

No. 863,888.

PATENTED AUG. 20, 1907.

W. M. WHEILDON.
LOOSE LEAF BINDER.
APPLICATION FILED JAN. 25, 1907.

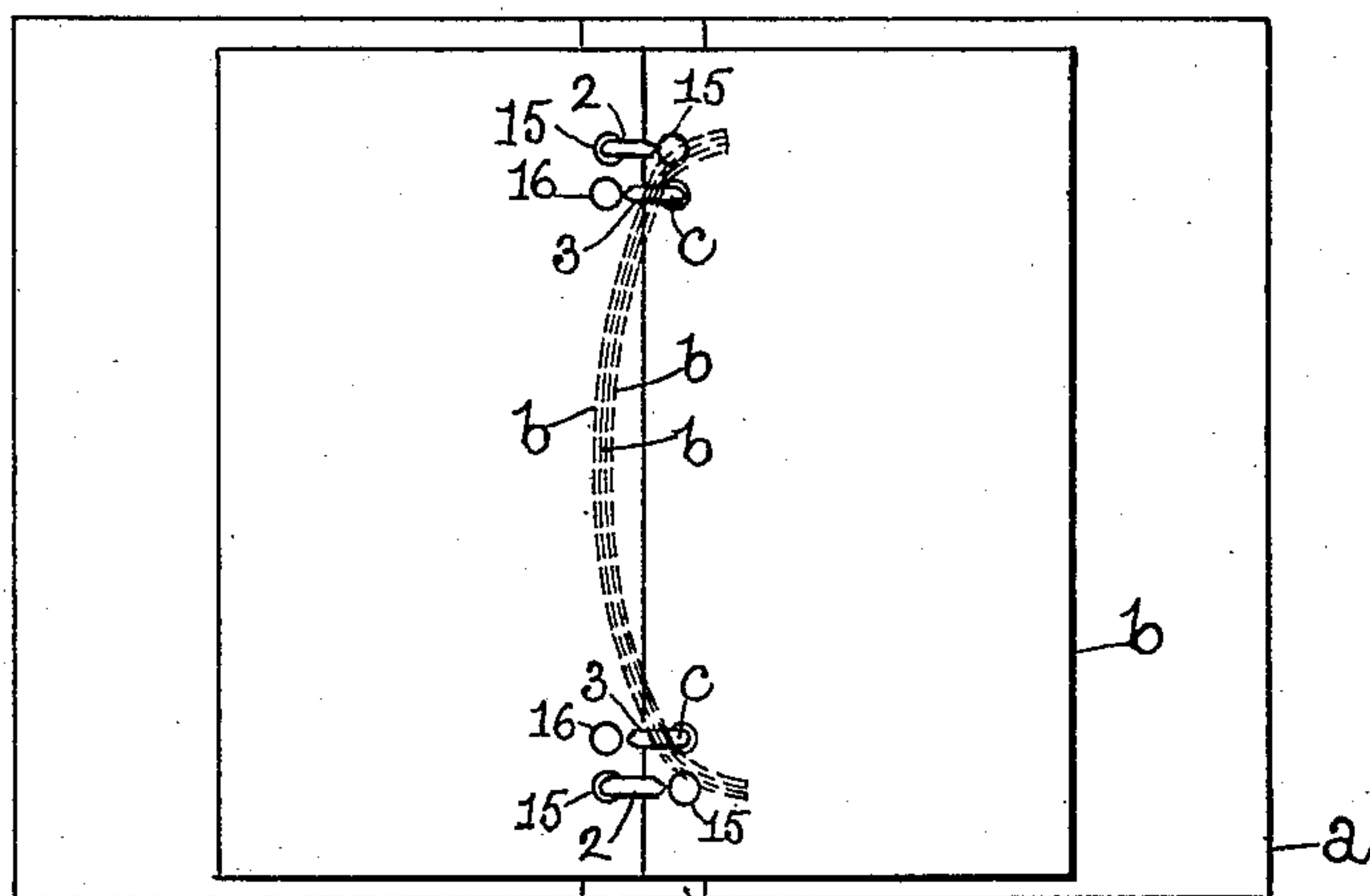


Fig. 1.

