H. T. ADAMS.

LOOSE LEAF BOOKBINDER.

APPLICATION FILED JULY 12, 1918.

1,313,240. Patented Aug. 19, 1919.

Fig. 1.

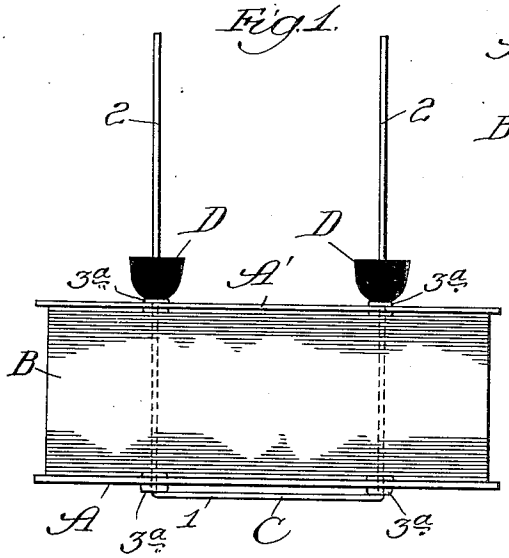


Fig. 2.

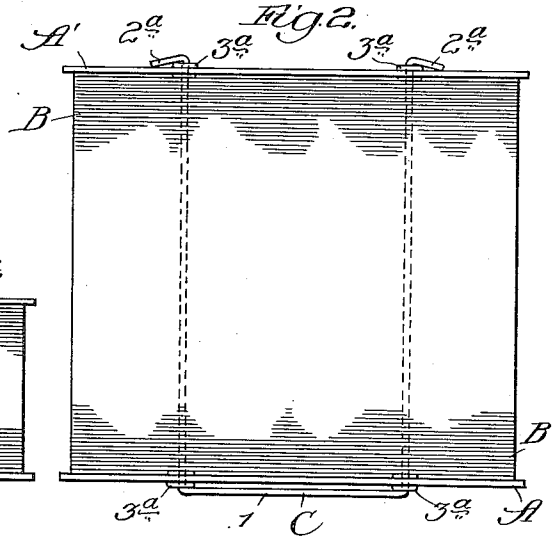


Fig. 3.

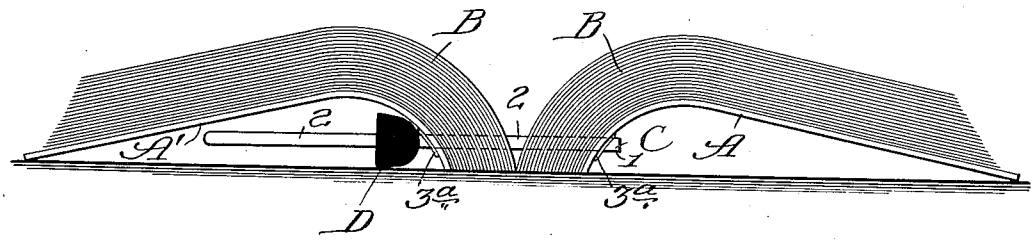


Fig. 4.

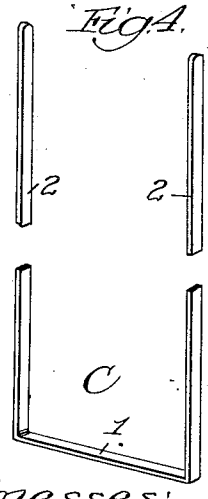


Fig. 5.

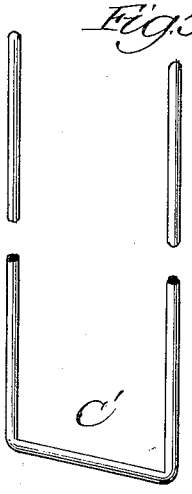


Fig. 6.

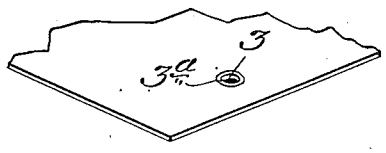


Fig. 7.



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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BOOKBINDER.

1,313,240. Specification of Letters Patent. Patented Aug. 19, 1919.

Application filed July 12, 1918. Serial No. 244,582.

To all whom it may concern:

Be it known that I, HENRY T. ADAMS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Loose-Leaf Bookbinders, of which the following is a specification.

The present invention is in the nature of a very simple form of loose-leaf bookbinder; and the primary object is to provide a binder which can be manufactured at minimum cost, and which is capable of being usefully employed for various purposes, as, for instance, for a sales-order book, shipping-receipt book, shop-order book, or the like.

The improved book, aside from the extremely low cost at which it can be produced, is capable of more facile use than books of more complicated and more expensive construction. In addition, it may, after serving its purpose for temporary use, be used for permanently binding the loose-leaves, thus serving the purpose of a transfer binder.

The invention is illustrated in its preferred embodiment in the accompanying drawing, in which—

Figure 1 represents an end elevational view of the improved binder, partially filled with loose sheets; Fig. 2, a similar view showing the binder filled and in condition to serve as a permanent binder, or transfer-binder; Fig. 3, a side-edge elevational view, showing the book in open condition, in which condition it has no tendency to close; Fig. 4, a broken perspective view of the preferred form of U-shaped binding member employed; Fig. 5, a similar view of a modified form of binding member; Fig. 6, a broken perspective view of one of the stiff, flexible cover-sections; and Fig. 7, a plan view of one of the frictional retainers used on the binding member.

In the construction illustrated, A, A^1 represent, respectively, the lower and upper cover-sections; B, the loose leaves of the book; C, a U-shaped binding member employed; and D, D, frictional retainers engaging the vertical impaling members of the U-shaped device C.

