G. BLATTEL & R. REIFEL.

LOOSE LEAF BINDER.

APPLICATION FILED NOV. 6, 1914.

1,175,404.

Patented Mar. 14, 1916.

Fig. 1.

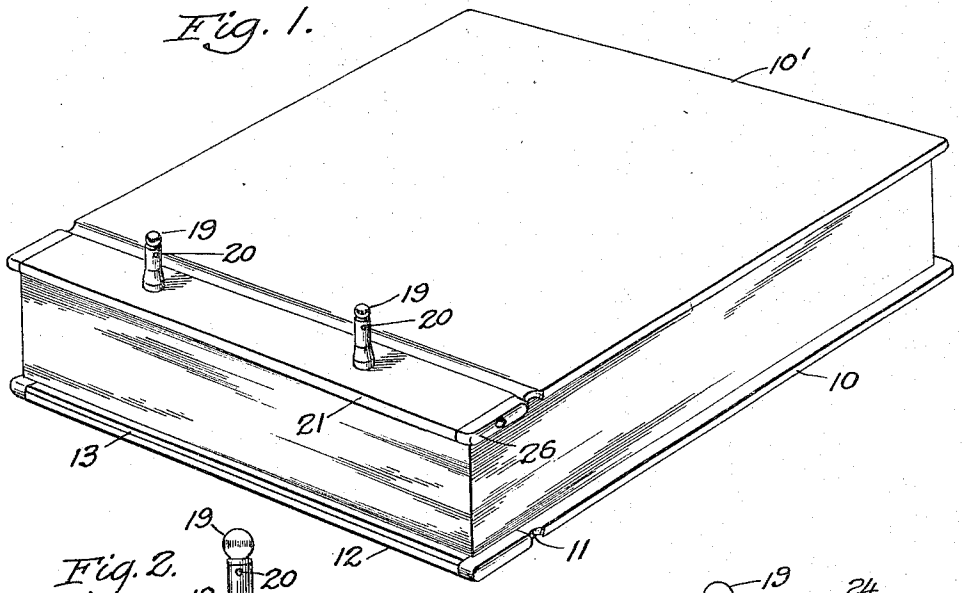


Fig. 2.

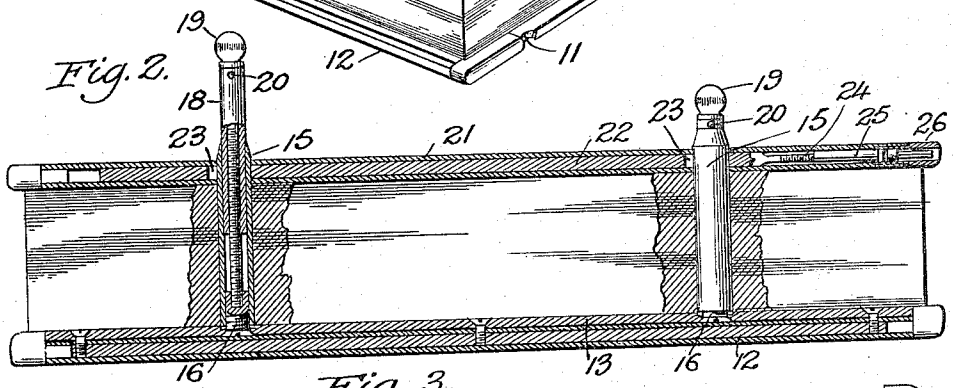


Fig. 3.

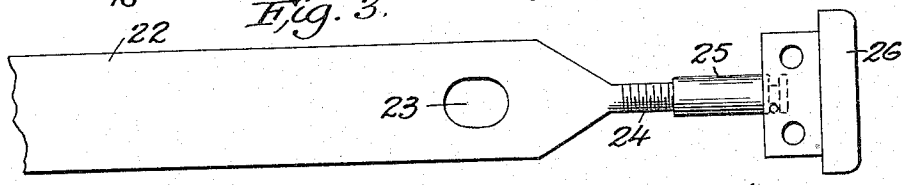


Fig. 5.

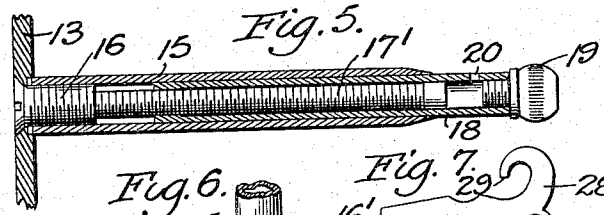


Fig. 4.

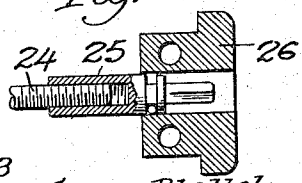


Fig. 6.