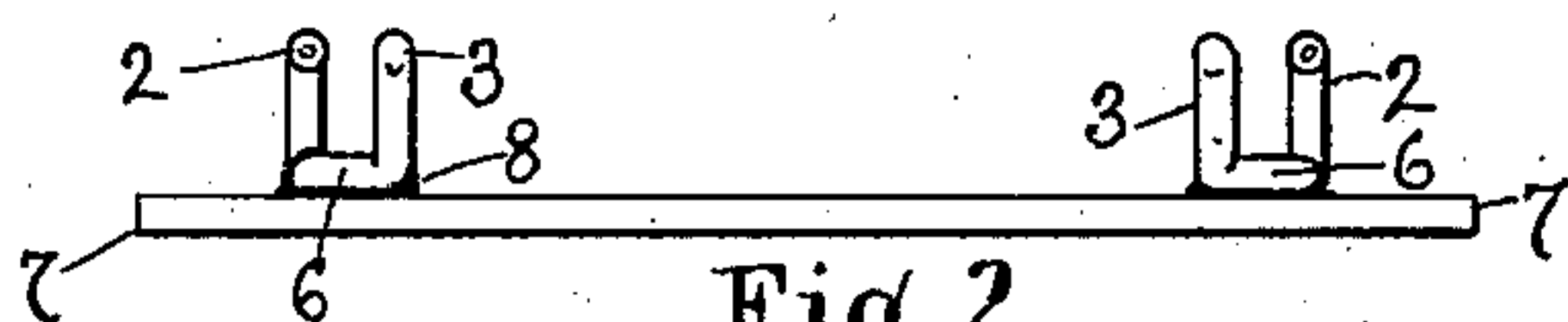


Fig. 2.

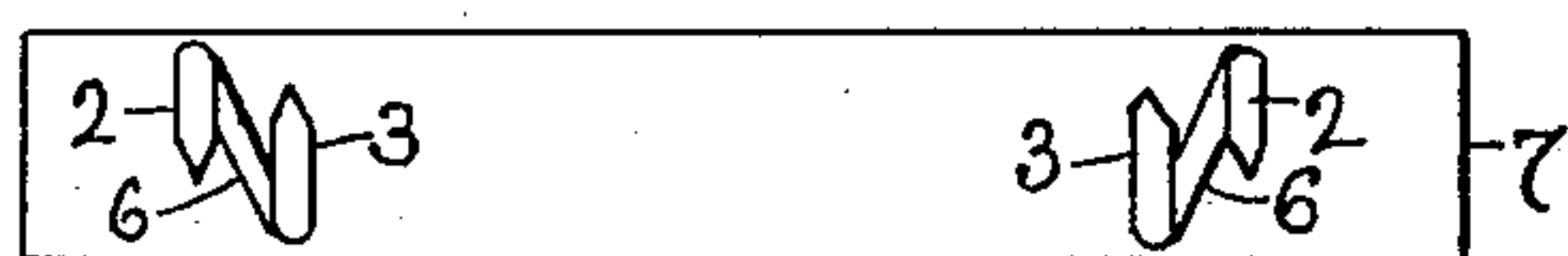


Fig. 3.

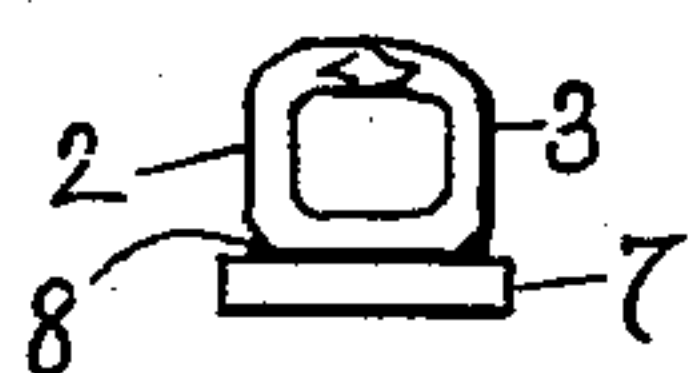


Fig. 4.

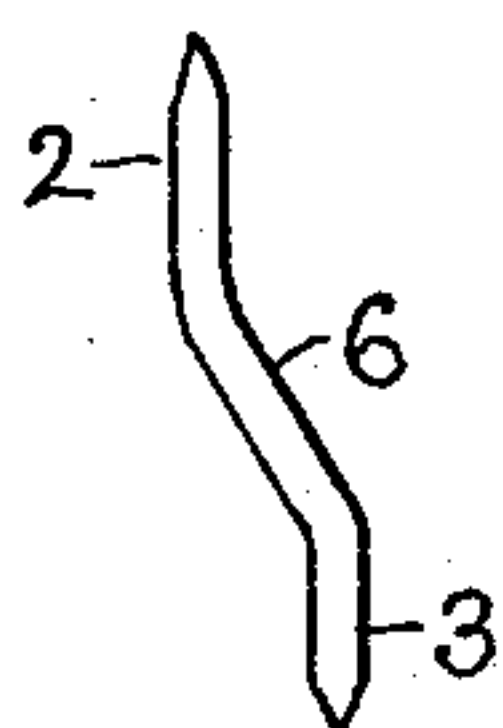


Fig. 5.

