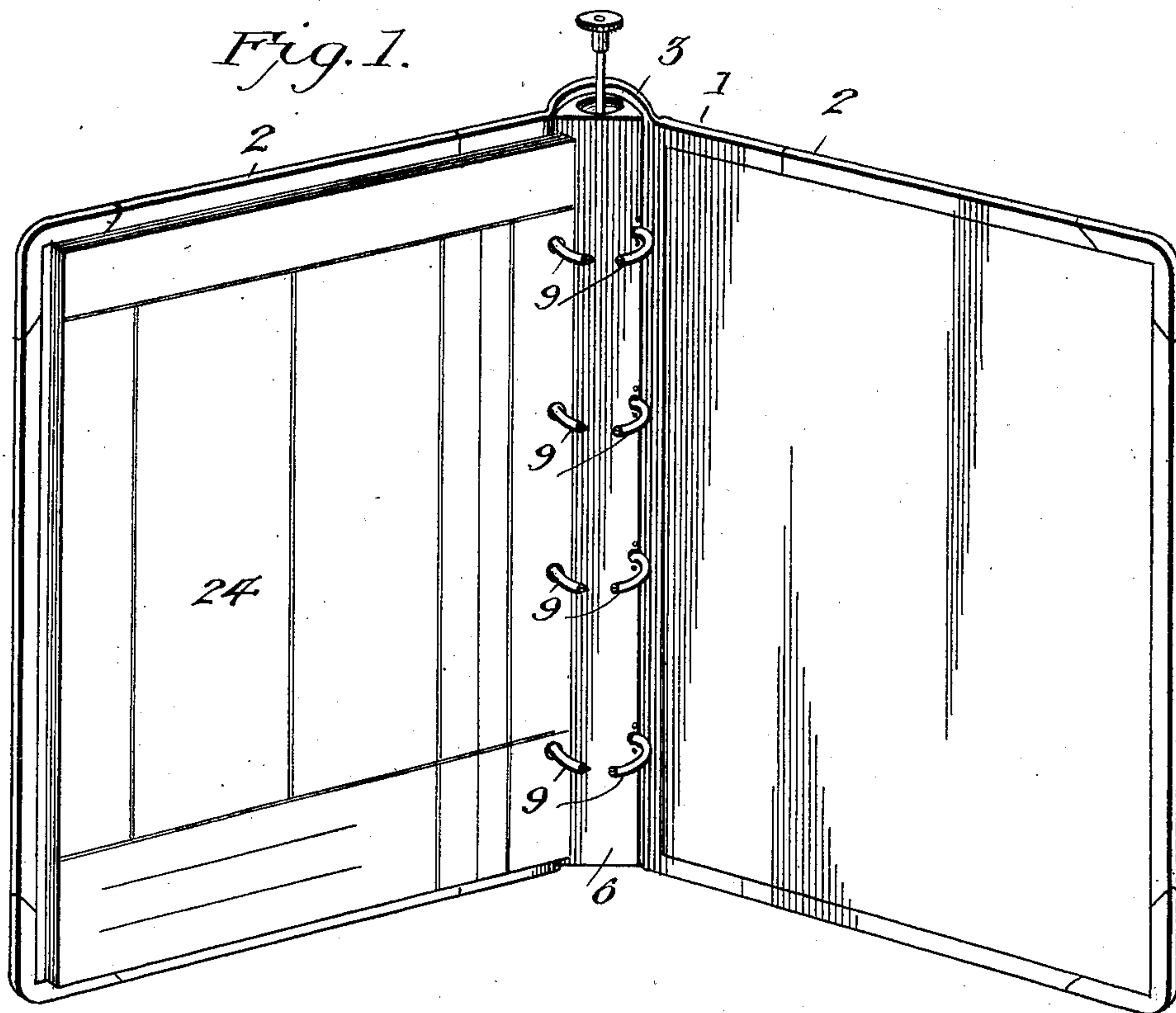


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 LOOSE LEAF LEDGER.  
