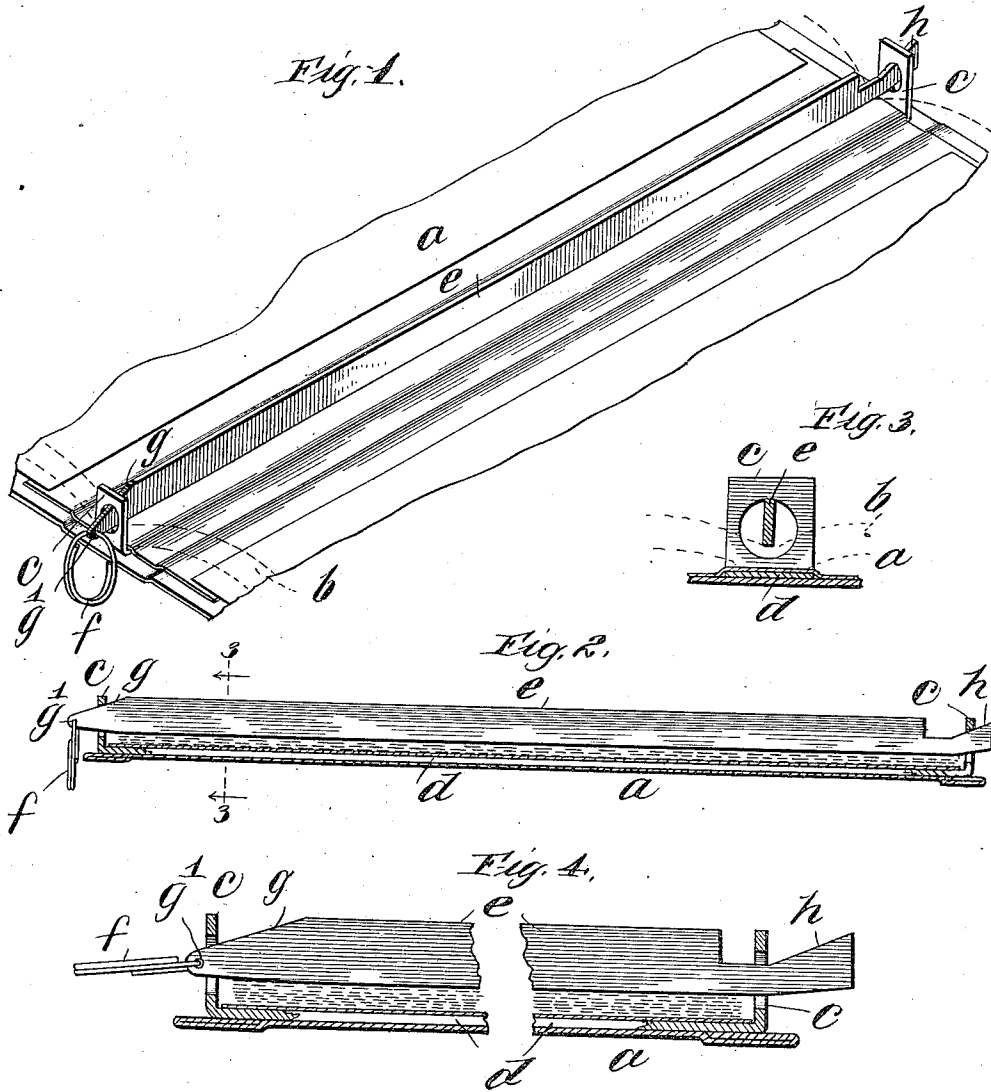


R. J. NICHOLSON.
BOOKBINDER.
APPLICATION FILED APR. 13, 1907.

1,045,168.

Patented Nov. 26, 1912.



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UNITED STATES PATENT OFFICE.

ROBERT J. NICHOLSON, OF CHICAGO, ILLINOIS.

BOOKBINDER.

1,045,168.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed April 13, 1907. Serial No. 367,933.

To all whom it may concern:

Be it known that I, ROBERT J. NICHOLSON, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Bookbinders, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in book binders, and, in its preferred form, is an improvement upon the device shown in my re-issued Letters-Patent dated February 12, 1907, and numbered 12,606, though the scope of my invention is not to be considered as embracing devices that are merely improvements upon the invention of my said patent.

