

No. 853,962.

PATENTED MAY 21, 1907.

J. C. DAWSON.
LOOSE LEAF BINDER.
APPLICATION FILED APR. 30, 1906.

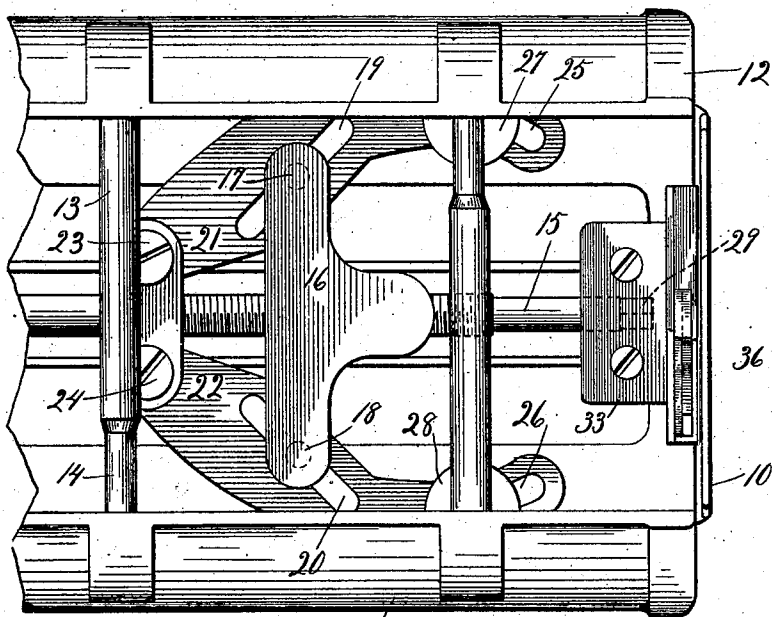


Fig. 1.

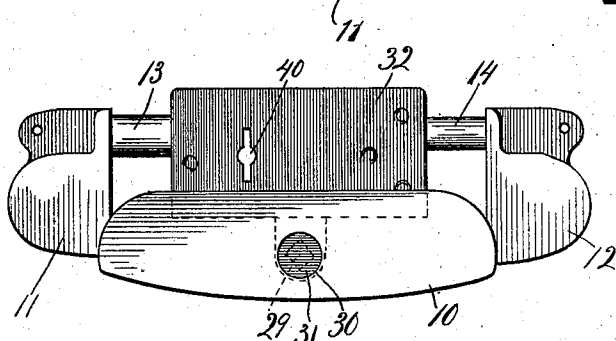


Fig. 2.

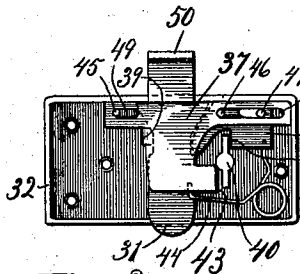


Fig. 3.

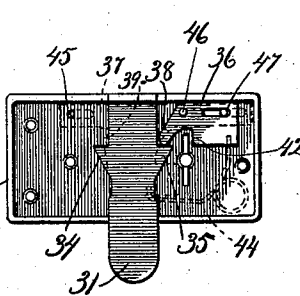


Fig. 4.

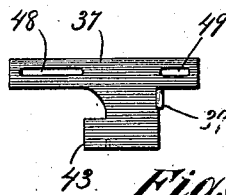


Fig. 5.



Fig. 6.

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UNITED STATES PATENT OFFICE.

JAMES C. DAWSON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO SIEBER
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LOOSE-LEAF BINDER.

No. 853,962.

Specification of Letters Patent.

Patented May 21, 1907.

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To all whom it may concern:

Be it known that I, JAMES C. DAWSON, a citizen of the United States, and a resident of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to loose leaf binders of the expansion type, commonly known in the trade as ledgers.

The object of the invention is to provide a lock to prevent the unwarrantable opening of the binder; and the invention consists, broadly, in a binder of the type mentioned having a screw-rod for controlling the expanding means, and a lock arranged to cover the key-hole which provides access to the threaded rod; more specifically, the invention relates to the specific form of lock employed, and consists in the mechanism hereinafter described and which is illustrated in the accompanying drawings, in which

Figure 1 is a detail plan view of the metal parts of the binder, some portions of the lock being broken away; Fig. 2 is an end view of the same; Fig. 3 is a view of the lock with one of its face plates removed, the bolt being withdrawn; Fig. 4 is a similar view, some of the parts being shown in dotted lines, the bolt being thrown; Fig. 5 is a detail of one of the tumblers of the lock; and Fig. 6 is a detail of the key for controlling it.

