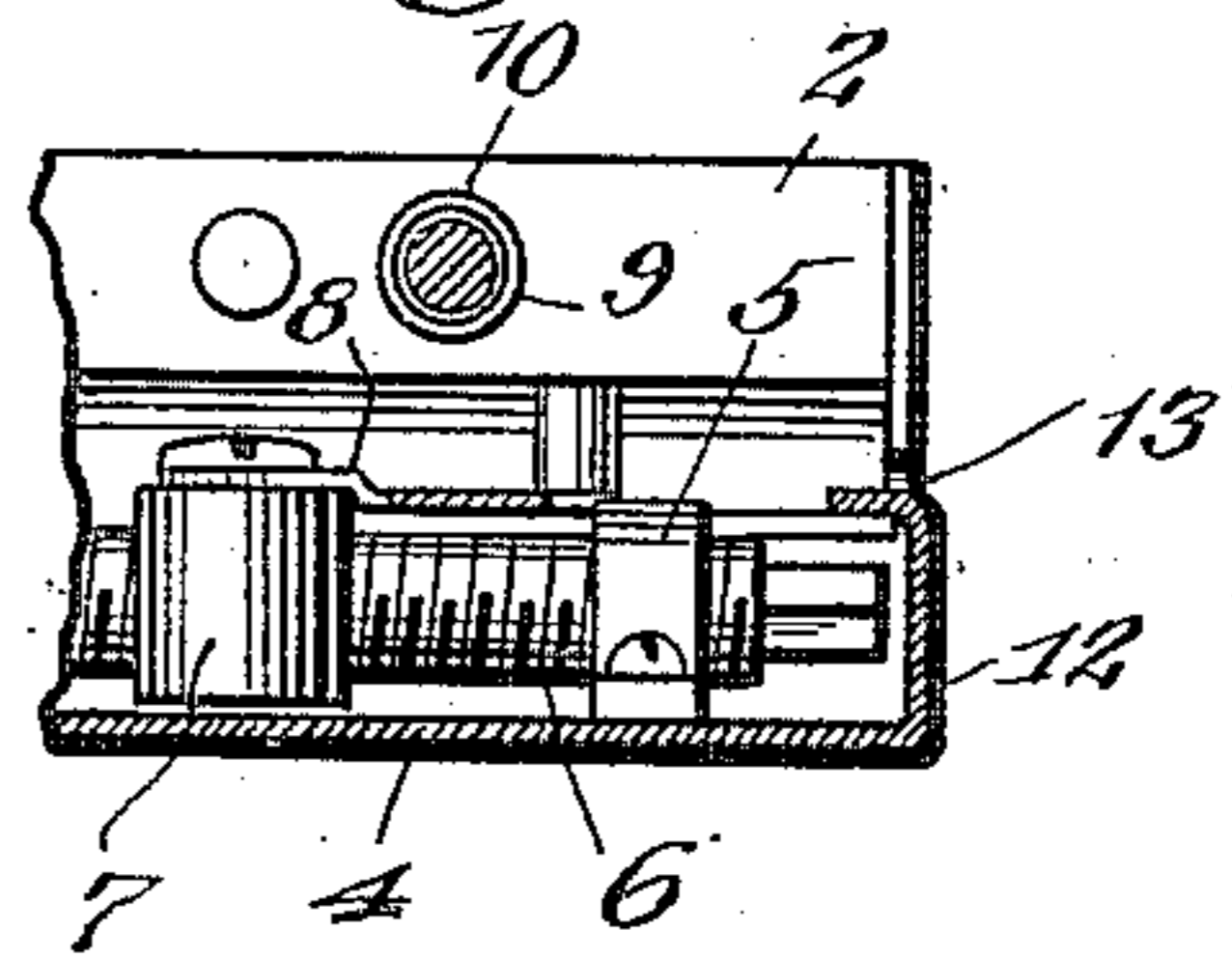


Fig. 4.

