Jan. 3, 1928.

1,655,017

T. F. LEAHY

BINDER

Filed March 25, 1926

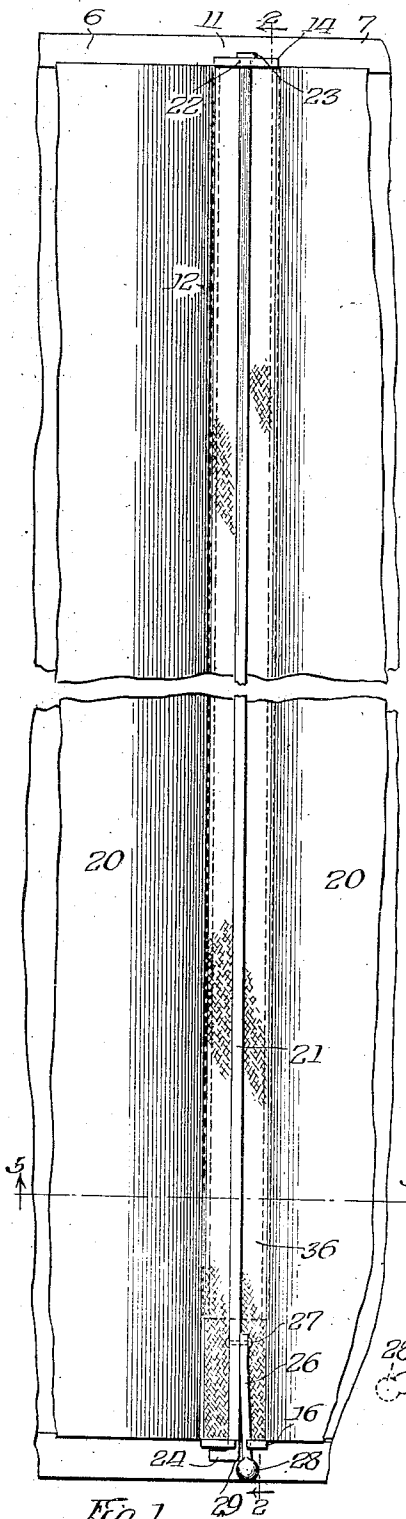


Fig. 1

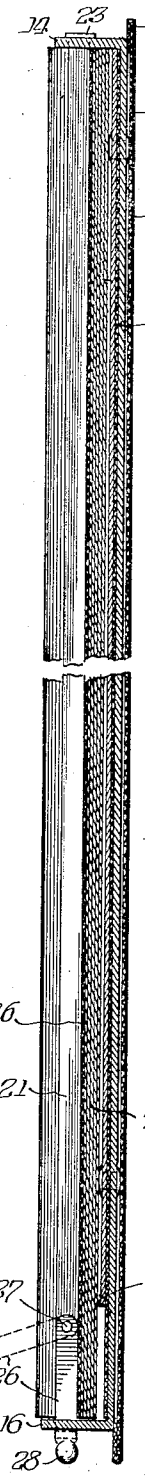


Fig. 2

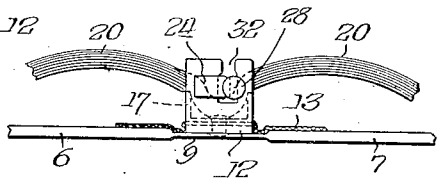


Fig. 3

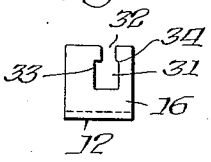


Fig. 4

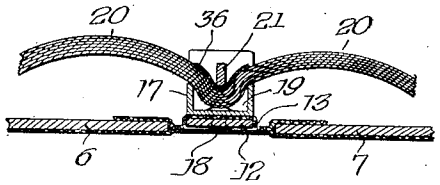


Fig. 5

Inventor:
Thomas F. Leahy
By Ira J. Wilson
Atty

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UNITED STATES PATENT OFFICE.

THOMAS F. LEAHY, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN HOTEL REGISTER CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BINDER.

Application filed March 25, 1926. Serial No. 97,201.

