No. 759,795. PATENTED MAY 10, 1904.

P. W. ZIEGLER.

BOOKBINDING.

APPLICATION FILED AUG. 16, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 2.

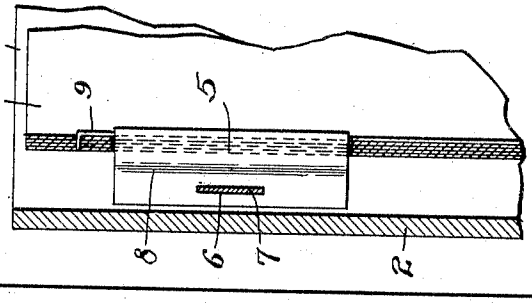
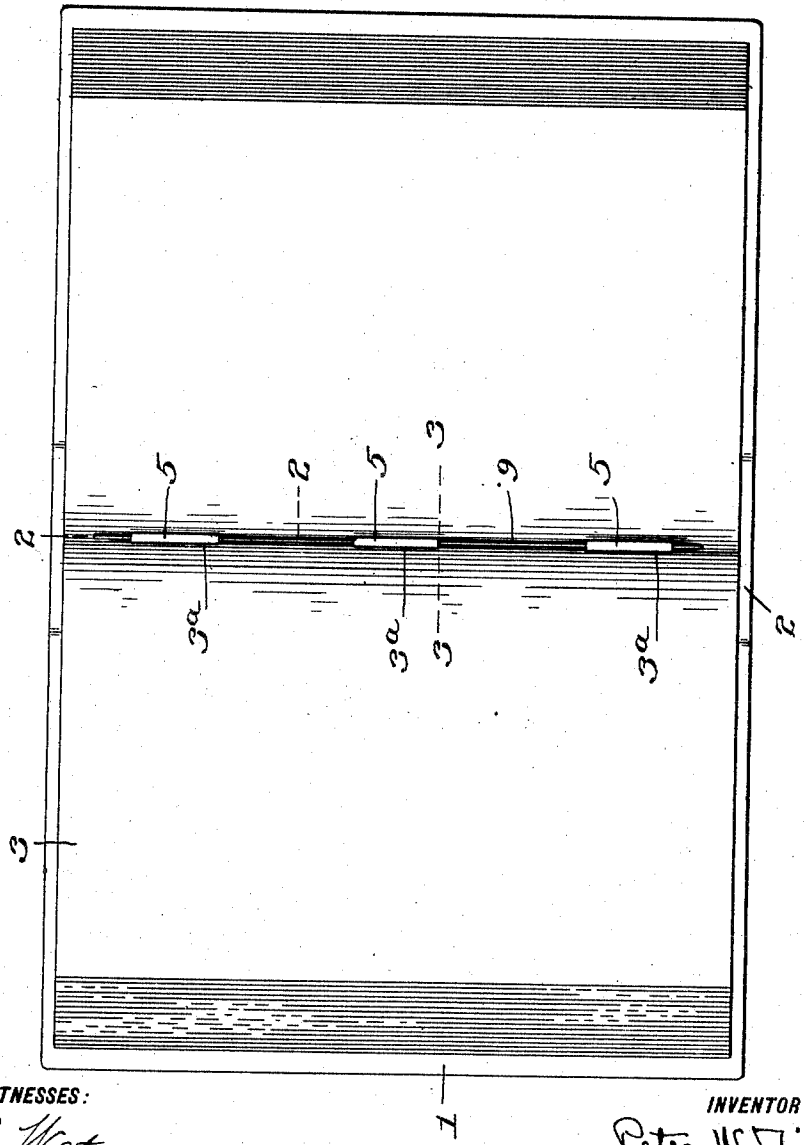


Fig. 1.



WITNESSES:

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INVENTOR

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

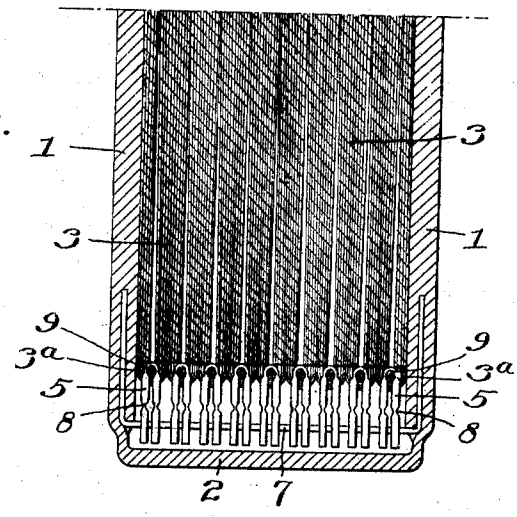


Fig. 7.

