R. R. DARWIN.

TEMPORARY BINDER.

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960,279.

Patented June 7, 1910.

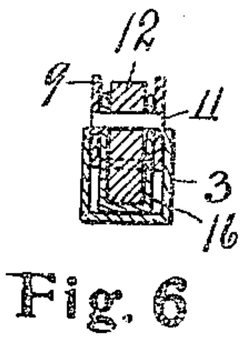

Fig. 6

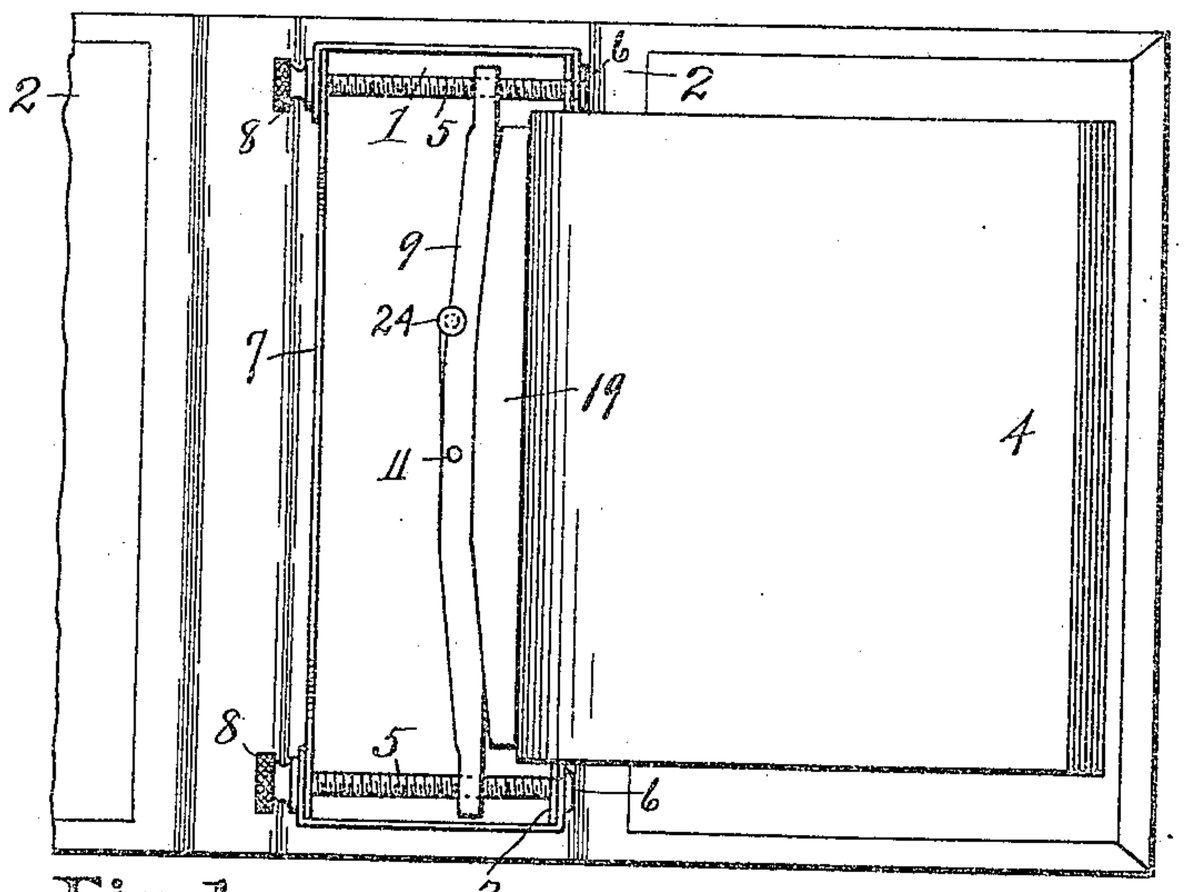

Fig. 1.

