

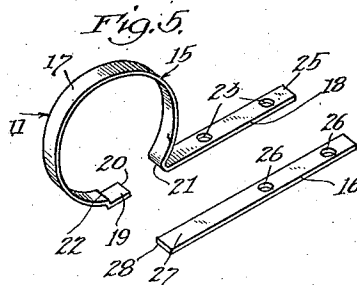
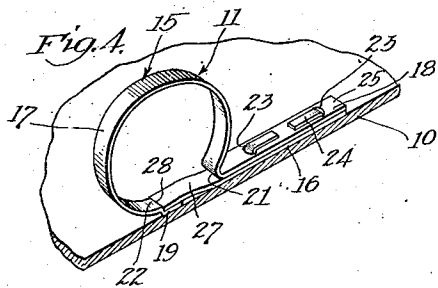
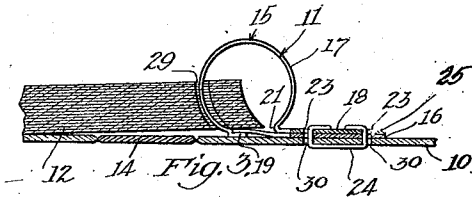
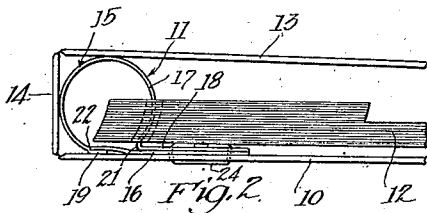
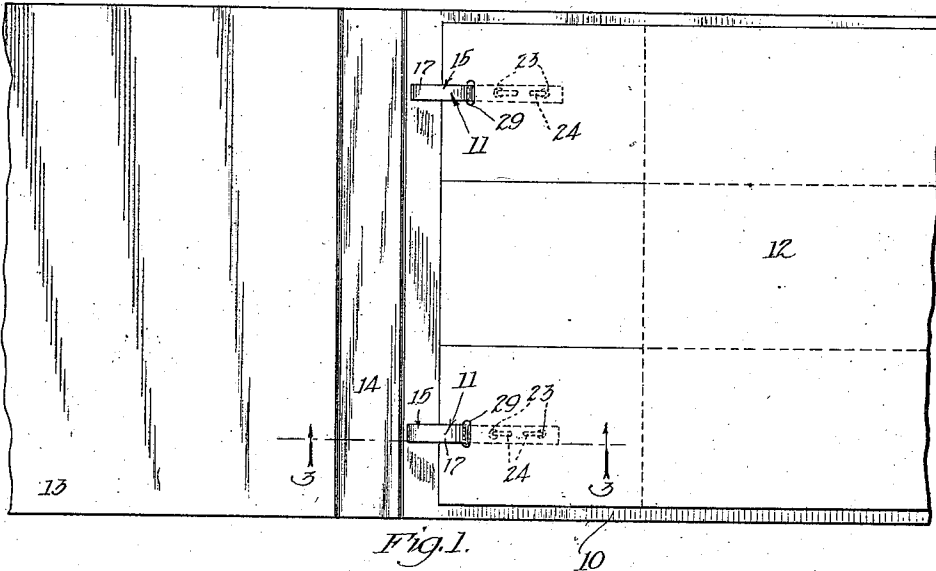
Aug. 9, 1927.

A. B. PLUSHKELL

1,638,784

LOOSE LEAF BINDER

Filed Dec. 10, 1923



Inventor:
August B. Plushkell.
by *[Signature]*
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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER.

Application filed December 10, 1923. Serial No. 679,625.

This invention embraces improvements in loose leaf binders; and, while the loose leaves bound by it may be removed, in case of necessity, without injuring the binder, it is intended as a binder for permanent records which do not require subsequent removal after being bound.

One of the foremost objects of this invention is the provision of such a binder which is extremely simple and inexpensive to manufacture; possessing all the advantages of a loose leaf ring binder, yet one which can be produced at a fraction of the cost of most of those now in general use.

This binder has been designed primarily for use in binding blank bank checks in loose leaf form, although of course, it need not be limited to this particular field. However, the advantage and convenience of having blank checks bound in loose leaf form, has prompted me to perfect this idea. The advantages I have in mind are the convenience of a binder wherein the checks will always lie flat; and also the arrangement whereby the check stubs may always be easily examinable and their backs used for memoranda and suitable entries, which is common practice.

