Sept. 18, 1934. H. D. COTTRELL 1,973,796

LOOSE LEAF BINDER

Filed July 15, 1932 2 Sheets-Sheet 1

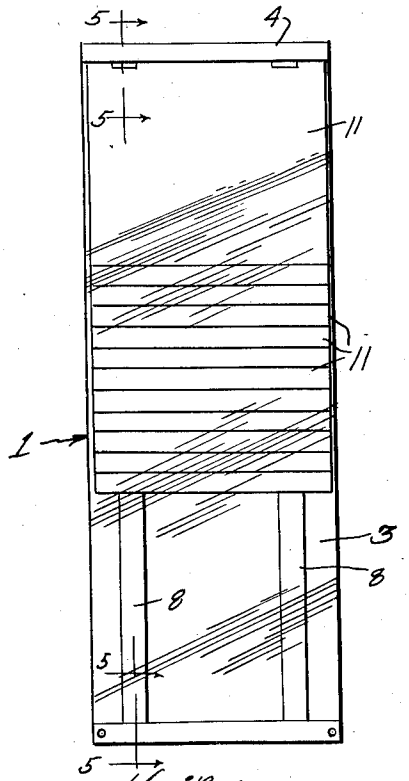


Fig. 1

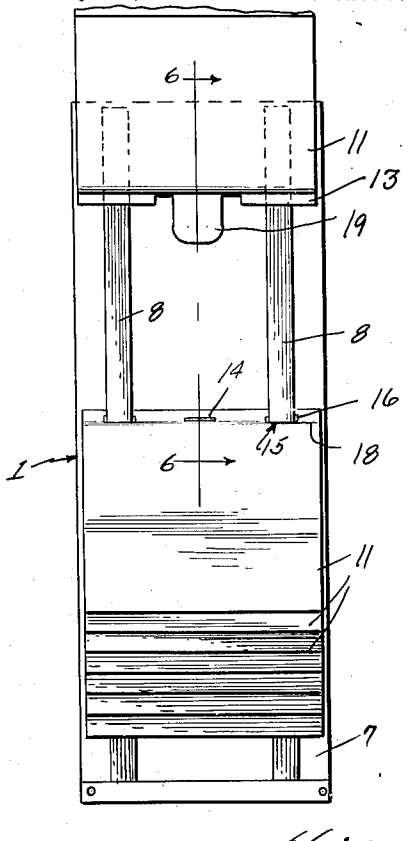


Fig. 2

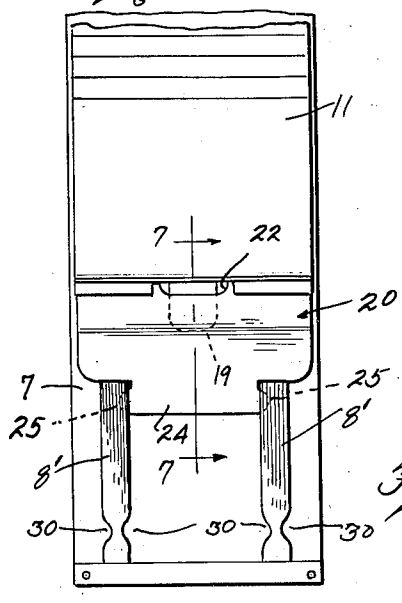


Fig. 3

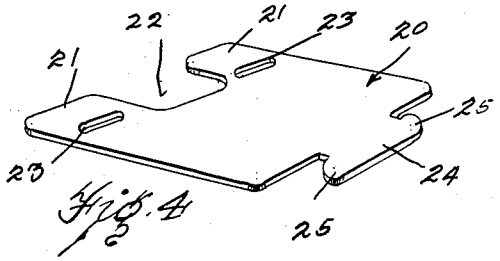


Fig. 4

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LOOSE LEAF BINDER

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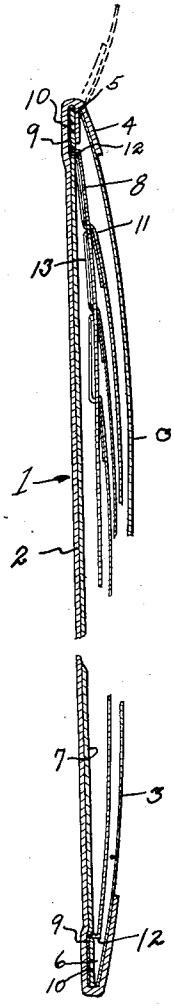