My invention relates to a binder and particularly to that form of binding device for fastening periodicals such as hotel directories, telephone books, railroad guides, and other periodicals into a stiff cover, so that they may be readily fastened therein and removed in a most simple and facile manner.

The object of my invention is to provide a binder for periodicals and the like which will be cheap and simple in construction, easy to operate, and which, when a periodical or the like is fastened therein, will efficiently secure the same so that there is no danger of the parts becoming disengaged and thus allowing the periodicals to become disengaged from the binder.

A further object of my invention is to provide a binder which will require no great amount of exertion in order to fasten the periodical or the like therein, and one in which there will be no spring wires, or the like to be pulled out of position to unfasten the same.

Many of the binders in use commercially today are so constructed that a great amount of force and exertion is necessary in order to lock the device after the periodical has been placed therein, and my invention seeks to eliminate all this unnecessary exertion for forcing the binding rod into place and is accomplished by means of an attached spring lever which, when the binding rod is positioned, enters a slot and into a recess and securely holds the binding rod against a shoulder so that it cannot become disengaged except by raising the spring arm, which, however can be accomplished very readily and without unnecessary exertion, and when so removed, the binding rod may be quickly and conveniently raised so as to permit the periodical or the like to be withdrawn and a new one placed in the binder.

Another object of my invention is to provide a binder which may be used perpetually without any wear or distortion of the parts, so as to render the same valueless.

Having thus described the purposes and objects of my invention, the same will be understood more readily by referring to the following specification in connection with the accompanying drawing in which:

Fig. 1 is a partial plan view of an open binder showing the magazine or periodical therein lying open at substantially the center of the same.

Fig. 2 is a vertical sectional view of the same on the line 2—2 of Fig. 1, looking in the direction of the arrows,

Fig. 3 is a partial end view of the binder looking in the direction of the arrow A in Fig. 1,

Fig. 4 is a view of the bottom end of the metal back plate showing the locking recess therein, and

Fig. 5 is a sectional view of a portion of the binder and periodical taken on the line 5—5 of Fig. 1 and looking in the direction of the arrows.

As illustrated in the drawings, my improved binder has a front and back cover 6 and 7 each of which is composed of a substantially heavy sheet of material 8 such as Fuller board, fiber board, or any other material which will provide a strong non-bendable base, and in order to give the same the proper appearance, this sheet 8 is covered with a layer 9 of some suitable material such as binding cloth, leatheroid, leather, or the like, and the said covering extends between the front and back cover 6 and 7 at the point indicated by the numeral 11, so as to provide a connection between said parts. Resting upon that portion of the outer covering material which is between the front and back members 6 and 7, as indicated at 11, and lengthwise of the same and extending almost to the outer edges of the members 6 and 7, is a metal back plate 12 which is covered on its flat horizontal portion with a strip of heavy binding cloth or other suitable material 13 in order to secure the same onto the portion 11, and this plate is provided with upturned vertical ends 14 and 16 at the upper and lower ends respectively. Resting above the metal back plate 12 and extending from the vertical end 14 to a position about an inch from the vertical end 16, is a channel member 17 which lies upon the binding cloth 13 covering the said plate 12 and is secured to the said plate by rivets 18, and this channel is adapted to receive and retain the hinged end of the periodical 20 or the like within the channel 19 of the same, while a binding bar 21 has its upper end passed through a slot 22 in the vertical portion 14 and the head 23 fashioned on the

end thereof prevents the same from being withdrawn from said slot, while the other end of said binding bar has an overturned end 24 as shown in Fig. 1.

A locking arm 26 is pivotally connected to the binding bar 21 at the point 27, and this locking member is formed of spring steel with a knob 28 on its outer end, which, when the same is parallel with the binding bar, lies at a point slightly beyond the outturned end 24 of the said binding bar, and the said locking arm 26 is sprung outwardly to provide the space 29 between the same and the said bar, as later explained.

The bottom vertical portion 16 of the back plate 12 is provided with a recess 31, and this recess has a slot 32 extending into the same from the upper part of said vertical portion and on one side of the said recess is a right angular shoulder 33 extending to the edge of said slot, while the other side of said recess is provided with an angular tapering shoulder 34 extending to the other side of said slot, as will now be explained.

