F. B. JORDAN.

LOOSE LEAF BINDER.

APPLICATION FILED APR. 29, 1908.

919,589. Patented Apr. 27, 1909.

Fig. 1.

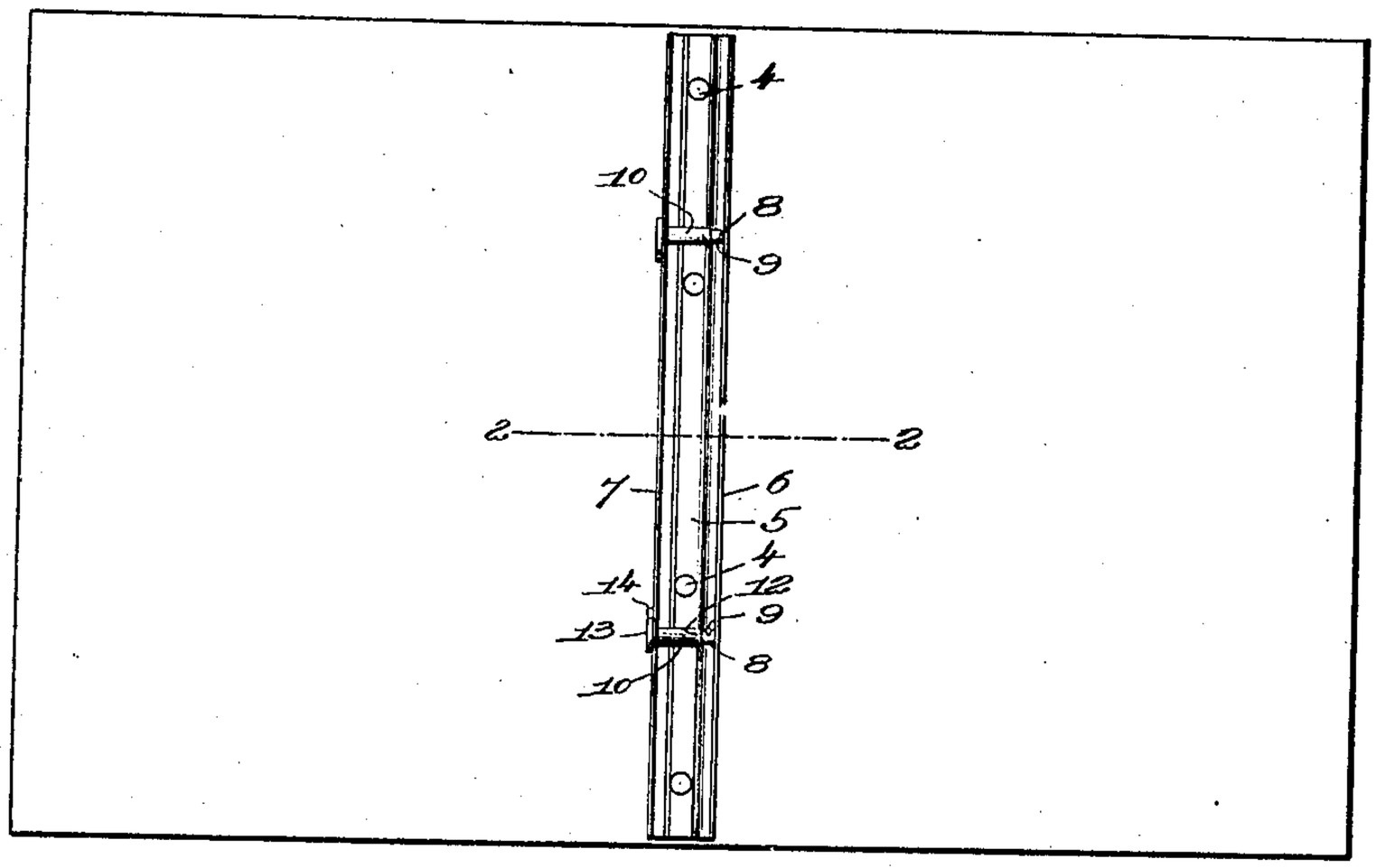


Fig. 2.

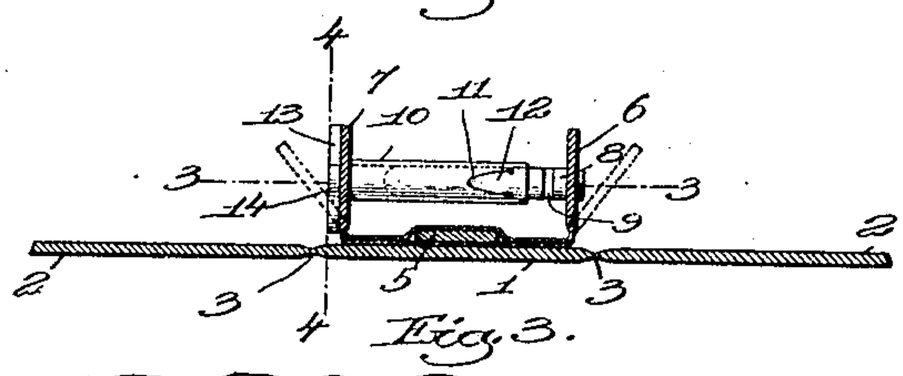


Fig. 3.