It is well known that banks make a practice of furnishing their depositors with blank check books free of charge. Therefore, the necessity of providing them cheaply, and as with my type of binder, one which will cost no more, or even less, than the usual type of permanent binder. Also, when books having two or more blank checks to the page are furnished, the depositor usually has his name and address printed on each check, which is also done by the bank free of charge. This practice prohibits such books from being bound up in large quantities, to cheapen the cost, although the usual form of blank checks are generally printed in quantity, and left unbound until after the imprinting of the name is finished in each case.

Under these circumstances I have provided a type of ring binder in which the blank checks may be secured, after the imprinting is completed, with a minimum of time and expense. Also the several parts of my binder may be produced in quantity all ready for immediate assembly and ready for use, when the leaves are attached.

The characteristics of my improvement include a leaf securing member which can be

passed through the perforations in a thick pad of loose leaves at one time, and a single locking arrangement which prevents accidental dislodgment or removal of individual leaves, yet from which they can be removed if desired. Also the ring portion may be made substantially circular to facilitate opening and closing and turning of leaves which otherwise would bind in case of straight sided or U-shaped loops.

The merits and advantages of my improvement will be more fully set forth in the following specification, reference being made therein to the accompanying drawings, wherein I have illustrated the preferred specific form, and in which,

Figure 1 is a fragmentary top plan view of an open binder, showing the manner in which the invention is applied;

Fig. 2 is an enlarged fragmentary end elevation of the binder when closed;

Fig. 3 is an enlarged sectional view taken as indicated by the line 3—3 of Fig. 1;

Fig. 4 is a further enlarged fragmentary perspective view showing my improved securing member assembled and attached to the base; and

Fig. 5 is a perspective view of the ring securing member and locking bar before being assembled and secured to the base.

Essentially, my invention comprises a base member 10 to which a plurality of the securing members 11 are removably attached to loosely bind a plurality of individual leaves 12. Ordinarily, the base 10 will form the back cover of a binder covering having also a top cover 13 secured to it by a flexible back portion 14, so this covering may be opened and closed in the usual manner. In some cases, however, it may only be desirable to use the base 10 without the attachment of the top cover 13 and back portion 14. This cover portion is important in my arrangement only in so far as one of the covers provides a base upon which the securing members 11 are mounted or attached. When used in connection with the binder covering, comprising the front and back covers 13 and 10, respectively, and back portion 14, the securing members 11 will be mounted so that when the covers are in closed relation, as shown in Fig. 2, the flexible or connecting back portion 14 will rest against the inner ends, as illustrated.

Any number of the securing members 11 may be used; in some cases one being suffi-

cient, while in other cases two or more may be preferred, depending entirely upon the use to which the binder is put. The binder covering or base 10, may be constructed of any suitable material usually used for such work, such as pasteboard or other binding materials. The usual type of pasteboard provides a suitable base and is amply strong for the purpose.

10 The securing members 11 are composed of two portions which I will hereinafter refer to as the ring portion 15 and the locking member 16. Both of these may be stamped out of sheet metal or formed of the usual type of ribbon metal, bent to the desired configuration. The ring portion 15 is bent in the manner illustrated to form the ring 17 integral with a securing portion 18. The ring 17 is bent upwardly to extend above the plane of the securing portion 18; its free end 19 being terminated to extend a little below the plane of the securing portion 18 with its inner edge 20 spaced a short distance from the shoulder 21 formed by the juncture of the ring 17 with the securing portion 18. The end 19 is flat for a short distance, being adapted to rest upon the base 10; extending substantially tangential to the ring 17 and slightly offset relative thereto to form a shoulder 22. Apertures 23 are punched in the securing portion 18 through which the ends of a staple 24 may be extended and bent over, for securing it to the base, as and in the manner illustrated.

25 The locking member 16 is formed of ribbon metal of substantially the same width as the member 15 and ordinarily of a length equal to the distance between the shoulder 22 and the end 25 of the securing portion 18. This locking member or bar also has apertures 26 punched and spaced to register with apertures 23, in the securing portion 18, and through which the ends of the staple 24 extend to rigidly join these two members together and to the base 10.

30 When the members 15 and 16 are mounted upon the base, the locking member 16 is intermediate the base and the securing member 18 with its free end 27 extending across the gap between the edge 20 and shoulder 21 and resting upon the top face of the portion 19 with its end edge 28 abutting against the shoulder 22, as illustrated in Fig. 4. The end 27 of the locking member 16, resting upon the portion 19 and abutting against the shoulder 22, forms practically a continuation of the ring portion 17 so that the leaves 12 will not catch thereon when thrown over to the different positions illustrated in Figs. 2 and 3. The locking member 16 prevents the loose leaves 12 from slipping off the free end of the ring 17 when in the position illustrated in Fig. 3. This is essential on account of the necessity of leaving the gap in the ring 17 so that its

end 19 may be easily and quickly passed through the perforations 29 in a thick pad of the leaves 12, at one time. By providing this securing member so that it may be readily passed through the perforations 29 in a thick pad of the leaves 12, at one time, a great saving in time and expense is effected in assembling and finishing the binder. Also, by forming the locking member or bar 16 and the ring portion 15 separately a great saving in the cost of manufacture of these members is effected, in addition to providing a convenient arrangement for assembling.