When the periodical has been opened at the center, where, in order to give the same a good wearing surface, I propose to place a longitudinal strip of cloth or other wearing material 36, and the hinged portion of the same dropped within the channel 19, the binding bar 21 is brought down onto said strip and the end thereof passed downward through the slot 32 and pressed over so that the same engages the shoulder 33 in the recess 31, whereupon the locking arm 26 is pressed to the left by grasping the knob 28, and it is pressed down through the slot 32 so that it engages with the vertical shoulder 34 on the other side of said recess and when the tension is released from the same it will engage firmly with the outer wall of the said recess 31 and will press the end of the binding bar 21 securely against the other side of the said recess and the shoulder 33 will prevent the said bar's removal.

From a view of Fig. 3 it will be seen that when the locking arm 26 has been pressed downward on its pivotal connection 27 so as to enter the recess 31, it will be impossible for the binding bar 21 to pass outward through the slot 32 as the recess on the right-hand side is much more shallow than on the left hand side which thus places the locking arm in a position in direct line with the slot 32 so that the said binding bar cannot be released from the recess 31 and drawn upward through the slot 32 until the locking arm has been pressed over against the said binding bar and then raised by grasping the knob 28 and permitting the end of the locking arm to pass upward through the slot 32 by means of its pivotal connection 27, and after this locking arm has been removed, the binding bar can be made to register with the slot 32 by being pressed over in the recess 31 whereupon it may be lifted through the slot 32 and since the slot 22 in the vertical member 14 is sufficiently loose, the turned end 24 of the said bar may be raised to a convenient position for removing the periodical from the channel 19 and another one placed therein when the same locking operation is performed in order to secure the new periodical or the like in the binder.

It will thus be seen that with the use of my improved binder no forcing of the parts will be necessary and the only exertion that need be used for fastening the periodical or the like within the channel 19 and thus within the binder is the amount necessary to press the knob 28 over against the flat edge of the binding bar 21 in order to pass it through the slot 31 for locking the bar therein. It will also be readily seen that by reason of the shoulder 34 on the right hand side of the recess 31 being made angular or inclined, when a slight pressure is exerted below the knob 28, the locking arm 26, by its pivotal connection 27 will slide out along its inclined shoulder into the slot 32 so as to release the said binding bar and thus permit its withdrawal from the recess through the slot 32.

It will be evident that while I have shown and described a preferred embodiment of my invention for illustrative purposes, various modifications in the shape and design of parts may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages as covered by the following claims.

I claim:

1. A binder comprising a plate having upturned portions at the ends of the same, one of said portions having an opening extending through the same and the other having a recess communicating with a slot open at the outer end thereof, a binding bar having one end mounted in the opening in said first named portion and adapted to be passed through the slot and into the recess of said other portion, and means passing through said slot and into said recess for locking said bar therein.

2. A binder comprising a back plate having upturned portions, a binding bar having one end secured in one of said portions and adapted to fit by its other end into a recess in the other portion, and an arm operable in said recess for locking said bar therein.

3. A binder comprisng a back plate having upturned portions at the ends of the same, a binding bar having one end mounted in an opening extending through one of said portions and its other end adapted to fit into a recess in the other portion, and an arm operable in said recess for locking said bar therein.

4. A binder comprising a back plate hav-

ing upturned portions, a binding bar having one end secured in one of said portions and adapted to fit by its other end into a recess in the other portion, and an arm pivoted to said bar for locking the same in said recess.

5. A binder comprisng a back plate having upturned portions at the ends of the same, a binding bar having one end mounted in an opening extending through one of said portions and its other end adapted to fit into a recess in the other portion, and an arm pivoted to said bar for locking the same in said recess.

6. A binder comprising a plate having upturned portions at the ends of the same, one of said portions having an opening extending through the same and the other having a recess communicating with a slot open at the outer end thereof, a binding bar having one end mounted in the opening in said first named portion and adapted to be passed through the slot and into the recess of said other portion, and an arm passing through said slot and into said recess for locking said bar therein.