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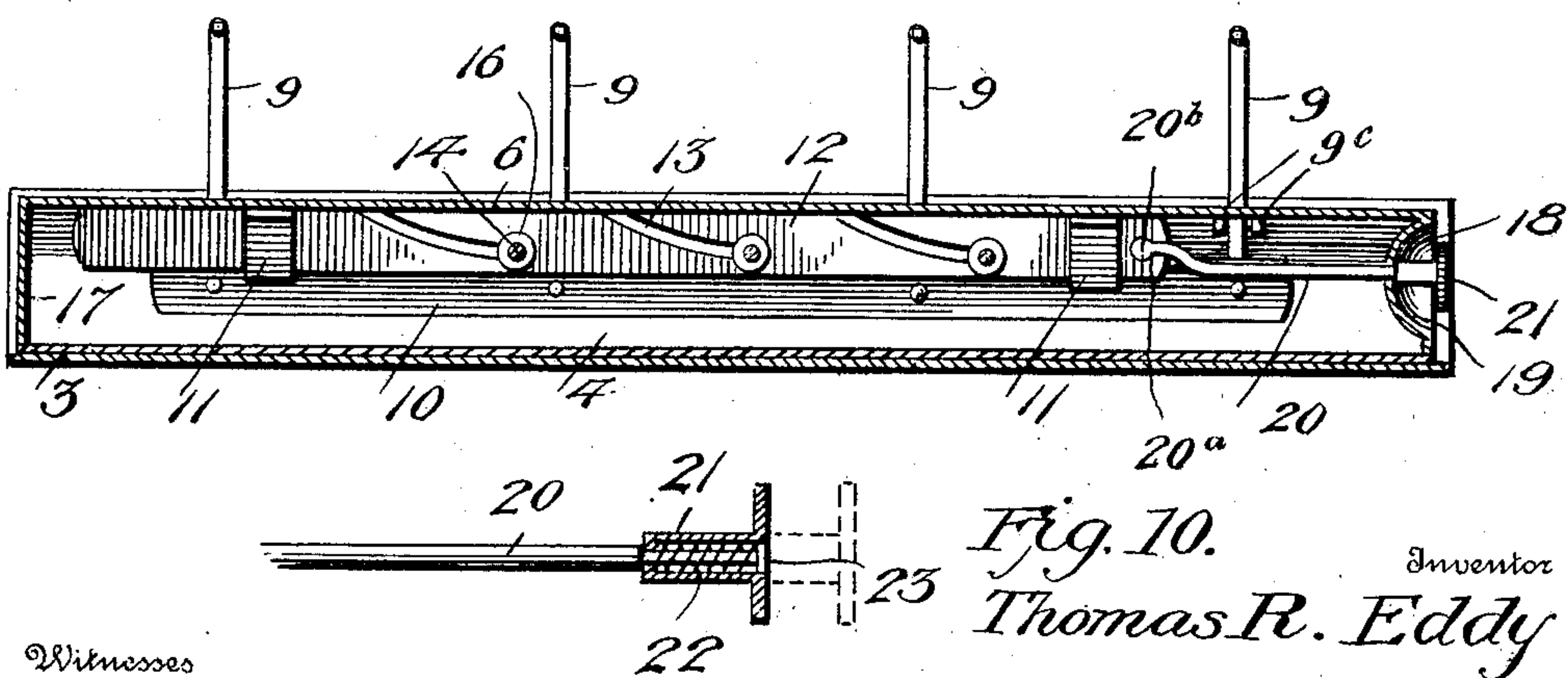
924,647.

Patented June 15, 1909.

