

Oct. 23, 1934.

B. SCHLOSSER ET AL

1,977,897

LOOSE LEAF BINDER

Filed May 1, 1933

2 Sheets-Sheet 1

FIG. 1

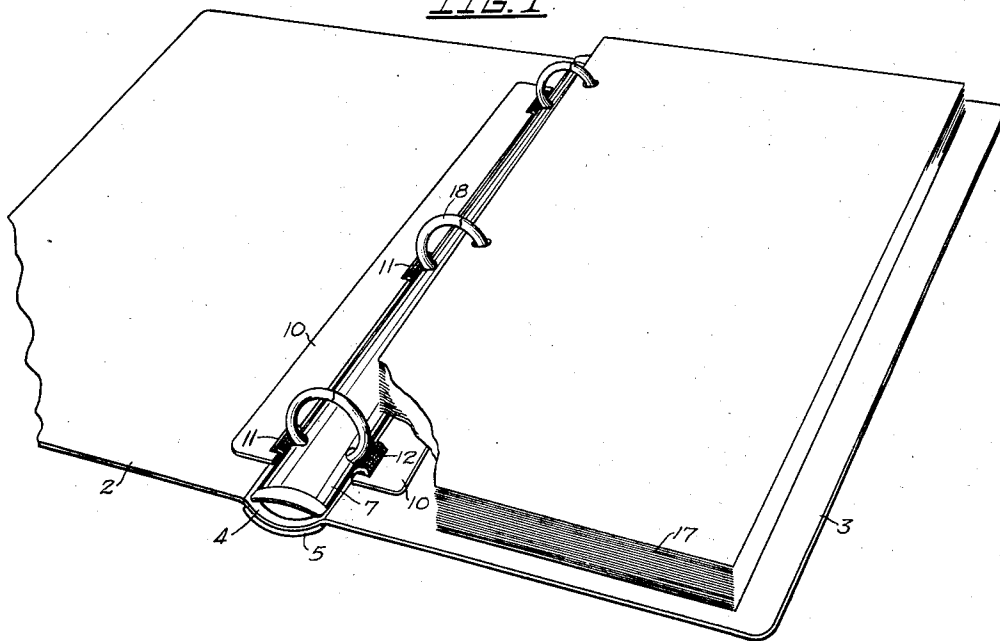
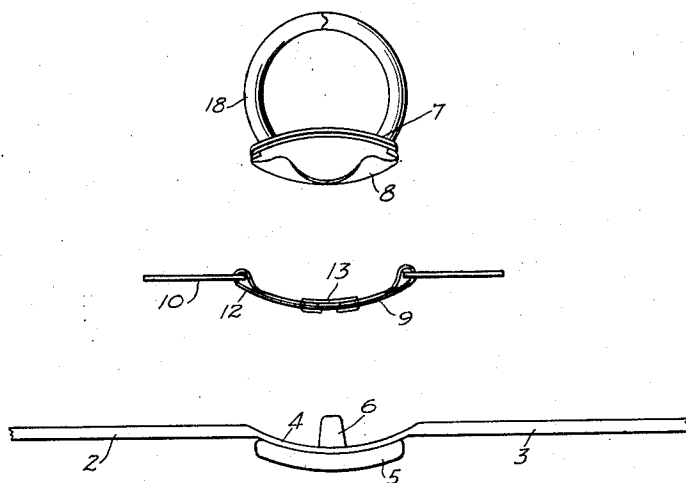


FIG. 2



INVENTORS
BENJAMIN SCHLOSSER
PAUL O. UNGER
BY
Benjamin Schlosser
ATTORNEY.

Oct. 23, 1934.