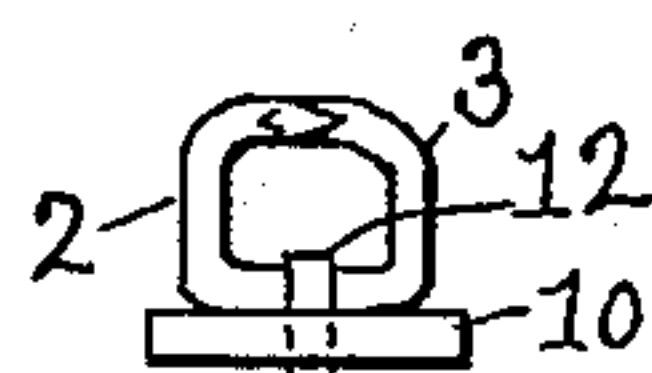


Fig. 6.



Fig. 7.

Witnesses.
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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER.

No. 863,888.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed January 25, 1907. Serial No. 353,937.

To all whom it may concern:

Be it known that I, WILLIAM MAXWELL WHEILDON, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have
5 invented an Improvement in Loose-Leaf Binders, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a loose leaf binder for the
10 loose leaves of books, etc., and is an improvement upon the binder shown and described in U. S. Patent No. 814,492 granted to me March 6, 1906.

The present invention has for its object to provide a simple, inexpensive and efficient loose leaf binder
15 of the class referred to, with which the leaves or cards are prevented from being disengaged from the binder in the ordinary work, yet which permit a number of leaves or cards to be removed from and engaged with the binder at one time or operation. For this purpose
20 the binder is composed of substantially parallel arms extended toward each other with their ends overlapping, said arms being separated from each other a distance sufficient to permit of the engagement with or disengagement from them of a plurality of leaves or
25 cards at one operation or time. The substantially parallel arms may be made of separate pieces, preferably of metal, either flat or round, or they may be made from a single piece of metal as may be preferred. The binder arms may be secured to a back plate or
30 piece, so as to be permanent therewith, or they may be detachably secured thereto or to the cover for the book. These and other features of this invention will be pointed out in the claims at the end of this specification.

35 Figure 1 represents in plan one form of book having its leaves or cards secured by a binder embodying this invention. Fig. 2, a front elevation of the binder shown in Fig. 1. Fig. 3, a plan of the binder shown in Fig. 2. Fig. 4, an end elevation of the binder shown
40 in Fig. 2. Fig. 5, a detail to be referred to, and Figs. 6 and 7, modifications to be referred to.

Referring to the drawings *a* represents the cover of a book having loose leaves or cards *b*, which are retained by binders *c*, located near the ends of the
45 book as herein shown. The binders *c*, in accordance with this invention, are composed of two bent or curved arms 2, 3, which are arranged substantially parallel and extend toward each other with their free ends overlapping (see Figs. 1 and 3), said arms
50 being separated from each other a distance sufficient to permit a plurality of leaves or cards *b* to be engaged with and removed from the binder at one operation, as will be described. The arms 2, 3, may be made from a single piece or blank (see Fig. 5), which may

be flat, round or other shape in cross section, and in
55 which the arms 2, 3, are shown straight and offset, being joined by an intermediate portion 6, which is inclined with relation to said arms. The binder *c* when made from a single piece of metal, may be permanently secured to a back plate 7 by soldering the
60 intermediate portion 6 thereto, the solder being represented in Fig. 2, by the heavy black line 8. Instead of permanently securing the binder to the back plate, it may be detachably secured thereto, and if desired, the back plate may be omitted and
65 the binders secured to the back 10 of the book by separate fastening means, represented in Fig. 6, as a staple or McGill fastener 12. Furthermore the arms 2, 3, of the binder may be made separate from each other as represented in Fig. 7, and each secured to
70 the back plate 7, or it may be the back 10 of the book, in any suitable or desired manner. In the present instance, the independent arms 2, 3, are represented in Fig. 7 as secured to the plate 7 by nuts 14.