2 SHEETS—SHEET 1.



*Fig. 2.*



Witnesses

*Geo. Ackerman Jr.*  
*John H. Byrne*

By

*Thomas R. Eddy*  
 Inventor

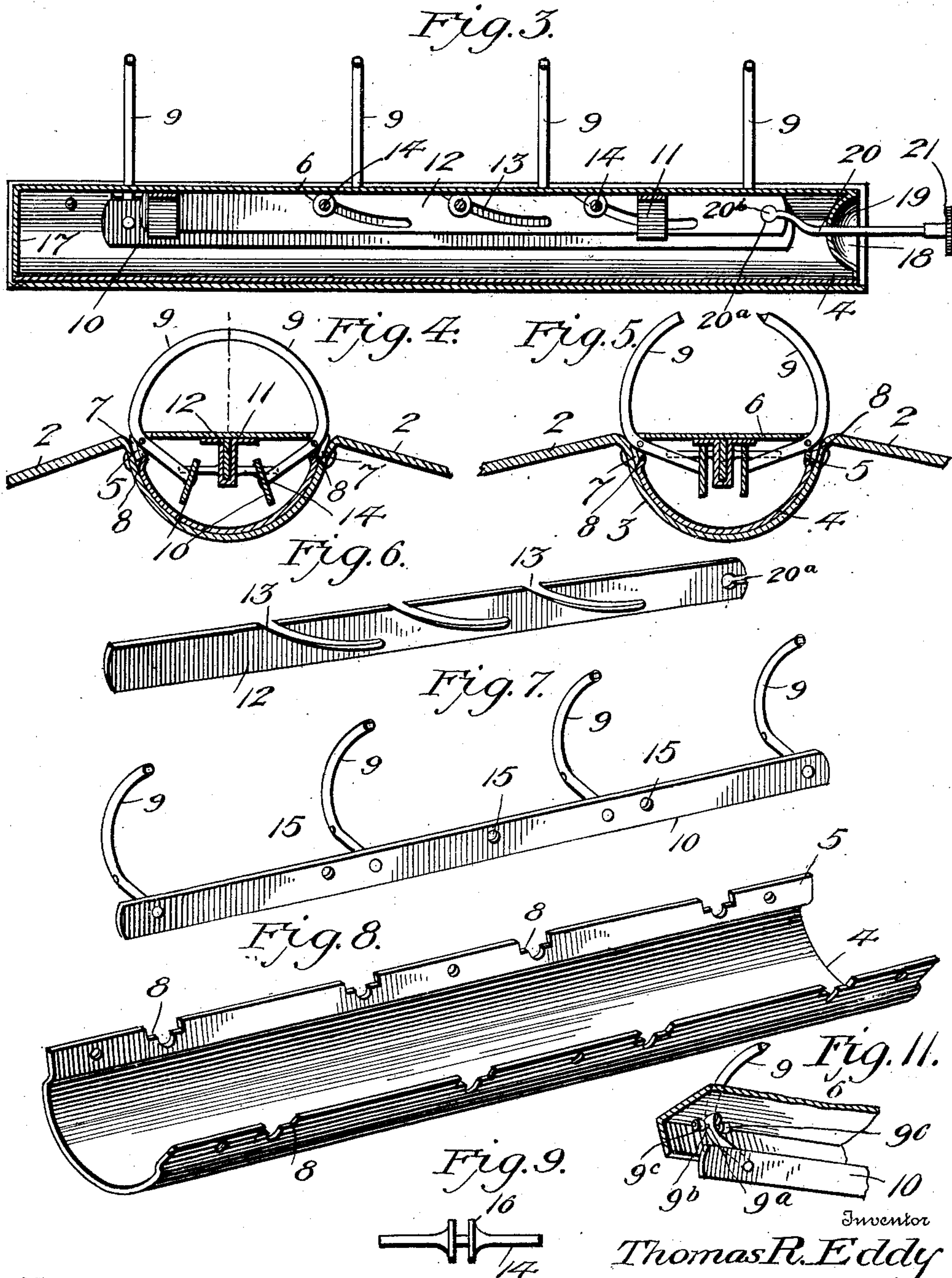
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Witnesses  
 Geo. Ackerman  
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Thomas R. Eddy  
 By Victor J. Evans  
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# UNITED STATES PATENT OFFICE.