B. SCHLOSSER ET AL

1,977,897

LOOSE LEAF BINDER

Filed May 1, 1933

2 Sheets-Sheet 2

FIG. 3

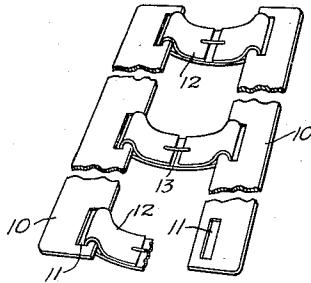


FIG. 4

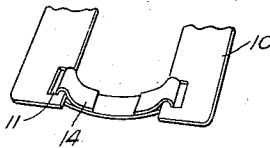
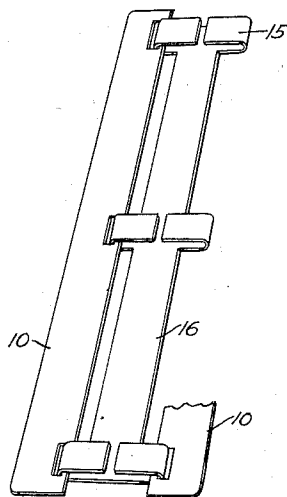


FIG. 5



INVENTORS
BENJAMIN SCHLOSSER
PAUL O. UNGER
BY
Benjamin Schlosser
ATTORNEY.

UNITED STATES PATENT OFFICE

1,977,897

LOOSE LEAF BINDER

Benjamin Schlosser, Chicago, and Paul O. Unger,
Glen Ellyn, Ill., assignors to Wilson-Jones Com-
pany, Chicago, Ill., a corporation of Massachu-
setts

Application May 1, 1933, Serial No. 668,696

9 Claims. (Cl. 129—24)

This invention relates to protectors for loose leaf binders to prevent the rings from pushing through the cover. The constant pressure of the rings against flexible covers soon causes the covers to lose their shape unless some means for protection is provided. Ring protectors for this type of binder have been known for some time, as shown in Patent No. 1,818,999 issued to Edward B. Murphy, August 18, 1931. However, such ring protectors have been objectionable because the ring protector strips remain standing vertically when the covers of the binder are opened, and the sheets contained within the binder cannot lie flat against the covers.

It is an object of this invention to provide a ring protector which will position itself between the covers and the rings when the covers are closed, and will automatically lie flat against the covers when the binder is opened in a horizontal plane. It is a further object of this invention to provide a ring protector unit that may be assembled in a binder with a minimum of labor and expense. It is a further object of this invention to provide an easy and rapid method of assembling a pair of ring protector strips as a unit and later assembling the unit in a binder. It is a further object of this invention to provide a ring protector which may enhance the appearance of the completed binder by harmonizing with the inside of the binder. Other objects of this invention will become apparent upon reading the following description taken in conjunction with the accompanying drawings in which

Figure 1 is a perspective view of a loose leaf binder embodying our invention;

Figure 2 is an exploded elevational view showing the various elements comprising the binder;

Figure 3 is a fragmentary perspective view showing a preferred embodiment of our improved ring protector unit;

Figure 4 is a fragmentary perspective view of a modified form of our improved ring protector unit; and

Figure 5 is a fragmentary perspective view of another modified form of our improved ring protector unit.

In the drawings, the reference numerals 2 and 3 indicate a pair of cover members which are joined by a back section 4. The cover members 2 and 3 and the back section 4 may all be formed of a single piece of leather or artificial leather if desired. A back plate 5 is positioned adjacent the back section 4 by means of a plurality of tongues 6 which project through slots (not shown) in the back section 4. A conventional ring metal

7 is provided with a spring plate 8 having a plurality of slots (not shown) through which the tongues 6 are adapted to be extended. The tongues 6 are bent over against the inner face of the spring plate 8 to clamp the ring metal, back section and back plate together.

The ring protector unit 9 is positioned between the back section 4 and the spring plate 8 of the ring metal. The clinching action of the tongues 6 against the inner surface of the spring plate 8 will cause the interposed ring protector unit to be securely retained in its proper position. The ring protector unit 9 includes a pair of ring protector strips 10 which are preferably formed of vulcanized fiber, but may be formed of metal, celluloid, phenolic condensation products, or any similar material having sufficient toughness and resiliency to prevent the distortion of the covers normally incident to the continued pressure of flexible covers against the rings of a ring binder. The strips 10 may be suitably colored to harmonize with the rest of the binder.

The strips 10 are provided with a plurality of apertures 11 adjacent their inner edges. A plurality of straps 12 have their ends looped through matched apertures 11 in the strips 10. The straps may be formed of metal or any suitable fabric. Bias woven fabric is preferred because of its flexibility and resistance to stretching. The ends of the straps 12 may be secured to each other and to the body portion of the strap by means of a wire staple 13, as shown in Figures 2 and 3. If the use of a wire staple is objectionable, the ends of the strap may be secured by glue or by suitable stitching. In the case of metal straps, the ends may be secured by bending them into contact with the body portion of the strap, as shown at 14, Figure 4.