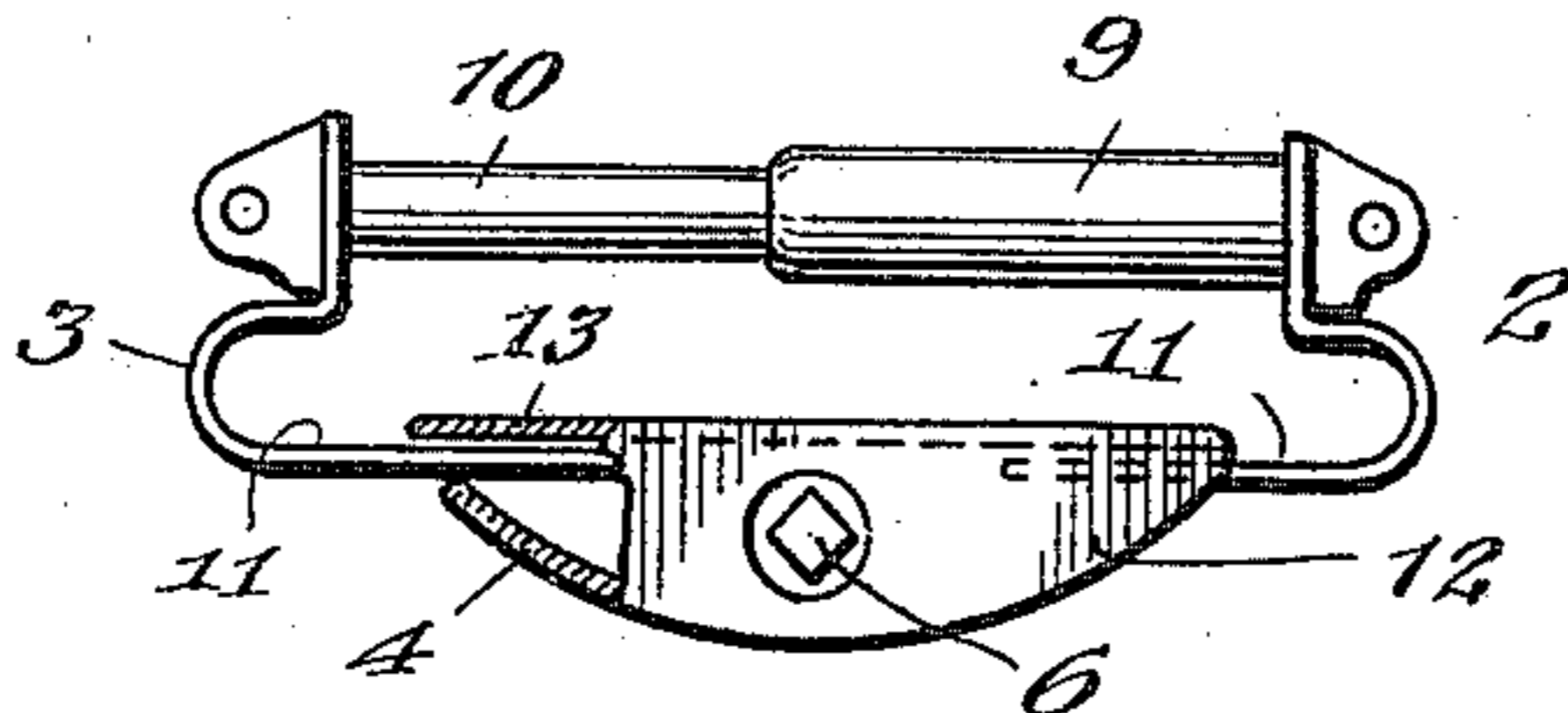
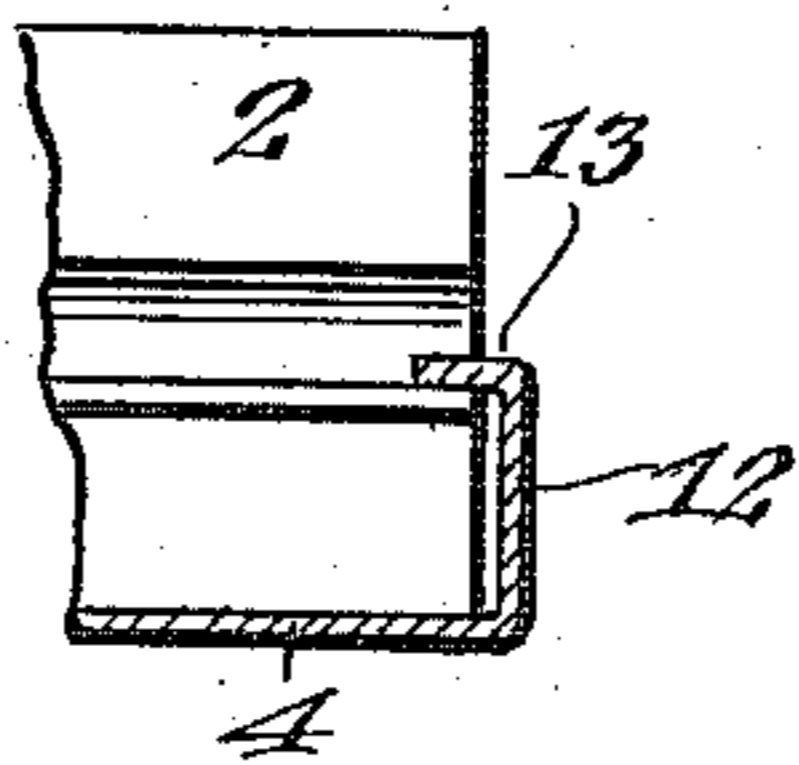


Fig. 5.



WITNESSES

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LOOSE-LEAF BINDER.