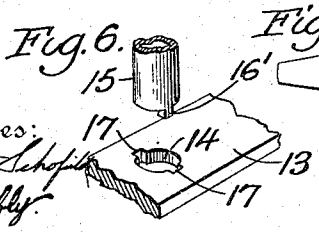
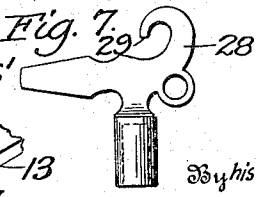


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE BLATTEL AND ROBERT REIFEL, OF NEW YORK, N. Y., ASSIGNORS OF ONE-THIRD TO BENJAMIN BLAKEMAN, OF BROOKLYN, NEW YORK.

LOOSE-LEAF BINDER.

1,175,404. Specification of Letters Patent. Patented Mar. 14, 1916.

Application filed November 6, 1914. Serial No. 870,560.

To all whom it may concern:

Be it known that we, GEORGE BLATTEL, a subject of the Czar of Russia, and ROBERT REIFEL, a citizen of the United States, and residents of New York, in the county of Bronx 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 binders and its object is to provide adjustable connecting means between the covers of the binder, these connecting means being secured to one of the covers permanently and passing through perforations in the leaves and other cover, they are therein locked, by means of a moving bar which impinges the connecting means at any point and regulated by the thickness of the book.

These and other details and objects of the invention are more fully described in the following specification, set forth in the claims and illustrated in the drawings, wherein:

Figure 1. is a perspective view of the improved binder. Fig. 2. is a rear view of the same partly in section. Fig. 3. is a plan view of one end of the locking bar. Fig. 4. is a sectional view of the adjusting means for the locking bar. Fig. 5. is a longitudinal sectional view (horizontally disposed) of a connecting post. Fig. 6. is a detail perspective showing the attachment of the post to its base. Fig. 7. is a key used in operating the device.

On account of the great bulk and weight attending the addition of sheets to loose leaf books, it is very essential that the parts and connections be solid and substantial, and not capable of bending nor becoming disconnected. In addition to these qualities, it is necessary that the posts on which the leaves are placed should be capable of adjustment, so that when a minimum number of leaves are used the posts will not project too far above the removable cover and be an obstruction. Various means have been sought to overcome these objections and the present invention provides a rigid post of normal length into which is adjusted a telescoping extension, the whole forming a substantially solid post, either part of which may be engaged by the locking bar, which also retains the removable cover.

The drawings show the cover 10 with the flexible portion 11, and the end portion or flap 12 which incloses a bar to which the base bar 13 is secured by means of screws or otherwise, and through perforations 14, are secured the tubular posts 15. Screws 16 pass through the perforations and into the threaded lower end of the tubes 15 which have tongues 16^1 fitting into recesses 17 at each side of the perforations 14, so that the tubes cannot turn. Permanently fitted to the inner end of the screws 16 are threaded extensions 17^1 which play in the threaded lower ends of tubular extensions 18, the head of the screw 17^1 being enlarged to play freely in the tube 18, but not pass out of its lower end. In order to rotate the extension tube and adjust it, the upper end is provided with a milled head 19, also a hole 20 for a wrench.

The right hand post in Fig. 2 shows how the length of the post may be reduced to provide for an ordinary size book while to accommodate more leaves, the extensions 18 are screwed outward. When the leaves are added and the upper cover 10^1 by means of its perforated flap 21 is put in position, it is retained by means of the locking bar 22. The latter bar is inclosed within the flap 21 and as will be seen in Figs. 2 and 3 has the perforations 23 through which the posts are fitted and they are elongated, so that the posts may be locked or released by a slight longitudinal movement. The bar is moved as shown in Fig. 4 where it will be seen that its threaded stem plays in a nut 25, swiveled in the head 26 that is secured to one end of the flap 21 and the nut has a squared stem 27 to be engaged by the key 28. This key may also be provided with a pin 29 to act as a wrench in the perforation 20. The flap 21 may be of sheet metal so that the head 26 may be riveted therein and the other ends of the flaps may be fitted with similar heads to prevent wear and provide ends which will not be destructive to desks and papers. With this construction the binder may be quickly adjusted, so that the covers may fit snugly about the leaves, no matter what their thickness may be, and the ends of the posts will not prove an objectionable feature, because they may always be brought close to the cover, unless a very small number of leaves are used.

It is obvious that the parts may be otherwise arranged or modified without depart-

ing from the essential features above described.

What we claim is:

1. In loose leaf binders, the combination with a tubular post, of a base bar, a screw passing through the bar and securing the post, a reduced portion on the screw and within the post, and a telescopic extension for the post and adjustable on the reduced portion of the screw.

2. In loose leaf binders, the combination with a cover having a flap at one end, of a base bar in the flap, tubular posts rigidly secured to the bar, screws passing through the bar and into the posts, threaded extensions to the screws, telescopic posts on the extensions and within the rigid posts, milled heads on the telescopic posts, a second cover with a hollow flap adapted to fit on the posts, a perforated locking bar with threaded end in the latter flap, a head at the end of the flap, a nut on the end of the locking bar and swiveled to the head and means for rotating the nut.

Signed at New York in the county of New York and State of New York.

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