

T. BRAZIL-DINEEN.
LOOSE LEAF BINDER.
APPLICATION FILED DEC. 15, 1909.

956,278.

Patented Apr. 26, 1910.

Fig. 1

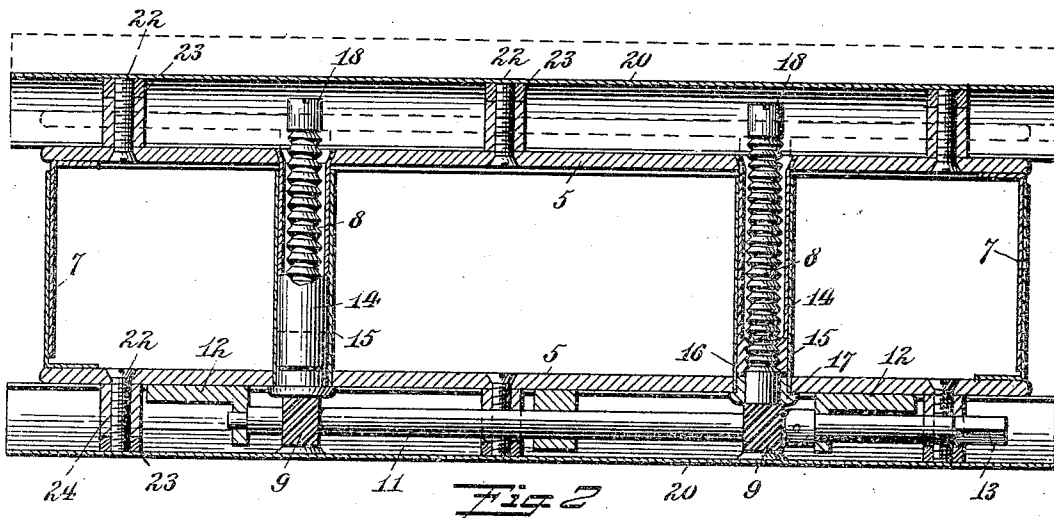
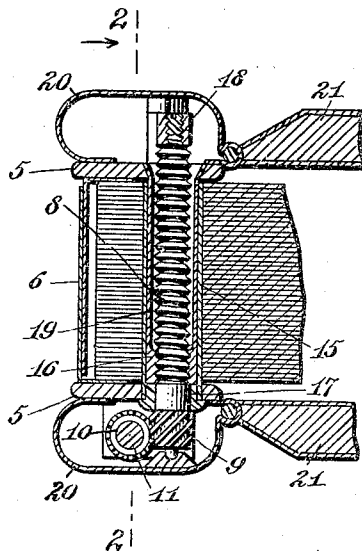


Fig. 2

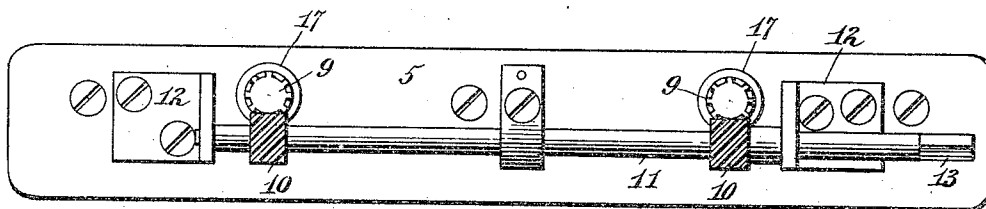


Fig. 3

WITNESSES
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UNITED STATES PATENT OFFICE.

THOMAS BRAZIL-DINEEN, OF MILSON'S POINT, NORTH SYDNEY, NEW SOUTH WALES, AUSTRALIA.

LOOSE-LEAF BINDER.

956,278.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed December 15, 1909. Serial No. 533,314.

To all whom it may concern:

Be it known that I, THOMAS BRAZIL-DINEEN, a subject of the King of Great Britain, and a resident of Milson's Point, North Sydney, New South Wales, Australia, have invented a new and Improved Loose-Leaf Binder, of which the following is a full, clear, and exact description.

The invention is an improvement in loose leaf binders, and has in view a construction embodying a box case or frame of two telescoping sections, screws for moving the two sections to and from each other to clamp and release the leaves, and an operating shaft operatively connected to the screws, each screw being preferably incased in telescoping thimbles respectively carried by the opposite sides of the case or leaf binding plates of the binder, and arranged to be received in notches formed in the edges of the leaves when the latter are inserted in binding position between the said plates.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a cross-section through a loose leaf binder embodying my invention, showing the binder applied to a ledger; Fig. 2 is a longitudinal section through the same, on the line 2—2 in Fig. 1; and Fig. 3 is a side view of the binder.

In carrying out my invention I provide a box case or frame of two telescoping sections, each section comprising a side 5, serving as one of the leaf binding plates, a back 6 and ends 7, leaving the case open at the front, the ends and back being preferably constructed of sheet metal and secured to the side or leaf binding plates, insuring a relatively light construction. For moving the box sections to and from each other in clamping and releasing the leaves are screws 8, each screw having an attached spiral gear 9 at the outer side of one of the plates, in mesh with a like gear 10 secured to an operating shaft 11, the operating shaft being journaled in brackets 12 secured to the adjacent side of the case and extending to one end of the binder, where it is provided with an angular wrench-engaging portion 13. The screws 8 are each incased in telescoping thimbles 14 and 15 respectively, with the thimble 14 expanded into that leaf binding

plate of the case farthest removed from the operating shaft and having a nut 16 at its end, in which the screw 8 is threaded. The thimble 15 is secured to a plug 17, in which the screw is journaled, the plug being secured to the opposite leaf binding plate or side of the case. To prevent the complete separation of the two sections of the case, the threaded end of each screw 8 carries a nut 18, preferably of cylindrical form to pass freely within the thimble 14 when the leaf binding plates are spread apart. The screws 8 and their incasing thimbles are arranged to be received in notches 19 formed in the edges of the leaves when the latter are inserted in binding position between the plates 5.

In Fig. 1, I have shown the binder applied to a ledger, the latter comprising casings 20 and covers 21, the casings being secured to the binding plates and inclosing the actuating mechanism arranged at the outside of the box sections. Each casing is bent at its inner longitudinal edge to form a tubular hinge member to which the other member formed on one of the covers 21 is connected. By this manner of assembling the binder with the ledger, the back of the ledger is formed by the telescoping back of the case, and one of the casings 20 serves to carry bearings in which the extremities of the screws 8 are journaled, as best shown in Fig. 1. The casings 20 are supported near the center at points along their length from the leaf binding plates 5, by screws 22 which pass through the leaf binding plates and have nuts 23 bearing on the inner side of the casing, the nuts binding on thimbles 24 arranged on the bodies of the screws, as indicated in Fig. 2.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. The combination in a loose leaf binder, of a case in two telescoping sections, the sections having opposed clamping plates, with telescoping thimbles extending from the said plates, the inner of each of the said thimbles having a nut, screws journaled in the outer ends of the outer thimbles and threaded into the said nuts, and means to simultaneously actuate the screws.

2. The combination in a loose leaf binder, of a case in two telescoping sections, each section having an opposed clamping plate,

means to move the two sections of the case to and from each other, a casing arranged at the outer side of each clamping plate, each having at its inner longitudinal edge a tubular hinge member, and leaves having hinge members at their inner edges, respectively connected to the hinge members of the casing.

In testimony whereof I have signed my name to this specification in the presence 10 of two subscribing witnesses.

THOMAS BRAZIL-DINEEN.

Witnesses:

W. HERBERT FRIEND,
C. E. JONES.