

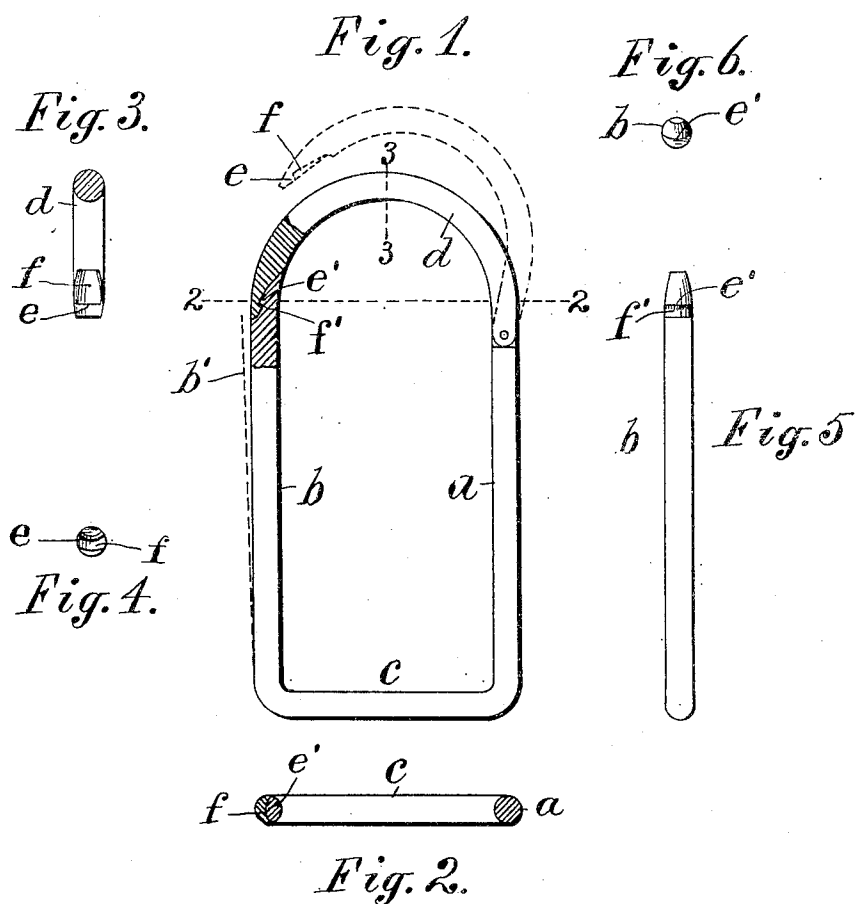
No. 876,474.

PATENTED JAN. 14, 1908

L. M. MORDEN.

FILE RING.

APPLICATION FILED JUNE 1, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

LUCENA M. MORDEN, OF WATERBURY, CONNECTICUT.

FILE-RING.

No. 876,474.

Specification of Letters Patent.

Patented Jan. 14, 1903.

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To all whom it may concern:

Be it known that I, LUCENA M. MORDEN, a citizen of the United States, of 59 Grand street, Waterbury, county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in File-Rings, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The purpose of this invention is to furnish an improved locking joint for the opening-section of the so-called book-rings having parallel side-portions with integral foot-portion at the bottom and hinged section at the top.

In my prior patent No. 808,248 granted December 26, 1905 for book ring with lock joint, I have shown a book-ring having parallel side-portions with an opening section hinged to one of the side-portions and having lock-joint with the opposite side-portion, such lock-joint having the engaging surfaces made concentric with the hinge and formed with ribs having undercut or dove-tailed edges.

My present invention furnishes a lock-joint of cheaper construction for such an opening section, and furnishes a more direct resistance to any outward strain upon the side-portion.

A ring of oblong shape with parallel sides, such as is shown in my drawing, is used in very large files where the sheets of paper are heavy, and such rings are often fastened by the foot *c* to a file-board hung upon a wall with the member *b* projected horizontally. When a large quantity of heavy papers is accumulated upon such member, the weight tends to spring the same downwardly or outwardly, as indicated by the dotted line *b'* in Figure 1, and a construction which will positively and effectively resist such downward pressure, and can be manufactured cheaply, is of material value. In my present construction, the free end of the opening section is beveled upon its inner side and the corresponding end of the side-portion is beveled upon the outer side so that the end of the hinged section overlaps the side-portion and directly resists any pull or outward strain upon the same.