THOMAS R. EDDY, OF CHICAGO, ILLINOIS.

## LOOSE-LEAF LEDGER.

No. 924,647.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed March 3, 1904. Serial No. 196,349.

*To all whom it may concern:*

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

My invention relates to temporary binders or loose leaf ledgers, and its primary object is to provide a new and useful device of this character in which the securing pins are adapted to be simultaneously opened or closed to permit of the ready application or removal of the leaves, and also to secure them in applied position against accidental displacement.

A further object of the invention is to provide novel means for simultaneously opening or closing the securing pins, and which will be composed of few parts so arranged as not to be liable to become inoperative.

A still further object of the invention is to provide a device of the above stated character which shall be cheap to manufacture, durable and efficient.

The invention consists in the construction, combination and arrangement of parts hereinafter fully described, claimed and illustrated in the accompanying drawings, which disclose the preferred form of my invention, and in which:—

Figure 1 is a perspective view of a temporary binder or loose leaf ledger constructed in accordance with my invention, the same being illustrated with the sections of the cover thrown open and showing the securing pins in open position to permit of the application and removal of the leaves; Fig. 2 is a central longitudinal sectional view through the mechanism for opening and closing the securing pins; Fig. 3 is a similar view to Fig. 2, illustrating the operating bar in the position that it is caused to assume after the securing pins have been thrown open; Fig. 4 is a transverse sectional view of the mechanism for opening and closing the pins, which in this view are illustrated in closed position; Fig. 5 is a view similar to Fig. 4, the operating pins in this view being shown in open position; Fig. 6 is a detail perspective view of the operating bar; Fig. 7 is a detail perspective view of one set of the securing pins; Fig. 8 is a detail perspective view of a casing adapted to form the back of the binder or ledger, to which the cover and operating means are secured; Fig. 9 is a detail per-

spective view of one of the bolts; and Fig. 10 is a detail view of a fragmentary portion of the handle which is adapted to be secured to the operating bar. Fig. 11 is a detail perspective view of a fragmentary portion of the base plate and rod for connecting the inner ends of the securing pins, illustrating the manner in which the securing pins are pivotally mounted upon the base plate.

Referring to the drawings by reference numerals, 1 designates a cover which may be constructed from any suitable material and has the sides or sections 2 thereof connected by a flexible back 3.

4 designates a channeled casing open at its ends and preferably semi-circular in cross-section. The back 3 of the cover is adapted to be secured to the casing 4 in such a manner that its sides or sections 2 may be readily swung to open or close the binder or ledger. The longitudinal edges of the casing 4 are provided with diverging flanges 5, to which the back 3 is adapted to be secured, by means of rivets 5<sup>a</sup> or other suitable fastening means passing through the back 3 and engaging said flanges and to which a base plate 6 which is adapted to carry the securing pins and the means for opening and closing the same is removably secured. The base plate 6 has its longitudinal edges provided with depending flanges 7 which are adapted to engage the flanges 5 on the casing so as to removably secure the base plate thereto. The base plate and its flanges and the flanges 5 are provided with a plurality of recesses 8 which are arranged in transverse alinement to each other.

Pivotally secured to the base plate 6 in the recesses 8 thereof are a plurality of securing pins 9, said pins being provided with openings 9<sup>a</sup> at points intermediate their ends. The securing pins are pivotally mounted upon the base plate by projecting pintles 9<sup>b</sup> through said openings 9<sup>a</sup> and rigidly securing the ends of the pintles in ears 9<sup>c</sup>, said ears being secured to the base plate 6. The securing pins have their inner ends disposed within the casing 4 and connected by means of rods 10, while their upper or free extremities are adapted to be brought into or out of engagement with each other to open or close the pins, whereby the leaves may be applied to or removed from the pins and secured in applied position against accidental displacement. Longitudinally disposed brackets 11 are secured to the underside of the base plate 6 to dispose them within the casing, and in



said brackets is mounted a reciprocatory operating bar 12. The operating bar is provided with a plurality of arcuate slots which extend obliquely from the upper edge thereof inwardly a suitable distance. Bolts 14 are adapted to have their extremities loosely disposed in apertures 15 in the rods 10, and are adapted to be received by the slots 13 in the operating bar. The bolts are provided with vertically disposed flanges 16 which are adapted to engage either side of the operating bar to prevent said bolts from having a longitudinal movement within the slots 13.