Fig. 5

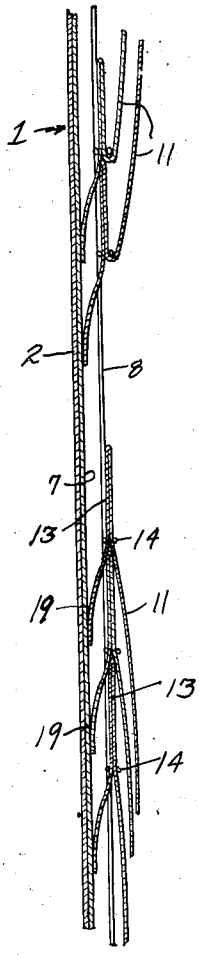


Fig. 6

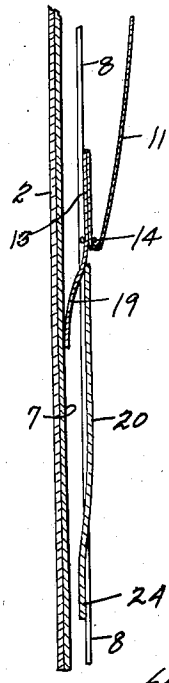


Fig. 7

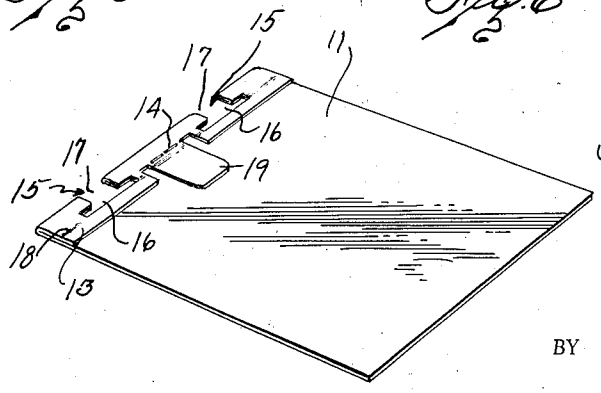


Fig. 8

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UNITED STATES PATENT OFFICE

1,973,796

LOOSE LEAF BINDER

Holland D. Cottrell, Detroit, Mich.

Application July 15, 1932, Serial No. 622,616

6 Claims. (Cl. 129—16)

This invention relates to loose leaf binders and an object of the invention resides in the provision of a device of this character in which the sheets or cards are arranged in overlapping relationship whereby the lower edge of each card extends a slight distance below the superimposed card permitting an index to be printed on the exposed lower edge of each card thereby providing a binder in which ready reference may be had to the contents thereof.

Another object of the invention resides in the provision of a device of this character in which the loose leaf sheets or cards are slidably positioned on a pair of straps extending from one end of the binder to the other, each card being provided with a return-bent portion against which the upper edge of the next lower card or leaf abuts whereby the lower edge of each card is exposed to view.

Another object of the invention resides in the provision of means for holding the cards or leaves in their correct position on the straps of the binder and which is so arranged as to be quickly released to permit additional cards or leaves to be inserted or to permit the removal of leaves from the binder.

Another object of the invention resides in the provision of a loose leaf binder or card index in which the lower edge of each card has indicia printed thereon providing for ready reference to the contents of the different leaves or cards in the binder and which is provided with a backing and a transparent cover hingedly connected to the backing thereby preventing soiling of the cards or leaves when the device is carried in the pocket while still permitting the indicia on the cards to be seen without raising the cover.

Another object of the invention resides in the provision of a device of this character which is provided with a pair of polished sheet-metal straps extending from one end of the binder to the other, each card or leaf of the device being provided with a pair of notches adjacent the upper edge thereof for engaging over the straps, the flexible straps permitting the cards or leaves of the binder to be easily slid therealong either one at a time or a multiplicity thereof to permit replacement or removal of the cards.