It will be observed that the arms 2, 3, of the binder
75 are arranged substantially parallel to and overlap each other, and that they may be separated from each other any desired distance within limits, so as to permit a substantially large number or plurality of leaves or
80 cards *b* to be simultaneously engaged with or removed from the binder, while at the same time the binder arms prevent disengagement of the leaves or cards, when the latter are turned in the ordinary work. So
also it will be observed that the binder may be used
85 in connection with a plate 7 or they may be used independently thereof, and may be secured directly to the back of the book in any desired position thereon. The cards or leaves *b* are provided with two holes or openings 15, 16, for each binder, the hole 15 coöperating
90 with the arm 2 and the hole 16 coöperating with the arm 3. These holes may be made round or of other shape to correspond to the shape in cross-section of the binder arms.

I may prefer to make the binder arms of round wire as represented herein, as by so doing, the holes 15, 16 in
95 the card may be made with the punch now commonly found in the market and the construction of a special punch is avoided.

In placing a card or a series of cards in the book, the card or cards is bent or curved as indicated by dotted
100 lines in Fig. 1, and its ends are placed between the arms 2, 3, of the binders until the holes 16 are opposite to or in line with the arms 3, whereupon the card is moved toward the arms 3 until the latter enter the holes 16, after which the card is straightened to bring
105 the holes 15 in line with the arms 2.

When it is desired to remove a card or leaf from the book, the said card is turned up into a vertical position

and its ends bent to disengage it from the arms 2, after which the bent ends of the card are moved through the space between the arms 2, 3, until the card is removed from the arms 3. In the same manner a plurality of
 5 cards or leaves *b* may be simultaneously removed from or engaged with the binder arms, as the space between the parallel arms is such as to permit of the passage of more than one card, and this space may be of any de-
 10 sired width within limits, while at the same time the cards may be turned back and forth in the ordinary work without danger of being disengaged from the books, by reason of the binder arms overlapping, which insures the card being engaged with one binder arm as
 15 vice versa.

In the present instance I have shown the invention as applied to a book wherein two binders are employed, but in practice any desired number of binders may be employed and used with any desired size of book, and
 20 when used on a large book the portions of the cards or leaves engaged with each binder may be disengaged therefrom independently of the others.

Claims.

1. In a binder of the class described, in combination, a
 25 plate, a one piece binder comprising substantially parallel bent or curved arms and an intermediate portion inclined with relation to said arms to space them apart, said arms being substantially parallel and extended toward each other so as to overlap, and means to secure said binder
 30 to said plate, substantially as described.

2. In a binder of the class described, in combination, a plate, a binder secured thereto and comprising substan-
 35 tially parallel bent or curved arms separated from each other a distance sufficient for the passage between them of a plurality of cards or leaves, and overlapping each other to prevent disengagement of said cards in ordinary work,

and means to secure said binder to said plate, substan-
 tially as described.

3. In a binder of the class described, in combination, a plate, a binder secured thereto and comprising substan- 40
 tially parallel bent or curved arms separated from each other a distance sufficient for the passage between them of a plurality of cards or leaves, and overlapping each other to prevent disengagement of said cards in ordinary work, and means to detachably secure said binder to said plate, 45
 substantially as described.

4. In a binder of the class described, substantially par-
 allel arms comprising upright portions and bent or curved end portions separated from each other a distance suffi- 50
 cient for the passage between them of a plurality of cards or leaves and extended at an angle to said upright portions in substantially parallel planes and toward each other to overlap and prevent disengagement of said cards or leaves in ordinary work, substantially as described.

5. In a binder of the class described, in combination, 55
 substantially parallel bent or curved arms separated from each other and having their free ends overlapping, and an intermediate portion integral with said arms and inclined with relation thereto, substantially as described.

6. In a binder of the class described, in combination, 60
 two bent or curved arms out of line with each other and comprising substantially straight portions and end portions extended in substantially parallel planes toward each other to overlap and at an angle to said straight portions, substantially as described. 65

7. In a binder of the class described, in combination, two bent or curved arms out of line with each other and comprising upright portions and end portions extended in substantially parallel planes toward each other to overlap, and means to connect the upright portions of said arms 70
 together, substantially as described.

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

WILLIAM MAXWELL WHEILDON.

Witnesses:

JAS. H. CHURCHILL,
 J. MURPHY.