7. A binder comprising a plate having upturned portions at the ends of the same, one of said portions having an opening extending through the same and the other having a recess communicating with a slot open at the outer end thereof, a binding bar having one end mounted in the opening in said first named portion and adapted to be passed through the slot and into the recess of said other portion, and an arm pivoted to said bar and adapted to pass through said slot and into said recess for locking said bar therein.

8. A binder comprising a bar secured at one end, a recessed portion for receiving the other end of said bar, and an arm extending into said recess for locking said bar therein.

9. A binder comprising a bar secured at one end, a recessed portion for receiving the other end of said bar, and an arm pivoted to said bar and extending into said recess for locking said bar therein.

10. A binder comprising a bar secured at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a shoulder in said recess against which the other end of said bar is adapted to rest, and means extending into said recess for locking said bar against said shoulder.

11. A binder comprising a bar secured at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a shoulder in said recess against which the other end of said bar is adapted to rest, and an arm extending into said recess for locking said bar against said shoulder.

12. A binder comprising a bar secured at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a shoulder in said recess against which the other end of said bar is adapted to rest, and an arm pivoted to said bar and adapted to extend into said recess for locking said bar against said shoulder.

13. A binder comprising a back plate having upturned portions, a channel bar secured thereto and opening upwardly therefrom, a binding bar having one end secured in one of said portions and adapted to fit by its other end into a recess in the other portion, and an arm pivoted to said bar for locking said bar in said recess.

14. A binder comprising a plate having upturned portions at the ends of the same, one of said portions having an opening extending through the same and the other having a recess communicating with a slot open at the outer end thereof, a binding bar having one end mounted in the opening in said first named portion and adapted to be passed through the slot and into the recess of said other portion, and spring means passing through said slot and into said recess for locking said bar therein.

15. A binder comprising a bar fixedly mounted at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form shoulders on each side of said recess, the other end of said bar being adapted to rest against one of said shoulders, and means adapted to rest against the other shoulder in said recess to prevent the removal of said bar.

16. A binder comprising a bar fixedly mounted at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form shoulders on each side of said recess, the other end of said bar being adapted to rest against one of said shoulders, and spring means adapted to rest against the other shoulder in said recess to prevent the removal of said bar.

17. A binder comprising a bar fixedly mounted at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form shoulders on each side of said recess, the other end of said bar being adapted to rest against one of said shoulders, and an arm adapted to rest against the other shoulder in said recess to prevent the removal of said bar.

18. A binder comprising a bar fixedly mounted at one end, a portion having a recess and a slot connecting said recess with the outer end of said portion so as to form shoulders on each side of said recess, the other end of said bar being adapted to rest against one of said shoulders, and a spring arm pivoted to said bar and adapted to rest

against the other shoulder in said recess to prevent the removal of said bar.

19. A binder comprising a bar fixedly mounted at one end, a securing portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a right angular shoulder on one side of said recess and an inclined shoulder on the other side, the other end of said bar being adapted to rest against said right angular shoulder, and an arm adapted to rest against the inclined shoulder to lock said bar in said recess.

20. A binder comprising a bar fixedly mounted at one end, a securing portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a right angular shoulder on one side of said recess and an inclined shoulder on the other side, the other end of said bar being adapted to rest against said right angular shoulder, and a spring arm adapted to rest against the inclined shoulder to lock said bar in said recess.

21. A binder comprising a bar fixedly mounted at one end, a securing portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a right angular shoulder on one side of said recess and an inclined shoulder on the other side, the other end of said bar being adapted to rest against said right angular shoulder, and a spring arm pivoted to said bar and adapted to rest against said inclined shoulder to lock said bar in said recess.

22. A binder comprising a bar fixedly mounted at one end, a securing portion having a recess and a slot connecting said recess with the outer end of said portion so as to form a right angular shoulder on one side of said recess and an inclined shoulder on the other side, the other end of said bar being adapted to rest against said right angular shoulder, and a spring arm having one end pivotally connected with said bar and its other end normally flaring therefrom and adapted to rest against the inclined shoulder and prevent the removal of said bar from said recess.

In witness of the foregoing I affix my signature.

THOMAS F. LEAHY.