These objects and the several novel features of the invention are hereinafter more fully described and claimed and the preferred form of construction by which these objects are attained is shown in the accompanying drawings in which—

Fig. 1 is a front elevational view of my improved binder.

Fig. 2 is a similar view showing the device in readiness to receive a new card.

Fig. 3 is a similar view showing the cards or leaves bent back and the locking means for holding the cards in position. This view further shows an alternative form of construction.

Fig. 4 is a detail perspective view of the locking or holding device.

Fig. 5 is an enlarged section taken on line 5—5 of Fig. 1.

Fig. 6 is an enlarged section taken on line 6—6 of Fig. 2.

Fig. 7 is an enlarged section taken on line 7—7 of Fig. 3.

Fig. 8 is a detail perspective of one of the loose leaf cards.

Referring to the drawings, the device comprises the holder 1 formed of a flexible back 2 and a transparent cover 3, the same being suitably secured at its upper end to the turned-over edge 4 of the back 2. A pocket 5 is formed adjacent the upper edge of the back 2 while a pocket 6 is formed adjacent the lower edge thereof for permitting insertion of the lower edge of the cover 3 and the lower edge of the flexible backing 7 while the pocket 5 receives the upper edge of the backing 7.

The juncture of the back 2 and the turned-over portion 4 acts as a hinge for the cover 3 permitting access to the cards in the device when the cover 3 is raised to the dotted-line position shown in Fig. 5. The flexible sheet-metal straps 8, preferably having a polished surface, are each formed adjacent their upper and lower ends with the offset portions 9, the same each being riveted at 10 to the backing 7, and as is more clearly shown in Fig. 5 a space is provided between each strap and the backing 7 so that the upper edge of the upper card 11 will abut the portion 12 of each of the straps 8. Each card 11 has the upper edge 13 return-bent and suitably secured to the main portion of the card such as by the staple 14. The T-shaped notches 15 are formed in the upper edge of each card and the wide portion 16 of each notch engages over one of the straps 7, the same being only slightly smaller in width than the width of the portion 16 of the notch while the portion 17 of each notch is less in width than the width of the strap so that when the cards are assembled on the straps the same will not be accidentally removed therefrom. It will be understood, of course, that the portions of the card 11 adjacent the portions 17 of the notches 15 will be sufficiently flexible to permit the same

to be slightly bent before inserting the straps into the portion 16 of the notches.

Each of the cards 11 is preferably scored at 18 to form a hinge to permit the major portion of the cards to be bent back, as is more clearly shown in Fig. 6. The edge 13 is formed centrally thereof with the tongue or tab 19 which projects beneath the upper edge of the next lower card. It will be seen by referring to Fig. 6 that the staple 14 acts as a stop to limit the upward movement of the next succeeding lower card, and since all of the cards are uniform in length and the staple 14 positioned in approximately the same place relative to the upper edge of each card, that the lower edge of each card will extend a uniform distance below the lower edge of the next upper card providing a space for printing indicia thereon which may be in the form of an index to provide for ready reference to the contents of the binder. The locking member 20 is formed with the projecting ends 21 forming a notch or recess 22, and each of the projecting ends 21 is provided with the elongated aperture 23 through which the straps 8 extend, the same being assembled on the strap prior to assembly of the straps with the backing 7. The opposite edge of the locking member 20 is formed with the tongue 24 having the rounded ends 25 which engage beneath each of the straps 8 as more clearly shown in Fig. 3.

The locking member 20 is preferably formed of semi-rigid material such as heavy cardboard or the like, and when the tongue 24 is engaged below the straps 8 while the main portion is above the same sufficient friction is provided between the locking member and the strap to hold the same in position and when the locking member is shoved up against the lower card as shown in Fig. 3 the cards will be held in their correct position on the straps 8'. Each of the straps 8' adjacent the lower end thereof is formed on its opposite side edges with the notches 30 to permit the rounded ends 25 of the tongue 24 to be easily inserted under the strap 8'. The notches further permit the cards or sheets 11 to be slipped down and lifted from the straps 8', as the width of metal between the bottom of the notches 30 is approximately the same as the width of the portion 17 of the notch 15. This is necessary where relatively stiff cards are used as otherwise it would be hard to assemble the cards on the straps. When it is desired to either add a new card to the straps or remove one therefrom the tongue 24 is removed from under the strap 8' and slid down toward the lower edge of the backing then a number of the cards slid down on the strap as shown in Fig. 2 and the upper cards bent back as shown in Fig. 6. The card to be inserted will then be placed over the straps 8' and slid up to contact the upper series of cards.

