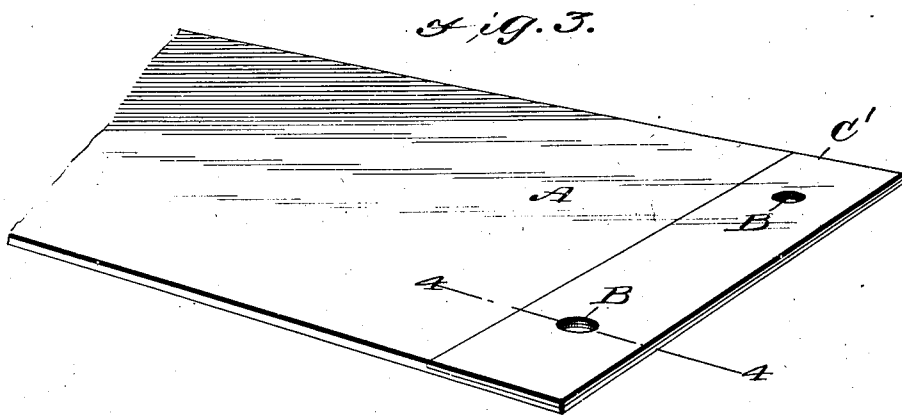
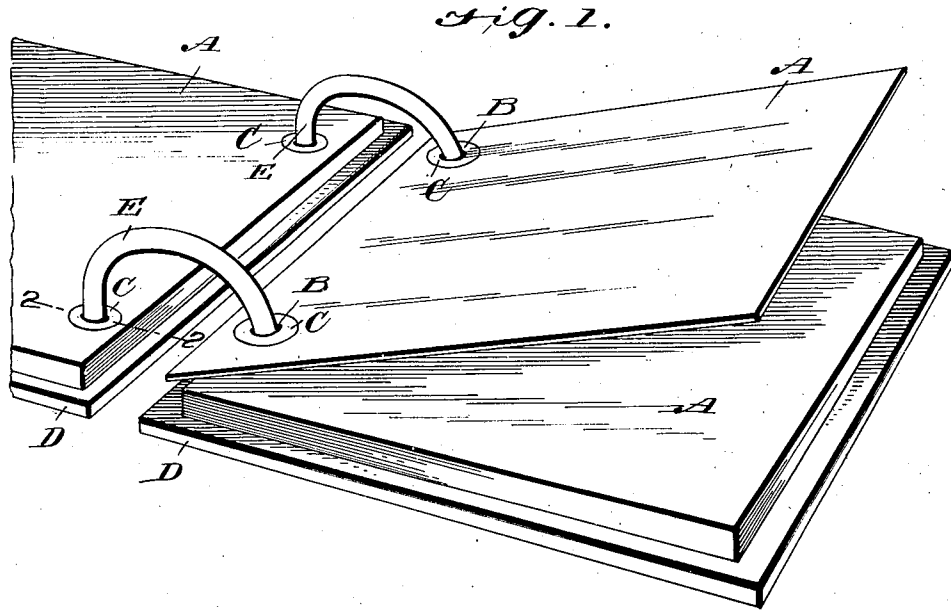


F. H. CRUMP.
 REINFORCEMENT FOR BOOK LEAVES.
 APPLICATION FILED MAR. 17, 1909.

938,370.

Patented Oct. 26, 1909.



WITNESSES
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UNITED STATES PATENT OFFICE.

FRANK H. CRUMP, OF LOS ANGELES, CALIFORNIA.

REINFORCEMENT FOR BOOK-LEAVES.

938,370.

Specification of Letters Patent. Patented Oct. 26, 1909.

Application filed March 17, 1909. Serial No. 483,934.

To all whom it may concern:

Be it known that I, FRANK H. CRUMP, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have made certain new and useful Improvements in Reinforcements for Book-Leaves, of which the following is a specification.

My invention relates to means for protecting the binding holes of book leaves, and it consists in the combinations, constructions and arrangements hereinafter described and claimed.

The form of book to which this invention particularly refers is that which is largely employed for ledgers, journals, invoices, bills, accounts, memoranda, &c., &c., and which usually consists of loose sheets bound together between covers by clasps, pins, posts, bolts, rings, &c., which are attached to the covers and by which the sheets are temporarily held. In certain forms of the books in common use the sheets are weakened near the binding margin in order that they may readily bend at this point. The binding holes are punched through the margin and the constant movement of the edges of the binding holes against the post or pin tends to mutilate the edge around the hole and often results in rendering the sheet useless.

The main object of my invention is to strengthen the binding edges of loose sheets to such an extent that the sheets may be moved upon the posts or other binding mechanism without mutilation.

A further object of my invention is to provide a binding edge which will be of the same thickness, after the reinforcement has been applied, as the main body of the sheet.

Other objects and advantages will appear in the following specification and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a book embodying my invention. Fig. 2 is an enlarged section along the line 2—2 of Fig. 1. Fig. 3 is a perspective view of a sheet show-

ing the reinforcement extending entirely across the binding edge, and Fig. 4 is an enlarged sectional view along the line 4—4 of Fig. 3.

In carrying out my invention I take a sheet A and around the points where the binding holes B are to be punched, I cut away portions thereby reducing the thickness of the sheet. The reduced area may be that immediately surrounding the binding hole as shown in Figs. 1 and 2, or it may extend clear across the binding edge, as shown in Figs. 3 and 4. In the cut away portion of the sheet I apply strengthening material, which is preferably in the form of a piece of gummed linen C. This linen is of approximately the same thickness as the portion cut away from the sheet, so that when the linen is in place, the whole sheet has the same thickness, as clearly shown in the drawings.

In Fig. 1 I have shown the sheets A as being provided with annular rings C of gummed linen adjacent to each binding hole B, the sheets then being placed between the covers D and held by means of the loop posts E. The provision of the strengthening material next to the metal post keeps the thin edge of the sheet from wearing or tearing. The thickness of the book, and especially of the binding edge, is not increased and the book as a whole therefore presents the same appearance as a similar book without the reinforcement.

In Figs. 3 and 4, I have shown the sheets as being provided with strips C' disposed in the reduced area and extending clear across the binding edge.

The manner in which certain portions of these sheets are reduced and the gummed linen applied and the holes punched, forms no part of the present invention but will be made the subject of a separate application.

I claim—

1. A sheet provided with binding holes and having cut-away portions adjacent to and surrounding said binding holes, and a strip of linen disposed in said cut away portions, said linen strip being of such a thickness that its outer surface lies flush

with the outer surface of the body portion of the sheet, thereby providing reinforced edges for the binding holes.

2. A sheet or card provided with binder holes, the binding edge being wholly or partially reduced in thickness and reinforced by a gummed linen sticker entirely surround-

ing the binder holes, which restores these parts to their original thickness.

FRANK H. CRUMP.

Witnesses:

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