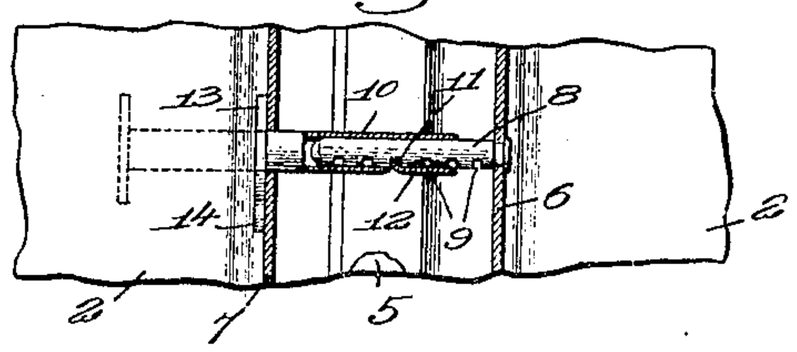
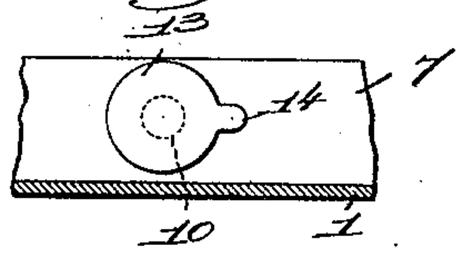


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER.

No. 919,589. Specification of Letters Patent. Patented April 27, 1909.

Application filed April 29, 1908. Serial No. 429,949.

To all whom it may concern:

Be it known that I, FRED B. JORDAN, a citizen of the United States, and resident of Winchester, county of Middlesex, State of Massachusetts, have invented an Improvement in Loose-Leaf Binders, of which the following description, in connection with the accompanying drawing, is a specification, like numerals on the drawing representing like parts.

This invention has for its object the production of a novel, simple and effective temporary or loose-leaf binder particularly well adapted for use in binding up catalogues or similar publications, in which it is desirable to make changes or additions from time to time without requiring the preparation of an entire new edition.

Many business concerns issue large and expensively prepared catalogues which must be changed or added to in some parts from season to season, and the loose-leaf system offers peculiar advantages for such work, but to make it thoroughly effective a simple and durable adjustable binder must be used which can be easily and quickly unlocked when desired but which under normal conditions will firmly and securely hold in locked position the loose leaves comprising the catalogue or other book.

My present invention provides a binder having the necessary qualifications, while it is at the same time simple, strong, easily and quickly manipulated, and of relatively small cost.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a plan view of a loose-leaf binder embodying one form of my present invention, the covers being spread out flat and the loose leaves being omitted for clearness of illustration; Fig. 2 is an enlarged cross-sectional detail on the line 2—2, Fig. 1; Fig. 3 is a section on the line 3—3, Fig. 2, of the locking member of the binder device, the coöperating member being shown in elevation; Fig. 4 is a view on the line 4—4, Fig. 2, looking toward the right.

I have herein shown my invention as applied to the flat and rigid back 1 to which the board or other covers 2, 2 are flexibly connected in any suitable manner at 3, 3, shown in section Fig. 2, the inner face of the back having fixedly attached to it by suitable means, as rivets 4, Fig. 1, a base 5 extending practically the length of the back. This base in practice may be a metal bar covered with cloth, a commom form of construction, the cloth being extended to form flexible connections or hinges for opposite sides 6, 7, corresponding in length to the base and movable in parallelism toward or from each other, the held or bound edges of the loose leaves (not shown) being interposed between the sides, and held in place by the adjustable binder devices, of which I prefer to use two, though more may be used if desired.

Each binder device comprises two telescopically arranged coöperating members, movable longitudinally one into or out of the other, one member being mounted on one of the sides of the base and the other member on the opposite side. I have herein shown one member of the binder device as a cylindrical post 8, preferably made of metal, and in the form illustrated it is fixedly mounted in one of the base sides, as 6, and extended transversely of the base toward the opposite side 7, said post having a series of notches 9 formed on one of its sides, and preferably on the side toward the post of the other binder device, as shown in Fig. 1. The coöperating member 10 is made as a tube rotatively mounted in the base side 7 opposite the post 8 and extended toward the upturned side 6, as clearly shown, and of such internal diameter that the post will slide easily in and out of it. Said tubular member is provided with an inturned locking latch, and herein I have shown said latch as the free inturned end 11 of a spring tongue 12 integral with the member 10 and formed by making a V-shaped slit in it and turning its tip inward, see Fig. 3. The latch is also extended toward the outer end of the member 10 so that when the post 8 is pushed thereinto the latch will snap over the notches and into the one opposite it when the members are adjusted, but preventing separation of said members by a straight outward pull, as will be plain from an inspection of Fig. 3.