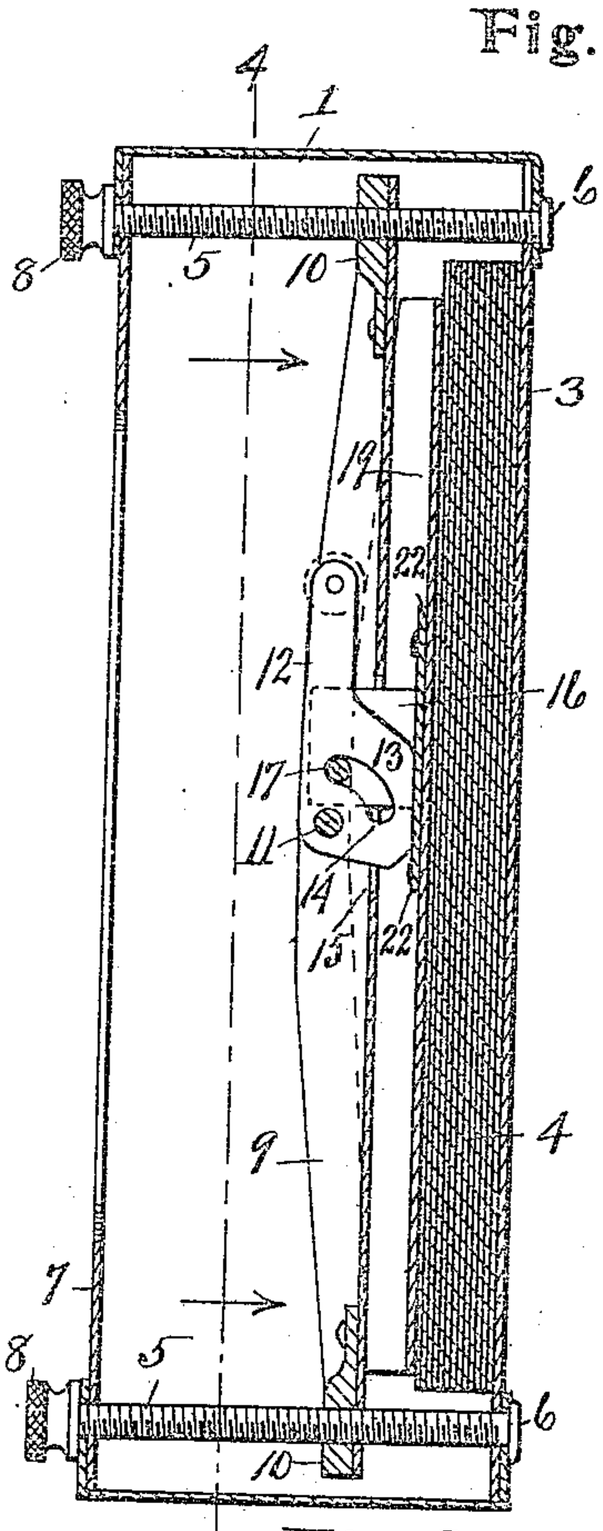

Fig. 2.