The invention will be understood by reference to the annexed drawing, in which

Fig. 1 shows a book-ring with parallel side-portions, with dotted lines showing an alternative position for the parts; Fig. 2 is a cross-

section on line 2—2 in Fig. 1; Fig. 3 shows the inner side of the hinged section divided on line 3—3 in Fig. 1; Fig. 4 shows the end of the hinged section; Fig. 5 shows the outer side, and Fig. 6 the end of the joint upon the adjacent side-portion.

The ring is formed with parallel sides or portions which form a hinging member *a* and a locking member *b* connected by a bottom bar or portion *c*. A curved section *d* is hinged to the member *a* to open the ring, and connects the ends of the members *a* and *b* by an arch. Such construction is common, as my invention relates only to the locking joint of the hinged section *d* and the locking member *b*. The hinged section *d* is jointed to open in the plane of the ring; and its free end is beveled upon the inner side and formed with a recess *f* and a transverse tooth *e* at its extreme end, such parts being lettered in Fig. 1 only in the dotted representation of the hinged section. The locking member *b* has its outer side, which engages the hinged section *d*, beveled in correspondence with the bevel upon the inner side of the hinged section, and is formed with a recess *f'* having a shield *e'* to receive the transverse tooth *e* upon the hinged section. The locking member *b* is constructed and adjusted to press normally toward the hinged section when such section is closed, and when unlocked it therefore springs outwardly, as indicated by the dotted line *b'* in Fig. 1.

Inspection of Fig. 1 clearly shows the overlapping of the hinged section upon the side-member *b* when locked thereon, and that it thus directly resists any outward pressure or pull upon the part *b*.

To prevent any lateral displacement of the hinged section when locked upon the side-member *b*, it is preferable that the beveled end of the section *d*, upon its inner face, including the tooth *e* and recess *f*, be made concave in cross section as shown in Fig. 2, and the beveled end of the locking member *b* rounded or convex including its shoulder *e'* and recess *f'*, as shown in Fig. 6. The engagement of such convex and concave portions holds the free end of the movable section in a central position upon the side-portion so that the wires from which the side-portion and hinged section are formed may be in perfect alinement and present a smooth surface to the papers which are held upon the book-ring, so that they may be readily slipped from one side of the book-ring to the

other without obstruction from any projecting portions of the joint.

Book-rings have been formed with a joint arranged reversely to mine so that the pressure upon the body of the ring operates to spring the locking-joint apart, or to unlock the joint and permit the hinged section to swing entirely open. Any springing apart of the joint interferes seriously with the smooth slipping of the papers from one member of the ring to the other, but these disadvantages are avoided in my invention, as any outward pressure upon the body of the ring locks the parts together more firmly, and if the joint is formed with concave and convex surfaces, as shown in Fig. 2, any outward pressure of the locking member tends to hold the parts at the joint rigidly in their normal position.

Having thus set forth the nature of the invention what is claimed herein is:

1. The book-ring herein described having parallel side-portions *a* and *b* with integral foot-portion *c* at the bottom, the side portions being relatively longer than the foot-portion to give them elasticity, the opening section *d* at the top jointed to one of the side portions and its point beveled upon the inner side, the connecting side portion being

correspondingly beveled and the opposed beveled faces provided with means for locking them in engagement, and the overlapping of the section *d* upon the side portion resisting any outward strain upon such side portion when the book-ring is in use.

2. The book-ring herein described having parallel side portions *a* and *b* with integral foot-portion *c* at the bottom, the side portions being relatively longer than the foot-portion to give them elasticity, the opening section *d* at the top jointed to the side portion *a*, and its point beveled upon the inner side and formed with recess *f* and with transverse tooth *e* at the end, the side portion *b* being correspondingly beveled upon its outer side and formed with shoulder *e'* and recess *f'* to engage the recess and tooth upon the section *d*, the overlapping of the section *d* upon the side portion resisting any outward strain upon such side portion when the book-ring is in use.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LUCENA M. MORDEN.

Witnesses:

L. LEE,

THOMAS S. CRANE.