The locking members 10 can be drawn outward through the side 7 of the base when the latches are disengaged from the notches of the members 8, and such disengagement is effected by a relative rotative movement of

the members 8 and 10 to thereby cause the latch to travel up out of the notch and onto the smooth, unnotched portion of the member 8. As herein arranged the relative rotation to unlock is effected by a partial revolution of the member 10, but it will be readily seen that said member could be fixedly mounted and the member 8 would then be rotatively supported in its sustaining side 6. To facilitate the unlocking, and also the outward movement of the member 10 of the binder device to separate the two members thereof I have provided the enlarged head 13 at its outer end, with a projection 14, Fig. 4, in line with the latch, so that the operator can by grasping the head turn the same until the position of the projection 14 will show that the latch is out of the notch and the parts 8 and 10 unlocked. Herein a quarter turn of the head in either direction from the position shown in Fig. 4 will withdraw the latch from a notch and unlock the two members of the binder device. Then by drawing the member 10 outward, as in dotted lines Fig. 3, and pressing apart the sides 6 and 7, see dotted lines Fig. 2, the members 10 and 8 are separated sufficiently for the insertion or removal of the desired leaves. The loose sheets or leaves will be provided near the binding edge with usual round holes to receive the binder devices, and by making the notches 9 on the inner sides only of the members 8 there is little or no obstruction to the addition or removal of the leaves, as they slide on the round and smooth portion of the post with no danger of tearing.

By the construction herein shown I do away with screw-threaded, posts and threaded nuts or caps to screw thereon, and the locking of the binder members is effected automatically, the inward telescoping movement being continued until the desired compression of the bound leaves is effected, the latches springing into locking position automatically. The heads 13 are drawn against the outer face of the side 7 of the base when the binder members are telescoped, so that the pressure of the interposed leaves upon the sides of the base cannot separate the locked members.

My invention is not restricted to use in connection with loose-leaf catalogues, and various changes may be made in details of construction and arrangement without departing from the spirit and scope of my invention as set forth in the appended claims.

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

1. In a loose-leaf binder, separable binder devices arranged in pairs and adapted to telescope one into the other, and a locking latch on one member of each pair adapted to engage one of a series of notches on the coöperating member, to thereby lock the members in fixed position, a base having flexibly connected, upturned opposite sides movable toward and from each other in parallelism, one member of each pair of binder devices being fixedly mounted on one of the base sides and its coöperating member being rotatably supported on the other of the base sides and movable longitudinally therein, rotative movement of the last named member disengaging the latch from a notch of the fellow member and enabling said members to be completely separated one from the other.

2. In a loose-leaf binder, a base having flexibly connected, upturned sides, two binder posts mounted on one side and two coöperating tubular members mounted on the opposite side of the base, and a locking device on each tubular member, a series of notches on the inner side of each post to cooperate with the locking device, one member of each pair of said coöperating binder elements being rotatively mounted to effect disengagement of the locking device on one member from a notch on the other member, the rotative members being also longitudinally movable in the supporting side of the base.

3. In a loose-leaf binder, a rigid back, and covers flexibly connected therewith, a base fixedly secured to the inner face of the back and having opposite sides flexibly connected therewith and movable in parallelism toward and from each other within the covers, a binder device comprising two telescopic members mounted on the opposite sides of the base and separated wholly from each other by relative longitudinal movement, one member having a series of notches, and a coöperating spring lock on the other member, to automatically enter a notch and lock the members together when telescoped, rotative movement of one member relatively to its fellow releasing the lock and permitting complete separation of said members by longitudinal movement thereof.

4. In a loose-leaf binder, a rigid back, and covers flexibly connected therewith, a base fixedly secured to the inner face of the back between the covers, opposite upturned sides flexibly connected with the base and movable in parallelism toward and from each other, a binder device comprising two opposite members mounted on the sides and separable by relative longitudinal movement, to enter round holes in the loose leaves, and means to lock said members together and thereby prevent separation of the upturned sides.

5. In a loose-leaf binder, a base having opposite upturned sides movable toward and from each other, a binder device comprising two opposite members mounted on the sides, one member having a series of notches at one side and the other member having a spring latch to engage a notch and lock the mem-

bers together, and a head on the latch member having an indicator to locate the position of the latch, said member being longitudinally and rotatively movable in the side of the base supporting it and the notched member being fixedly held in the opposite side of the base.

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

FRED B. JORDAN.

Witnesses:

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