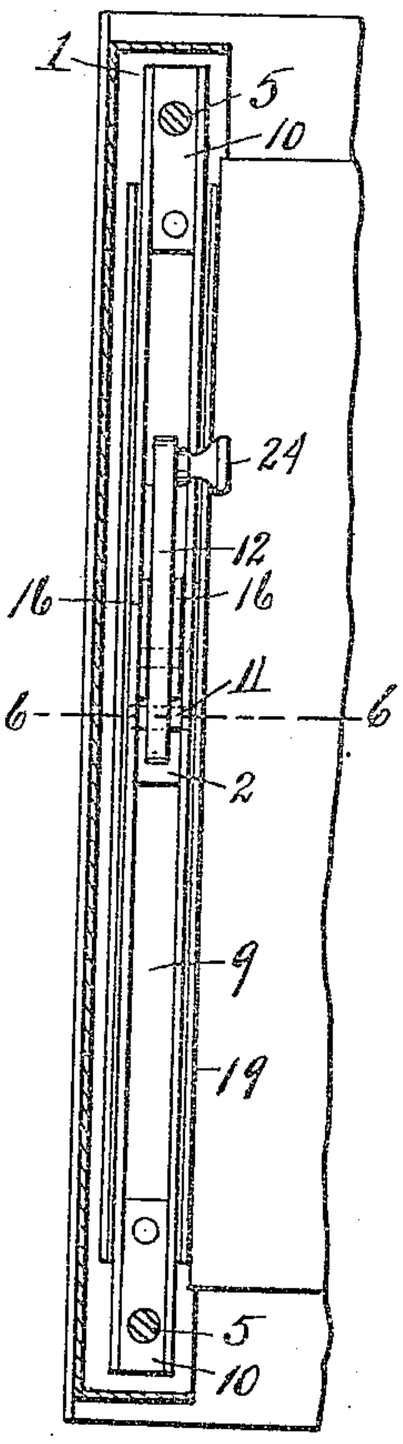

Fig. 4

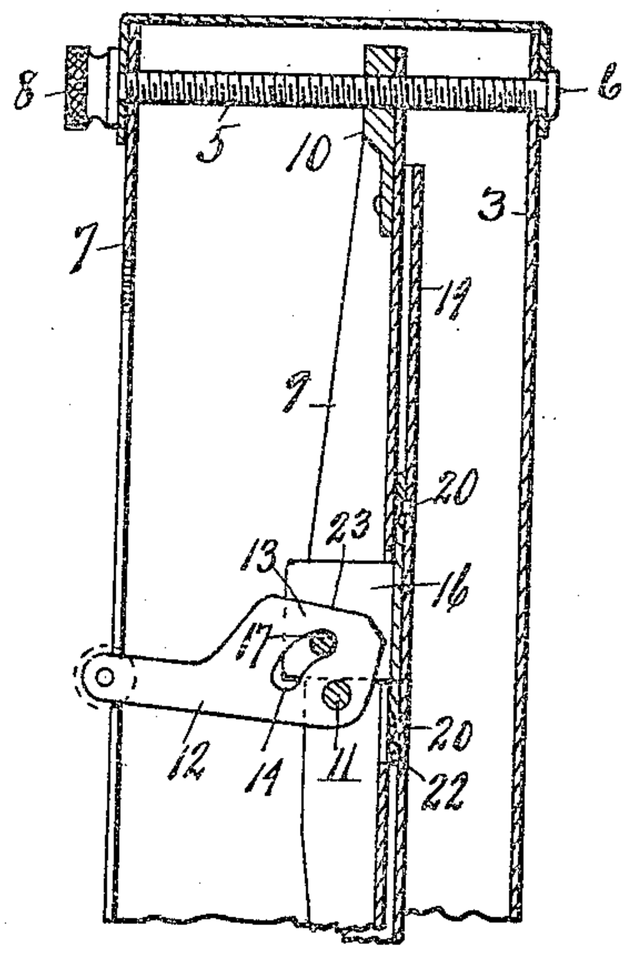

Fig. 3.

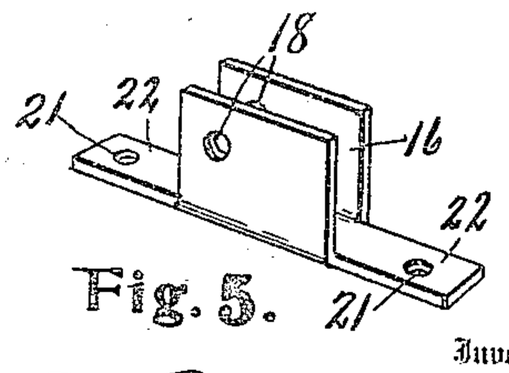

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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TEMPORARY BINDER.

960,279. Specification of Letters Patent. Patented June 7, 1910.

Application filed June 14, 1909. Serial No. 502,024.

To all whom it may concern:

Be it known that I, ROY R. DARWIN, a citizen of the United States, residing at Lansing, in the county of Ingham, State of Michigan, have invented certain new and useful Improvements in Temporary Binders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to temporary binders, and consists in the construction and arrangement of parts hereinafter more fully set forth and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for temporarily binding the leaves of a book so as to enable any number of leaves to be bound therein, and any one or more of the leaves removed, when desired; provision being made for adjusting the binder according to the number of leaves to be bound, and for quickly clamping said leaves, and as quickly releasing them, the leaves being insertible in the binder without perforating or notching them, or doing any preparatory work thereon. The above object is attained by the structure illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of an open book equipped with my improved binder, showing a number of leaves clamped or bound therein. Fig. 2 is a horizontal section through a case forming the back of the binder and through the binding parts and leaves clamped therein, the adjusting screws appearing in elevation. Fig. 3 is a fragmentary view similar to Fig. 2, showing the clamping or binding parts in the unlocked position. Fig. 4 is a longitudinal section as on line 4—4 of Fig. 2. Fig. 5 is a perspective view of the link or yoke which connects the pressure bar with the slotted cam lever which actuates it. Fig. 6 is a transverse section through the actuatable clamping parts, as on line 6—6 of Fig. 4.

Referring to the characters of reference, 1 designates a metal case which is preferably rectangular and in the form of a tray, said case serving to contain the clamping or binding parts forming the back portion of the book. The leaves 2 of the cover are secured to said metal case in any suitable manner. The flange 3 of the case serves as an abutment against which the leaves 4 are clamped to bind them in the book. The inner ends of the adjusting screws 5 are swiveled at 6 in said flange 3 of the case near the ends thereof, the outer ends of said screws passing through the outer flange 7 of the case near its ends and having the knurled heads 8.