985,403.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS R. EDDY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

This invention relates to loose-leaf or temporary binders, particularly of that class known as loose-leaf ledger binders, the object of the invention being to provide an improved binder comparatively simple in construction and operation and inexpensive to manufacture, and which will be reinforced in an improved manner.

In the drawings accompanying and forming part of this specification, Figure 1 is a top view, partly broken away, of this improved loose-leaf ledger binder; Fig. 2 is a cross sectional view thereof taken in line 2—2, Fig. 1, looking toward the end; Fig. 3 is a transverse sectional view of a part of the end of the binder, taken in line 3—3, Fig. 1; and Figs. 4 and 5 are detail views illustrating the present improvement as applied to a binder without the end plates of the clamping members.

Similar characters of reference indicate corresponding parts throughout the figures of the drawings.

This improved binder comprises a back made up of a pair of substantially L-shaped reciprocating clamping or side members 2 and 3 and a supporting or back plate 4, usually of curved formation. The back plate is provided with ears or lugs 5 for the reception of an operating rod 6 having right and left hand threads carrying threaded nuts 7 to each of which is pivoted a pair of toggle levers 8, the opposite ends of which are pivoted to the clamping plates 2 and 3. These clamping plates are provided alternately with a horizontally extending tube 9 and a rod 10, the tubes of the clamping plate on one side being adapted to receive the rods on the clamping plate on the opposite side, and the rod 6 being adapted to be turned by a key. These rods and tubes are for the reception of the leaves of the book in the usual manner.

It will be observed that the lower horizontal members 11 of the L-shaped side or clamping plates are located to move above the upper edges of the curved back member

or plate 4, and heretofore it has been the practice to connect these side clamping members by bridges or supports in order to stiffen and reinforce the structure. The object of the present improvement, however, is to do away with this bridging, which has heretofore been necessary, and to properly guide the clamping plates as well as reinforce and stiffen the structure through the medium of the ends of the back member, and for this purpose it will be observed that the back is provided at each end thereof with an upstanding portion or plate 12 having an inturned flange 13 adapted to project over the horizontal portions of the L-shaped clamping plates and so guide the same in their movement to and fro through the medium of the threaded rod. This overturned edge or flange also reinforces the structure and prevents unnecessary play of the clamping plates. In the preferred form thereof, however, it will be observed that each of the clamping plates is provided at each end thereof with an end plate 14, having adjacent to its bottom and just above the horizontal members of the clamping plates a slot 15 in which the overturned or flanged portion of the end plates of the back member extend, thus materially reinforcing as well as effectively guiding the clamping plates in their reciprocatory movement through the medium of the threaded rod, in a manner which will be readily understood.

Heretofore, in order to properly guide the side clamping members, it has been necessary, as stated, to use bridge plates located between the ends of the back, and these bridge plates either had to be riveted to the back or screwed thereto so that the clamping plates would be properly guided. When riveted the structure was apt to be too stiff, as the bridge plates would be secured too tight to the back member, and when the bridge plates were secured by screws these tended to work loose; so that, aside from the cost of manufacturing the structure in this manner, there were several disadvantages in using this style of bridge plate. By means of the present improvement, however, the expense of manufacture is reduced, while a much more durable means is provided for guiding the side clamping plates, as the present improved means prevents improper play or looseness of the side plates, which was frequently the case

when bridge plates were used screwed to the back plate. By means of the present improvement also the end portions or plates of the back plate may be formed integral with such plates, so that the inturned flanges or portions may be made all in one piece with the back plate.

I claim as my invention:

1. In a binder, the combination of a pair of movable side members and a back member, said side members having end plates, said end plates and back member having at the ends of said back member co-acting means for guiding the side members, comprising slots and inturned flanges working therein.

2. In a binder, the combination of a pair of movable side members and a back member, said side members having end plates provided with slots and the back member having an inturned flange located in said slots.

3. In a binder, the combination of a pair of movable side clamping members having inwardly extending horizontal bottom portions, and a back member located below said bottom portions and having at each end an upstanding plate terminating at the ends of said horizontal bottom portions and provided with an inturned flange overlapping said bottom portions of the clamping mem-

bers for guiding the same, said back plate carrying means for operating said clamping members.

4. In a binder, the combination of a pair of L-shaped movable side members, and a curved back member located below the horizontal portions of the movable side members, said back member having integral ends each having an inturned flange overlapping the horizontal portions of the side movable members and said side movable members having end plates extending over the flanges of the back member and forming slots between portions of the side movable members for such back member flange.

5. In a binder, the combination of a pair of movable side clamping members, and a back member located below said side clamping members and having at each end an upstanding plate provided with an inturned flange overlapping a portion of the ends of said side clamping members, and said clamping members each having at each end an end plate with a part of each overlapping said inturned flange whereby the said members are guided by the flange.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."