It is apparent, in view of the construction and arrangement of the slots 13, when the operating bar 12 is caused to move longitudinally, that the bolts 14 are either depressed or elevated in a vertical plane. The elevating or depressing of the bolts 14 will, in view of their connection with the rods 15, cause said rods to be swung toward or away from each other, consequently imparting a similar motion to the outer extremities of the securing pins 9 to open or close said pins.

The base plate 6 has its extremities provided with depending flanges 17 and 18, which close the ends of the casing 4. The flange 18 is depressed and provided with a centrally located aperture 19, through which is adapted to project one end of a handle 20, the other end of which is secured to the operating bar 12. The outer extremity of the handle 19 is provided with a knob 21, which is adapted to be grasped when it is desired to impart motion to the bar 12 to open or close the pins 9. When it is desired to open the pins 9 the knob is grasped and pulled outward which moves the operating bar in one direction, and when it is desired to close the pins a reverse movement is imparted to the operating bar by pushing upon the knob 21. This reverse movement of the operating bar will cause the knob 21 to normally occupy the recess 18, whereby all liability of said knob forming an obstruction is obviated.

The knob 21 is loosely mounted upon the handle 20 to permit of its being withdrawn from the recess 18 without moving the handle, whereby the operator may secure a firm grasp thereof to move the operating bar. In order to return the knob 21 to its normal position, I provide a spring 22 which encircles one end of the handle 20 and is interposed between a head 23 and a portion of the knob. The operating bar 12 is provided at one of its ends with a key-hole slot 20<sup>a</sup> adapted to receive an enlarged head 20<sup>b</sup> upon the handle 20 and also a portion of said handle, as fully disclosed in Fig. 2 of the drawings. This manner of connecting the handle and operating bar provides a firm connection therebetween and permits the handle to be readily detached from the operating bar.

It is apparent, from the above descrip-

tion, taken in connection with the accompanying drawings, that by moving the operating bar in one direction the operating pins are rocked upon their pivots to cause their free extremities to recede, thereby opening said pins to permit of the application and removal of leaves 24; and that a reverse movement of the operating bars will rock the pins upon their pivots to cause their free ends to move toward each other, thereby closing the said pins to obviate all liability of the leaves 24 from becoming accidentally disengaged therefrom. It is further apparent that the engagement of the flanges 5 by the flanges 7 will permit of the base plate 6, which carries the pins 9, rods 10, operating bar 12, and the bolts 14 being removably secured in applied position, whereby said base plate may be readily removed to repair any damages occurring to the operative members of the device.

Having described my invention, what I claim, is:—

1. A device of the class set forth, comprising a casing provided with flanges, a cover secured to said casing, a base plate provided with flanges adapted to engage the first mentioned flanges to secure the base plate to the casing, securing pins pivotally secured to the base plate, and means for opening and closing said pins, for the purpose set forth substantially as described.

2. A device of the class set forth, comprising a casing, a cover secured thereto, a base plate secured to the casing, securing pins pivotally secured to said base plate, rods for connecting the inner extremities of said securing pins, an operating bar slidably secured to said base plate and provided with oblique slots, and bolts mounted within said slots and adapted to engage said rods, whereby when the operating bar is reciprocated the securing pins are caused to open or close.