Extending longitudinally of the case and movable transversely thereof is a stress bar 9 which is preferably formed of channel iron and whose reinforced ends 10 are tapped so as to receive the threads of the screws 5 which pass through the ends of said bar. By rotating said screws the bar 9 may be adjusted toward or from the abutment flange 3 of the case which forms one of the clamping members. Pivoted at 11 between the sides of the bar 9 is an actuating lever 12 carrying a cam 13, said lever having in the cam portion thereof a slot 14 concentric with the pivotal point 11 of said lever. Passing through an opening 15 in the bar 9 and embracing the sides of the lever 12 is a link 16 in the form of a yoke, the sides of which are connected by a transverse pin 17, whose ends are secured in the apertures 18 in the sides of said yoke, and which passes through the curved slot 14 in the cam lever. Adapted to embrace the stress bar 9 is a pressure bar 19 also formed of channel iron and serving as the movable clamping part which confines the leaves 4 between its straight face and the abutment 3 of the case. The link or yoke 16 is rigidly secured to the pressure bar by means of rivets 20, which pass through the apertures 21 in the extensions 22 of said yoke and through said bar. The connection between the cam lever and the yoke 16 is such that when the free end of said lever is swung outwardly to the position shown in Fig. 3, the pressure bar 19 will be drawn away from the abutment 3, thereby relieving the leaves 4 from all pressure, enabling the contained leaves to be removed and new leaves inserted, as may be desired.

To clamp the leaves in the book with the parts in the position shown in Fig. 3, the number of leaves it is desired the book shall contain are placed between the abutment 3 and the pressure bar 19. The stress bar 9 is then adjusted through the medium of the

screws 5 to space the pressure bar properly from the abutment flange 3 according to the number of leaves between said parts, when by throwing the free end of the lever down to the position shown in Fig. 2, the cam 13 of said lever will engage the base of the yoke 16 and carry the pressure bar forcibly against the leaves 4 to securely retain them in place, the straight bearing face 23 of the cam 13 engaging the base of the yoke to lock the lever against accidental movement owing to the fact that a portion of said bearing face extends beyond the horizontal center of the axis of said lever, whereby said lever becomes self locked. To release the leaves, it is only necessary to throw the free end of the lever outwardly to the position shown in Fig. 3, when the terminal of the slot 14 in said lever will engage the pin 17 and retract the yoke and pressure bar 19 connected thereto.

The length of the slot 14 in the lever 12 affords a free movement of the lever without imparting but a comparatively slight movement to the pressure bar 9, so that said lever when in the locked position may lie parallel to and within the sides of the stress bar 9. To facilitate the actuation of said lever, its free end is provided with a laterally projecting button 24. By means of the adjusting screws 15, the stress bar may be so positioned in the case as to enable the clamping therein of any number of leaves from the minimum to the maximum capacity of the binder.

The connection between the pressure bar and the actuating lever is of such a character as to afford a pivotal mounting for the pressure bar, whereby it is permitted to adjust itself to compensate for any inequality in the thickness of the leaves between its ends and the abutment 3.

Having thus fully set forth my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A temporary binder, comprising an abutment, a pressure bar movable toward and from said abutment, an adjustable support for the pressure bar, and a lever pivoted to said support and connected with said bar.

2. A temporary binder, comprising an abutment, a pressure bar parallel therewith and movable with respect thereto, an actuating lever having a movable connection with said pressure bar, and a stress bar on which said lever is pivotally mounted.

3. A temporary binder, comprising a case having an abutment at one edge, a stress bar movable transversely of the case, a lever pivoted to said stress bar, a pressure bar mounted on said stress bar, and a movable connection between said lever and pressure bar to enable said bar to be moved toward and from said abutment by an actuation of said lever.

4. A temporary binder, comprising a case, a stress bar movable transversely of the case, adjusting screws engaging the ends of said bar for imparting movement thereto, a lever pivoted to the stress bar, said case having an abutment at one side thereof, a pressure bar parallel with said abutment and movable with respect thereto, and a link connecting said pressure bar with said lever.

5. A temporary binder, comprising a stress bar, adjusting screws passing through the ends of said bar, an abutment, a pressure bar movable with respect to said abutment, an actuating lever carried by the stress bar, and a connection between said lever and said pressure bar.

6. A temporary binder, comprising a case having an abutment at one side thereof, a pressure bar parallel with said abutment, a stress bar with which the pressure bar is movably connected, means carried by the stress bar for actuating the pressure bar, and means for adjusting the ends of the stress bar with respect to said abutment.

In testimony whereof, I sign this specification in the presence of two witnesses.

ROY R. DARWIN.

Witnesses:
W. T. Barker,
Luther B. Edinborough.