In my present invention, the two elements or portions that are insertible between the leaves of the book, so as to engage each end of the book, are made into a unitary structure to facilitate the disposition of the book within its temporary cover.

In practising my present invention, I employ a strip, rod or bar of some suitable material, preferably steel, which is adapted to be inserted at its ends through openings provided in upwardly extending arms projecting from the element that is adapted to engage the back of the book, and between which arms the book is adapted to be interposed, so that the book is particularly well bound in place where said bar projects through the arms and is substantially well fixed in position at the intermediate portions of said bar.

I will explain my invention more fully by reference to the accompanying drawing, showing the preferred embodiment thereof, in which—

Figure 1 is a view in perspective of a device embodying my invention, a book being shown in outline as being held in place by said device. Fig. 2 is a longitudinal sectional view taken through the book where the device of my invention is located. Fig. 3 is a cross-sectional view on line 3 3 of Fig. 2. Fig. 4 is an enlarged sectional longitudinal elevation, partly broken away, showing the device released from the book.

Like parts are indicated by similar characters of reference throughout the different figures.

The back element *a* preferably constitutes

a separable cover designed to engage the backs of books, such as pamphlets, magazines, etc., a pamphlet *b* being shown provided with such a covering. In order that this back element may engage the back of a book, it is preferably provided with upwardly extending arms *c*, secured to the back element in any suitable way. In the preferred embodiment of my invention, these upwardly extending arms *c* constitute the angular ends of a metal strip *d*, which is caused to form a part of the back element *a*, as indicated particularly in Figs. 2 and 3. The arms *c* are provided with openings therein for the passage of a bar *e*, preferably of metal and desirably oblong in cross-section to make it flat. The bar *e* is so shaped that it may be moved longitudinally, in order to effect its passage through the arms *c*, the bar *e* after having been passed through the arms *c* (it being understood that the bar *e* is interposed between the leaves of the book that is to be held in place, and that said book is interposed between the bar and the back element *a*) being movable to a limited extent only in one direction, whereby said bar is permitted to project outwardly to a limited extent only, whereupon a fastening device, such as the open spiral ring *f*, may be employed to hold the locking bar *e* in place to retain it in engagement with both arms *c*. In order that these results may be accomplished, I preferably form the bar *e* in some such shape as that indicated. I have secured good results by shaping the end *g* in the form of a wedge. This end of the bar *e* is permitted to project outwardly to a limited extent only, by reason of its engagement with the metal of the arm *c* through which this end is passed, the smaller end of the wedge being at the extremity of the bar, which extremity is provided with an aperture *g*¹ adapted to receive the locking ring *f*, though I do not wish to be limited to this construction for limiting the outward projection of the end *g* of the bar. I do not wish to be limited to the illustrated locking facilities afforded for holding the bar *e* and the arm engaging the same in connection. In order that the bar *e* may be readily placed in position, it is reduced at its other end *h* so that the bar, in the form of the invention shown, may first have the end *h* inserted through the associate arm *c*, in order that the end *g* may be brought before the

opening in its associate arm *c*, constituting the preferred shape and portion of the back element *a* provided with an opening for receiving the end *g*, whereafter the bar *e* may be moved to project the end *g* outwardly and to permit the fastening means *f* to be brought into play. The end *h* of the bar may be projected through its associate arm considerably farther than the end *g* to permit of the simultaneous engagement of the bar with the arms *c* when the end *g* is passed through its associate arm *c*.

I preferably form both ends of the bar with wedging surfaces, as indicated, so that when the bar is moved into position to bind the book, these wedging surfaces will engage the arms, thereby to depress the bar against the book. This result is partially secured by wedge shaping one end of the bar, though I prefer to wedge shape both ends of the bar, to increase the efficiency of the device.

I consider it to be broadly new with me to provide a bar *e*, preferably integrally formed throughout, adapted for insertion between the leaves of a book and to engage the back element that is to constitute the cover of the book, this back element and the said bar being so inter-related that after the bar is placed between the leaves of the book, it may be moved in one direction outwardly to engage it at one end with the back element and thereafter may be moved in the reverse direction to engage its other end with said back element.