3. A device of the class set forth, comprising a casing provided with flanges, a cover secured to said casing, a base plate provided with flanges adapted to engage the first mentioned flanges to removably secure the base plate to the casing, securing pins pivotally secured to the base plate, and means for opening and closing said pins.

4. A device of the class set forth, comprising a cover, a base plate secured thereto, securing pins pivotally secured to the base plate intermediate of their ends, rods for connecting the inner ends of said pins and provided with apertures, an operating bar slidably secured to said base plate and provided with arcuate slots, and bolts mounted with said slots and having their extremities disposed within said apertures, whereby when the operating bar is moved the pins are caused to open or close.

5. A device of the class set forth, compris-



ing a cover, a base plate secured thereto, securing pins pivoted on the base plate intermediate of their ends, means for connecting the inner ends of the pins, an operating bar  
5 slidably mounted on the base plate and provided with arcuate slots, and bolts adapted to be received by said slots and engage said means, whereby when the operating bar is moved, the pins are caused to open or close.

10 6. A device of the class set forth, comprising a cover, a base plate secured thereto, pivoted securing pins carried by the base plate, means for connecting the inner ends of the pins, an operating bar slidably mounted on  
15 the base plate and provided with arcuate slots, and bolts adapted to be received by said slots and provided with flanges adapted to engage the operating bar to prevent the bolts from moving longitudinally, said bolts  
20 being adapted to engage said means whereby when the operating bar is reciprocated the pins are caused to open or close.

7. A device of the class set forth, comprising a casing provided with flanges, a cover  
25 secured to said casing, a base plate provided with flanges, adapted to engage the first mentioned flanges to removably secure the base plate to the casing, securing pins pivotally mounted upon the base plate, means  
30 for connecting the inner ends of the securing pins, brackets secured to the base plate, an operating bar slidably mounted in said brackets and provided with oblique slots, bolts mounted within said slots and adapted  
35 to have engagement with said means, whereby when the operating bar is reciprocated the securing pins are caused to open or close, and a handle secured to the operating bar.

8. A device of the class set forth, comprising pivotally mounted securing pins, means  
40 for connecting the inner ends of said securing pins, an operating bar provided with oblique slots, and means operating within said slots and engaging the first mentioned means, whereby when the operating bar is moved  
45 the securing pins are caused to open or close.

9. A device of the class set forth, comprising pivotally mounted securing pins, means for connecting the inner ends of said securing

pins, an operating bar provided with arcuate  
50 slots and a key-hole slot, means mounted within the arcuate slots and adapted to engage the first named means, whereby the securing pins may be rocked when the bar is moved, and a handle provided with a head  
55 adapted to be received by said keyhole slot.

10. A device of the class set forth, comprising a casing, a cover secured to said casing, a base plate removably secured to said casing, securing pins pivotally mounted on  
60 the base plate, means for connecting the inner ends of said securing pins, an operating bar provided with oblique slots and slidably mounted upon the base plate, and means operating within said slots and engaging the  
65 first named means, whereby when the operating bar is removed the securing pins are caused to open and close.

11. A device of the class set forth, comprising a casing open at its ends, a cover secured to said casing, a base plate removably secured to said casing and provided with depending flanges adapted to close the ends of  
70 said casing, one of said flanges being provided with a depression and an aperture, securing pins pivotally mounted upon the base plate, means for connecting the inner ends of said securing pins, an operating bar slidably mounted upon the base plate and provided  
75 with oblique slots and a key-hole slot, means operating within said oblique slots and engaging the first mentioned means, whereby when the operating bar is moved the securing pins are caused to open and close, a handle  
80 provided with a head adapted to be received by said key-hole slot and having its other end projecting through said aperture, a knob loosely mounted upon said handle, and a spring adapted to normally retain the said knob within said depression when the pins  
85 are in closed position.

In testimony whereof, I affix my signature in presence of two witnesses.

THOMAS R. EDDY.

Witnesses:

JOHN P. CHARBONNIER,  
ALFRED JAMES CLOW.