The binder comprises a back plate 10 and laterally movable side plates 11, 12; the usual telescoping rods 13 and 14 are secured, respectively, to the side members. The screw-rod for controlling the expansion mechanism is shown at 15, and engages a nut 16 which is provided with studs 17, 18, taking in to oblique slots 19, 20, in lever arms 21, 22, which are pivoted at 23, 24, to the middle section 10 of the binder and engage, by means of the slots 25, 26, in their outer ends, suitable studs, the heads of which are shown at 27, 28, in the side members. All of these parts are old, and for that reason it does not seem necessary to illustrate them in detail.

The end of the screw-rod 15 is squared, as shown at 29, and a key-hole 30 is provided in the end flange of the member 10 of the binder

frame to give access to this rod by means of a suitable key, not shown.

In order to prevent unwarrantable opening of the binder for the purpose of removing sheets therefrom, means are provided for closing the key-hole 30, such means comprising the bolt 31 of the lock 32, which is adapted to slide across the key-hole and thus effectually prevent the entrance of the screw-rod key. The lock 32 comprises a chambered casing having a lateral flange 33 adapted to be secured, by means of screws, to the binder member 10 in such position that the case of the lock lies against and projects above the end flange of this member.

The bolt 31 is of greater length than the lock casing, and reciprocates vertically there-through. When thrown to the locking position, as shown in Fig. 4, the upper end of the bolt is flush with the upper end of the casing. When the bolt is withdrawn, as shown in Fig. 3, the upper end projects above the casing and its lower end is substantially flush with the bottom thereof.

The bolt 31 is provided intermediate of its ends with lateral wings 34, 35, having at their upper ends abrupt shoulders, their lower portions being inclined from the outer ends of such shoulders back to the body of the bolt. Two tumblers 36, 37, are employed and lie against each other, one being in line with the bolt and the other resting against the flat face thereof and extending beyond it in each direction. The tumbler 36 is provided with a nose 38 for engaging the shoulder 35, and the tumbler 37 is provided with a lug 39 for engaging the shoulder 34.

The key-hole 40 for the lock is so located that a double ward key 41 being inserted will engage by one of its wards a shoulder 42 on the tumbler 36 and a shoulder 43 on the tumbler 37, and as the key is turned the tumblers will be moved out of engagement with the shoulders of the lock and one ward of the key will engage the under face of the wing 35 of the bolt and slightly raise the latter. When the wards of the key slip from the shoulders 42, 43 of the tumblers, the latter are returned to their original positions by means of a spring 44 reacting between them. As the tumblers return the nose 38 of the one and the lug 39 of the other engage the in-

clined faces of the wings 34, 35, and by a cam action complete the movement of the bolt. The tumblers are guided by suitable studs, as 45, 46 and 47, engaging suitable slots, as 48, 49. When it is desired to relock the binder, it is only necessary to push the latter down by applying pressure to its upper end 50. In this action the wings 34, 35, again spread the tumblers and the bolt having reached its advance position, the tumblers are again returned by the spring 44.

The wards of the key 41 may be given any suitable configuration for the purpose of frustrating attempts to pick the lock.

I claim as my invention—

1. In a key-controlled binder, in combination, a plate having a key-hole, a lock secured to the binder and having a manually-advanced and key-withdrawn bolt for covering the key-hole.

2. In a key-controlled binder, in combination, a plate having a key-hole, a lock se-

cured to the binder and having a bolt manually movable in a path intersecting the line of the key-hole.

3. In a key-controlled binder, the combination with a plate having a key-hole, a bolt reciprocable across the key-hole and having a thumb-piece, a spring-advanced and key-retracted detent for retaining the reciprocable plate.

4. In a key-controlled binder, in combination, an end plate having a key aperture, a lock casing carried by the end plate, a bolt reciprocable through the casing to and from the key-hole and having a projecting pressure-receiving end, and a spring-advanced key-retracted detent for holding the bolt in its advance position.

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Witnesses:

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