The cover-sections are preferably formed without hinges from moderately stiff, flexible, but resilient material. A thin, resilient, moderately stiff card-board, or heavy paper, answers the purpose admirably.

The U-shaped member C is preferably of the form shown in Fig. 4, comprising a thin, narrow strip of metal, bent into U-form, thus forming a web, or bottom bar, 1, and the vertical impaling arms, or posts, 2. The member C is preferably formed of steel, which should be stiff enough to retain its shape and support the book, but still sufficiently soft, or pliable, to enable the ends to be bent in the manner illustrated in Fig. 2 when the book is filled and it is desired to use the binder for permanent record purposes.

The bar from which the member C is formed is preferably of a thickness of about one-sixteenth of an inch, or a little more, and of a width of about one-eighth of an inch, or perhaps three-sixteenths of an inch, and a convenient height of the impaling arms 2 is about five or six inches.

The resilient, pliable cover-sections are provided at their rear edges with two perforations 3, spaced to correspond with the spacing of the impaling arms 2, and preferably equipped with eyelets 3^a. The leaves, or sheets, B, are likewise provided at their rear edges with corresponding perforations through which the arms 2 extend.

The retainers D may be of any suitable construction. Preferably each retainer comprises a thick rubber disk provided with a vertical central perforation 4 adapted to closely embrace the arm 2 and frictionally engage the same. In the use of the book, the retainers may be forced down against the upper cover-section in the manner shown in Fig. 1 to hold the leaves closely together, or the retainers may be lifted some distance from the upper cover-section, thus enabling the book to open freely, in the manner shown in Fig. 3, the perforations in the leaves and cover-sections being sufficiently large to permit the leaves and cover-sections to adjust themselves freely on the arms 2 as illustrated in said Fig. 3. This enables the leaves to be thumbed readily and gives virtually the effect of a flat-opening book, in which there is no tendency for the leaves to spring to the closed position. The moderately resilient cover-sections accommodate themselves readily to the open position of the book, and support the leaves in the manner shown in Fig. 3. It will be understood that this facilitates the examination of any leaf of the book, enables any selected leaf to be written upon freely, and the user will not

lose the place he is examining, in the event that his attention should be diverted.

The retainers D may be omitted, as the book can be used quite freely without them. The perforations through the cover-sections and leaves are sufficiently large to enable the leaves to slip with comparative freedom on the impaling arm, so that the book will naturally open in the comparatively flat condition shown in Fig. 3, assuming that the retainers D are not close against the upper-cover section, or assuming that the retainers are not used.

When it is desired to use the binder to hold the leaves as a permanent record, the extremities of the impaling arms may be bent over upon the upper cover-section in the manner illustrated in Fig. 2, pliers being used for the purpose, if necessary.

It may be stated that the binding-member C may be freely removed from the book when desired. Thus, for transportation purposes, the member C may be removed and placed flatwise on the book; and in reassembling, the impaling arms will pass readily through the perforations of the cover-sections and leaves. It is desirable to round or provide a dull point for the upper ends of the arms 2, as shown in Fig. 4, thus enabling the arms to slip freely through the perforations of the leaves, the extremities of the arms being too dull, however, to perforate or tear the leaves.

In Fig. 5, C^1 represents a modified form of binding member. In this form, the binding-member comprises a round wire bent into U-form.

In the form shown in Fig. 4, the member C may be regarded as formed of flat wire, bent in such a manner that the web 1 will lie flat on the desk, while the sides of the arms 2 will lie in planes parallel with the lateral edges of the book.

The construction described is simple, capable of being cheaply manufactured, and may be employed with the utmost handiness for various purposes. The size of the device, the length of the web, etc., may vary, according to the use to which the binder is to be put.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

What I regard as new, and desire to secure by Letters Patent, is:

1. A loose-leaf book adapted to be used both for temporary and permanent record purposes, comprising a pair of flexible, resilient cover-sections and interposed leaves, all provided at their rear edges with perforations, and a U-shaped metal binding-member of flat cross-section having a web engaging the outer surface of the lower cover-section and having impaling arms extending loosely through the perforations in the cover-sections and the interposed sheets, whereby the leaves and cover-sections may slide freely and adjust themselves on said arms to permit the book to lie in open condition free from tendency to close, said arms being stiff, but capable of being bent to enable the binder to serve for permanent record purposes.

2. A loose-leaf book adapted to be used both for temporary and permanent record purposes, comprising a pair of flexible, resilient cover-sections and interposed leaves, all provided at their rear edges with perforations, a U-shaped metal binding-member having a web engaging the outer surface of the lower cover-section and having impaling arms extending loosely through the perforations in the cover-sections and the interposed sheets, whereby the leaves and cover-sections may slide freely and adjust themselves on said arms to permit the book to lie in open condition free from tendency to close, said arms being stiff, but capable of being bent to enable the binder to serve for permanent record purposes, and frictional retainers mounted on said impaling arms and adapted to be moved away from the adjacent cover-section to enable the book to open freely.

3. A loose-leaf book adapted to be used both for temporary and permanent record purposes, comprising flexible, resilient cover-sections and interposed leaves, all provided near their rear edges with perforations, a U-shaped binding-member of flat cross-section having a web engaging the outer surface of the lower cover-section and having impaling arms extending loosely through the perforations in the cover-sections and interposed loose sheets, whereby the leaves and cover-sections may move freely and adjust themselves on said arms to obviate tendency of the book to close, said arms being stiff, but capable of being bent with comparative ease to lie parallel with said web to enable the binder to serve for permanent record purposes, and frictional retainers comprising perforated rubber disks impaled by and frictionally held on said arms and adapted to be moved away from the adjacent cover-section to enable the book to close freely.

HENRY T. ADAMS.