The lower series of cards will then be slipped up on the straps 8' to their correct position and the locking member 20 also moved up to engage the lower card after the rounded ends 25 of the tongue 24 have been placed under the strap 8' so that all the cards will be held in their correct position. It will be seen that when the cards of the holder have been completely filled with data and if it is desired to keep the cards as a permanent record the upper edge of the backing 7 will be removed from the pocket 5 and the lower edge removed from the pocket 6 whereupon a new device may be inserted in the holder 1.

It will be understood that although these straps 8 of Figs. 1 and 2 or 8' of Fig. 3 have been described as being of metal that the same may be made of fabric without departing from the spirit of the invention. Ordinarily, however, when fabric straps are used the friction between the fabric straps and the cards is sufficiently great to prevent more than one card being moved at a time while with using metal straps having a polished surface a number of the cards may be moved along the straps very easily.

From the foregoing description it becomes evident that I have provided a loose leaf binder or card index which will permit easy replacement or removal of cards and which is easy to manipulate and which is relatively inexpensive to manufacture.

Having thus fully described my invention, its utility and mode of operation, what I claim and desire to secure by Letters Patent of the United States is—

1. A device of the character described comprising a flexible backing, a pair of flexible straps having the ends thereof secured to the backing, a plurality of cards having notches in one edge for engaging the straps, means on each card for limiting the movement of one card toward another whereby the lower edge of each card extends a predetermined distance below the edge of the superimposed card, and means in frictional engagement with the straps and engaging the lowermost card for maintaining the cards in position on the straps.

2. A device of the character described comprising a backing, a pair of straps secured thereto, a plurality of cards having notches in one edge thereof for engaging the straps, means on each card for limiting the movement of one card toward another whereby the lower edge of each card extends a predetermined distance below the edge of the superimposed card, and means frictionally engaging the straps and abutting the lowermost card for maintaining the cards in position on the straps.

3. A device of the character described comprising a backing, a pair of flexible metal straps having a polished surface secured thereto, a plurality of cards having notches in the lower edge thereof for engaging the straps, means on each card for limiting the movement of one card toward another whereby the lower edge of each card extends a predetermined distance below the edge of the superimposed card, and means frictionally engaging the straps and abutting the lowermost card for maintaining the cards in position on the straps.

4. A device of the character described comprising a backing, a pair of flexible metal straps having a polished surface secured to the backing, a plurality of cards having notches in one edge thereof for engaging the straps, means on each card for limiting the movement of one card toward another whereby the lower edge of each card extends a predetermined distance below the edge of the superimposed card, a holder having a pocket adjacent its upper and lower edge for receiving the respective ends of the backing, and a transparent cover, one edge hingedly connected to the holder, the free edge insertable in the pocket at the opposite edge of the holder, the transparent cover permitting the exposed edge of each card to be visible when the cover is closed.

5. A device of the character described, comprising a backing, a pair of straps secured thereto, a plurality of cards having notches in one edge thereof engaging the straps, means on each card for limiting the movement of one card toward

another whereby the lower edge of each card extends a predetermined distance below the edge of the superimposed card, a holder having a pocket adjacent its upper and lower edges for receiving the respective ends of the backing, and a transparent cover, one edge hingedly connected to the holder, the free edge insertable in the pocket at the opposite edge of the holder, the transparent cover permitting the exposed edge of each card to be visible when the cover is closed.

6. A device of the character described comprising a backing, a pair of flexible metal straps secured at the opposite ends only to the respective opposite ends of the backing, a plurality of cards having notches in one edge thereof for engaging the straps, said straps adjacent one end thereof each having a portion of reduced width permitting the notched cards to be withdrawn from the strap when the notches of the card align with the said portions of reduced width of the straps, and means on each card for limiting the movement thereof toward the preceding and superimposed card.

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