In Figure 5 the straps 15 are formed as integral lateral extensions of a body member 16 extending parallel to the back section 4. The member 16 is of less width than the ring metal 7 so that the body member is entirely concealed when it is positioned between the ring metal and the back section. The ends of the straps 15 may be secured in any manner above described.

The ring protector units, consisting of a pair of ring protector strips secured to opposite ends of a set of straps, may be assembled as units before the binders are assembled, and may be withdrawn from stock for use as the binders are manufactured. It is necessary only that the ends of the straps are secured with sufficient strength to hold the strips against separation until they

are assembled in the binders. The clinching action of the tongues 6 is sufficient to prevent separation of the ends of the straps after the unit is bound into a loose leaf binder.

- 5 The straps are of sufficient length so that the folded ends thereof extend a predetermined uniform distance from either side of the ring metal.
7. This distance is just long enough to provide room for a free swinging movement of the ring
- 10 protector strips on the straps on which they are hinged, and is short enough to cause the ring protector strips to lie close to the ring metal so as to retain the neat appearance of the loose leaf binder. The strips possess sufficient weight so
- 15 that when the binder is opened in a horizontal plane, as shown in Figure 1, the strips will lie flat against the cover members. This enables the sheets 17 mounted on the rings 18 of the binder to open flat.
- 20 While we have described several embodiments of our invention in detail, it will be understood that the description thereof is illustrative rather than restrictive, as many details may be modified or changed without departing from the spirit
- 25 or scope of our invention. Accordingly, we do not desire to be restricted to the exact construction described except as limited by the appended claims.

We claim:

- 30 1. In a loose leaf binder, a back member, a ring metal, a pair of ring protector strips, each of said ring protector strips being provided with an aperture adjacent its inner edge, and a strap
- 35 looped through said apertures to prevent separation of said ring protector strips, said strap being clamped between said back member and said ring metal.
- 40 2. In a loose leaf binder, a ring protector consisting of two strips provided with apertures adjacent their inner edges and a strap threaded through said apertures, the end loops of said strap being closed to prevent the separation of either strip from said strap.
- 45 3. In a loose leaf binder, a ring protector consisting of two strips provided with matched apertures adjacent their inner edges, and a strap looped through each pair of matched apertures, the end loops of said straps being closed.

4. In a loose leaf binder, a back member, a ring metal, a plurality of straps extending transversely of said ring metal and having closed loops projecting beyond opposite edges thereof, and a pair of strips loosely hinged to said straps by means of said closed loops.

5. In a loose leaf binder, a pair of covers, a back member, a ring metal, a plurality of straps clamped between said back member and said ring metal and having closed loops projecting beyond opposite edges of said ring metal, and a pair of strips loosely hinged to said straps by means of said closed loops, said strips being of sufficient weight to lie flat against said covers when said binder is opened with the covers in a horizontal plane.

6. In a loose leaf binder, a ring protector consisting of a pair of fiber strips provided with matched apertures adjacent their inner edges, and a flexible strap threaded through each pair of matched apertures, each of said straps having its ends secured together.

7. In a loose leaf binder, a ring protector consisting of two strips having matched apertures adjacent their inner edges, and a flexible strap threaded through each pair of matched apertures, the ends of said strap being stitched to the body of said strap.

8. In a loose leaf binder, a back member, a ring metal, a pair of ring protector strips positioned on opposite sides of said ring metal, said strips being provided with a plurality of apertures adjacent their inner edges, and a plurality of flexible straps each having one end looped through an aperture in one strip and its other end looped through an aperture in said other strip, said straps being clamped between said ring metal and said back member.

9. In a loose leaf binder, a ring protector including a body portion provided with a plurality of straps projecting laterally from said body portion, and a pair of protector strips provided with apertures adjacent their inner edges, said straps having their free ends looped through said apertures.

BENJAMIN SCHLOSSER.
PAUL O. UNGER.

50

55

60

65

70

75

80

85

90

95

100

105

110

115

120

125

130

135

140

145

150