While under ordinary circumstances it will be preferred to form the members 15 and 16 of a flat ribbon metal, the construction need not necessarily be limited to this. However, the flat metal ring affords the greatest bearing surface and is not so liable to tear out the apertures 29 as are rings ordinarily formed of wire. Also, in my preferred form, I find it desirable to form the ring 17 substantially circular; that is, the whole as nearly circular as possible in order to facilitate throwing the loose leaves from the position shown in Fig. 2 to that shown in Fig. 3 and vice versa, and to eliminate binding of the leaves as commonly occurs when these rings are formed with straight sides or U-shaped.

The backing member 16, due to this means of attachment, not only closes the gap in the bottom of the ring 17, to form a substantial continuation thereof, but it also holds its free end 19 down in close contact with the face of the base 10. The member 16 is formed straight so that when attached, as shown, it is slightly sprung, thereby forcibly holding the end 19 in contact with the base and making the ring 17 more rigid relative thereto.

In manufacturing the binder, the bases or cover portions and the members 15 and 16 are made up in large quantities to economize on cost and are not assembled until the loose leaves 12 are printed, as desired. To assemble the binder, a comparatively thick pad of the loose leaves 12, are piled with their perforations 29 in register, after which the free end 19, of the member 15, is slipped through these registering perforations, the locking member 16 is then adjusted to place by resting its end 27 upon the portion 19 and bringing its opposite end up against the under face of the securing portion 18 with its perforations 26 in register with the perforations 23. Apertures 30 are punched in the base 10, through which the free ends of the staple 24 are inserted, and thence through the registering apertures 23 and 26 of the members 16 and 18, respectively, after which these free ends are bent over, as shown in Figs. 3 and 4, rigidly securing the whole to the base 10.

If it should be desired to remove any of the leaves 12, the free ends of the staple 24 may be bent upwardly and the securing member removed from the base, after which
 5 the locking member 16 may be quickly removed and any of the leaves then removed from the free end 19 of the ring 17. However, it is not contemplated that it will ordinarily be desired to remove any of the leaves
 10 12 after they are once bound together.

While I have herein shown and described the preferred specific embodiment of my invention, I nevertheless reserve the right to make such changes or modifications in structure as will come within the scope of the
 15 appended claims.

What I claim is:

1. In a device of the character described, the combination with a base, of a leaf-re-
 20 taining member comprising a ring portion and means to secure it to the base, there being a gap in the bottom of the ring portion adjacent the base, and a member adapted to be secured in place to close said
 25 gap.

2. In a device of the character described, the combination with a base, of a leaf-re-
 retaining member comprising a ring portion and a securing portion, there being a gap in
 30 the ring portion at its bottom, and a member adapted to be secured between said securing portion and the base and to extend across and close said gap.

3. In a device of the character described,
 35 the combination with a base, of a leaf-retaining member comprising a ring portion and means to secure it to the base, there being an opening into the ring portion where-

by it may be passed through registering perforations in a thick pad of leaves, and separate means attachable to its securing means to close said opening, to prevent removal of the leaves.

4. In a device of the character described, the combination with a base, of a leaf-re-
 45 taining member comprising a ring portion and a securing portion, said member being formed by bending one end of the securing portion upwardly in the form of a ring, leaving a gap in its bottom between its free
 50 end and its junction with the securing portion, and a member adapted to be secured between said securing portion and the base and to extend across the gap and overlie the free end of the ring portion.
 55

5. In a device of the character described, the combination with a base, of a leaf-re-
 taining member comprising a ring portion and a securing portion, said member being
 60 formed by bending one end of the securing portion upwardly in the form of a ring, leaving a gap in its bottom between its free end and its junction with the securing portion, and a member adapted to be secured
 65 between said securing portion and the base and to extend across the gap and overlie the free end of the ring portion, the free end of the ring portion being provided with a flat portion to rest against the base and a
 70 shoulder against which the end of the locking member abuts.

In witness that I claim the foregoing I have hereunto subscribed my name this 14th day of September, 1923.

AUGUST B. PLUSHKELL.