I use the term "bar" herein in the sense of any element, irrespective of its shape in cross-section, that is adapted to perform the functions herein specified.

I am aware that it is old to provide bars for fastening books and book covers together, but my invention herein is broadly distinguishable from prior constructions, in that with the prior constructions it was impossible to place the bar between the leaves of a book and to move the bar in one direction, in order to engage it with the cover at one end of the bar and thereafter to move the bar in the other direction to engage it with the cover at the other end of the bar.

By means of my invention, it will be seen that the book is very securely held in place within its cover, by reason of the very secure engagement that is afforded for the ends of the bar *e*. I do not believe that this efficiency has been secured by any devices of the prior art.

In the embodiment of the invention as illustrated, the bar *e* is flat, and, when in place, it is journaled in the arms *c*. By journaling the bar (whether the bar is removable or not removable, and whether or not it is shaped as described), the pamphlets may be inserted and removed by giving

the bar a quarter turn, and this feature I desire to claim broadly.

It is to be understood that the bar, when acting to hold the hook and back together, lies substantially parallel to the leaves of the book when the book is closed.

I use the term "flat bar" in the sense that the bar in cross-section, has a dimension in one direction greater than its dimension in the perpendicular direction, irrespective of whether or not the bar presents perfectly flat faces.

It will be seen that I have provided in the device of the class described a back element *a*, a bar *e* for holding books therein, said bar being adapted for engagement at one end with said back element *a* when moved in one direction and adapted to be engaged at its other end *a* when moved in a reverse direction, the latter end of said bar *e* being so shaped as to permit its movement in said reverse direction to a limited extent only whereby the bar *e* will be held simultaneously at both ends, and a locking device *f* for securing the relation of the bar *e* and back element *a* when said bar is thus united at both of its ends with the back element.

As hitherto stated, the back element is preferably provided with upwardly extending arms *c* secured thereto in any suitable way, these arms *c*, in the preferred embodiment of the invention, constituting the angular ends of the metal strip *d*, which is caused to form a part of the back element *a*, as indicated particularly in Figs. 2 and 3.

Having thus described my invention, I claim as new and desire to secure by Letters-Patent:—

1. A device of the class described comprising a back element provided with upwardly extending arms, a flat bar mounted at its ends to turn in said arms, whereby the bar may occupy different planes to permit of the insertion, removal and the holding of books, the book to be held being insertible between the bar and the back element.

2. A device of the class described comprising a back element, a flat bar mounted at its ends upon said back element and there adapted to turn, whereby the bar may occupy different planes to permit of the insertion, removal and the holding of books, the book to be held being insertible between the bar and the back element.

3. A device of the class described comprising a back element, a flat bar mounted upon said back element, the mounting for the bar permitting the bar to turn to permit the bar to occupy different planes, whereby to permit of the insertion, removal and the holding of books, the book to be held being insertible between the bar and the back element.

4. A device of the class described includ-

ing a back element provided with upwardly
extending arms having openings, and a bar
in wedging engagement with said back ele-
ment and adapted to have its ends disposed
5 in said openings at the same time in order
to hold a book, one end of the bar being
adapted to be projected through the arm
opening receiving the same while the other
end of the bar remains within the arm open-
10 ing receiving it, this latter end of the bar
being movable in its arm opening to such an
extent as to permit the former end of the
bar to be withdrawn from the arm opening
receiving it.

15 5. A device of the class described includ-
ing a back element provided with upwardly
extending arms having openings, and a bar
in wedging engagement with both arms of

said back element and adapted to have its
ends disposed in said openings at the same 20
time in order to hold a book, one end of the
bar being adapted to be projected through
the arm opening receiving the same while
the other end of the bar remains within the
arm opening receiving it, this latter end of 25
the bar being movable in its arm opening to
such an extent as to permit the former end
of the bar to be withdrawn from the arm
opening receiving it.

In witness whereof, I hereunto subscribe 30
my name this 13th day of February A. D.,
1907.

ROBERT J. NICHOLSON.

Witnesses:

G. L. CRAGG,

LEON G. STROH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."