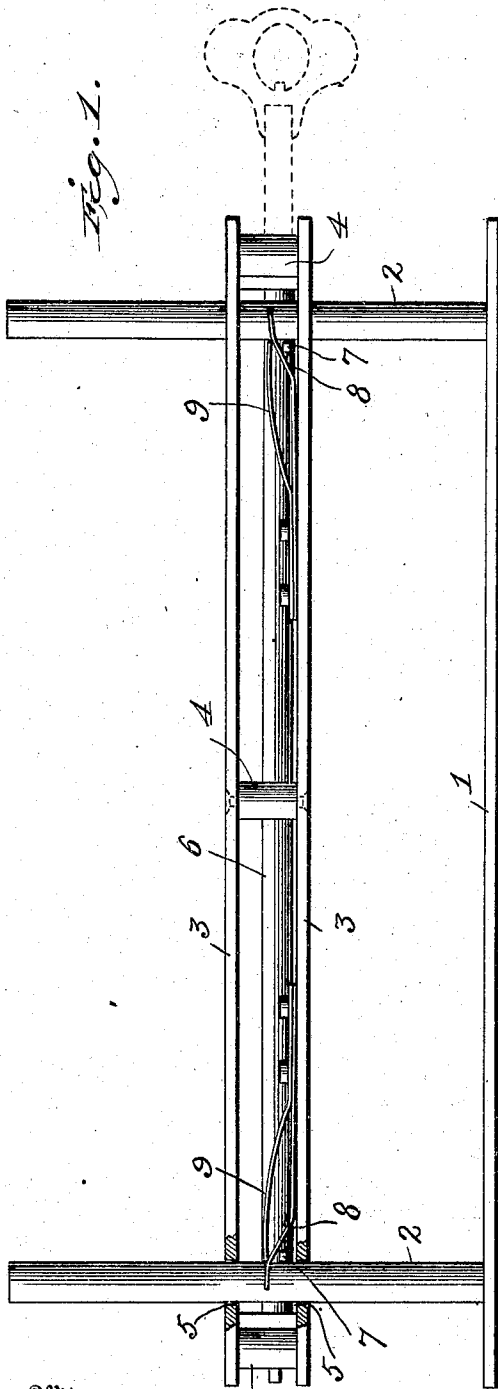


S. H. MITCHELL.  
 LOOSE LEAF BINDER.  
 APPLICATION FILED MAY 14, 1909.

932,801.

Patented Aug. 31, 1909.



Witnesses  
 Edwin L. Jewell  
 C. Davis

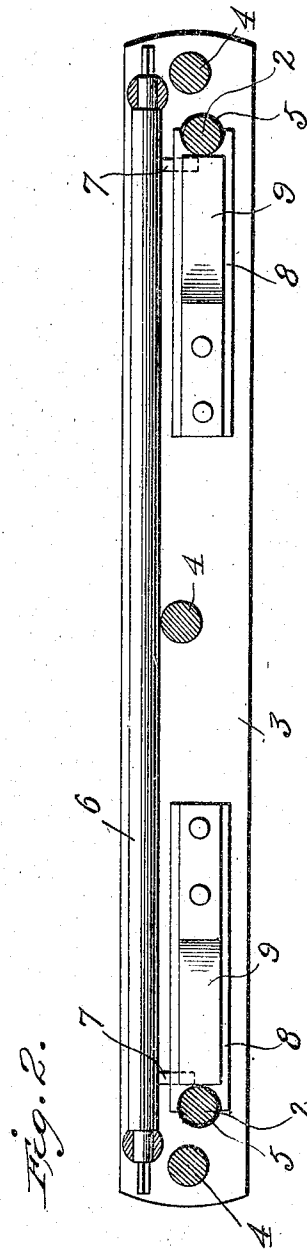


Fig. 2.  
 Inventor  
 Stephen H. Mitchell  
 R. W. Bishop  
 Attorney

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# UNITED STATES PATENT OFFICE.

STEPHEN HENRY MITCHELL, OF SALT LAKE CITY, UTAH.

LOOSE-LEAF BINDER.

932,801.

Specification of Letters Patent. Patented Aug. 31, 1909.

Application filed May 14, 1909. Serial No. 495,976.

*To all whom it may concern:*

Be it known that I, STEPHEN HENRY MITCHELL, a citizen of the United States of America, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide simple means for locking and unlocking the movable or clamping member of the device, and it consists in certain novel features hereinafter fully described and particularly pointed out in the claim.

In the drawings, Figure 1 is a side elevation, partly in section; and, Fig. 2 is a longitudinal section, taken between the frame bars of the movable member.

In carrying out the present invention, I employ a base plate or bar 1 from which posts 2 rise, the said posts being intended to retain the loose leaves by passing through openings formed in the same, as will be readily understood. Above the loose leaves, a slidable frame or casing is mounted on the posts, the frame being shown in the drawings as consisting of two plates 3 held rigidly a slight distance apart by connecting bolts or rivets 4. These plates are, of course, provided with openings 5, through which the posts pass, and between the plates a rock-shaft 6 is journaled in suitable bearings, the said rock-shaft being provided near its ends with radial arms 7 which extend inwardly under a pair of springs 8 fastened on the upper face of the lower one of the two bars 3 and one at each end of the frame. The free end of each of these springs is rounded out to embrace the adjacent post 2 and the tendency of the spring is to spring downwardly and thus normally bite into the post. On top of each spring is fastened a supplemental spring 9 whose free end bears down upon the free end of the main spring 8 and assists in forcing it against the post 2. The rock-shaft 6 extends approximately the full length of the bars 3 and each of its ends is squared off to adapt it to receive a key or other tool.

The loose leaves, it will be understood, are previously prepared with perforations so

that they may be readily placed over the posts to the desired number. The slidable frame is then placed in position on the posts and pressed downwardly upon the leaves. As the slidable frame is pushed down over the posts the frictional engagement of the posts and the notched springs 8 will cause the free ends of said springs to bend slightly upwardly sufficiently to permit the frame to slide downwardly on the posts. Should it be attempted to raise the frame, however, the frictional engagement between the said springs and posts would cause the springs to bind or bite against the posts and thereby prevent upward movement of the frame. The surreptitious or accidental removal of leaves is thus prevented, but when the leaves are to be removed, the custodian of the apparatus will apply a suitable key to either end of the rock-shaft and rock the same sufficiently to cause the radial arms or pins 7 to lift the springs 8 sufficiently to release the posts and thus permit the frame to be slid upwardly far enough to unclamp the leaves.

The device is very simple in its construction, being composed of few parts which are compactly arranged. The slidable clamping frame may be easily pushed downward to more firmly secure the leaves but can be lifted to loosen or permit removal of the leaves only after the releasing key has been brought into play, as will be readily understood from the foregoing description.

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

In a loose-leaf binder, the combination of a plate carrying up-standing posts, a clamping frame slidably mounted on said posts, springs fastened to said frame and normally gripping said posts to prevent upward movement of said frame on said posts, a rock-shaft extending approximately the full length of said frame and adapted to receive an operating tool and provided with lateral pins extending under said springs, for the purpose set forth.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

STEPHEN HENRY MITCHELL.

Witnesses:

EDWIN J. SHIELDS,  
GERTRUDE SNEVELY.