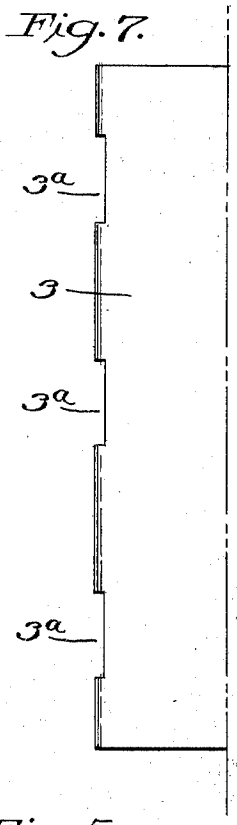


Fig. 4.

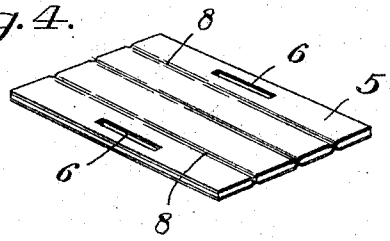


Fig. 5.

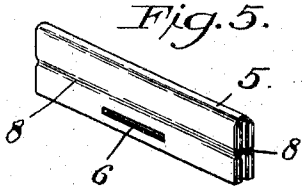
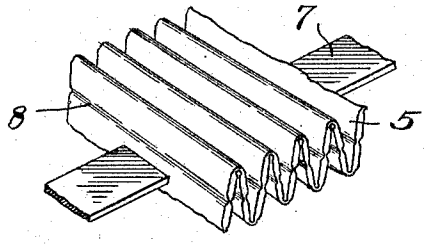


Fig. 6.



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UNITED STATES PATENT OFFICE.

PETER W. ZIEGLER, OF PHILADELPHIA, PENNSYLVANIA.

BOOKBINDING.

SPECIFICATION forming part of Letters Patent No. 759,795, dated May 10, 1904.

Application filed August 16, 1902. Serial No. 119,851. (No model.)

To all whom it may concern:

Be it known that I, PETER W. ZIEGLER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bookbinding, of which the following is a specification.

This invention relates to bookbinding, being especially designed for use in the manufacture of blank books.

The object of the invention is to provide a construction in which a perfectly flexible flat-opening loose-leaf book is obtained, in combination with means for detachably securing the leaf-sections in place, whereby predetermined leaves may be readily removed from or inserted in the book, as occasion may require.

A further object of the invention is to provide a simple, strong, and inexpensive construction by means of which folds or loops forming binding members may be held together and to the side covers without sewing.

The invention consists in the novel construction and combinations of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a view of an open blank book embodying my invention. Fig. 2 is a vertical section as on the line 2 2 of Fig. 1. Fig. 3 is a transverse section as on the line 3 3 of Fig. 1, showing the book in the closed position. Fig. 4 is a perspective view of one of the loops before folding. Fig. 5 is a similar view after folding. Fig. 6 is a view of a modification hereinafter referred to. Fig. 7 is a side elevation of the binding edge of one of the leaf-sections and disclosing the mortices formed therein.

1 designates the side covers of the book, 2 the back thereof, and 3 the detachable leaf-sections.

Arranged at intervals along the back 2 are two or more series of folds or loops 5. The folds or loops of each of these series correspond in number with the leaf-sections and are provided with openings 6 therein, through which passes a tape 7, which is secured at its ends to the respective side covers of the book. The folds or loops 5 may be constructed by pasting strips of heavy paper or cardboard between two pieces of muslin, as indicated in Fig. 4, so that when the same is folded a loop 5 is formed having a hinge 8. The folds or loops 5 may also be constructed by pasting the strips of paper on a single piece of muslin or in any other suitable manner. If desired, the folds or loops may be formed of a continuous strip and folded, as indicated in Fig. 6.

The binding edge of each leaf-section 3 is provided with mortises 3^a, into which are fitted the folds or loops 5, so that the latter will project beyond the inner folds of the leaf-sections for the reception of a retaining-wire 9. When the wire is thus applied to the loops, the leaf-section is securely bound in the book, and when the wire is withdrawn the section or leaves thereof being loose may be readily removed from the book and as readily replaced or new ones substituted therefor.

By the above-described construction it will be seen that the folds or loops have no direct connection with the back of the book and that each leaf-section has a triple-hinge connection with the tape 7—one at the tape, one at the hinge 8, and one at the point of connection of the loof with the leaf-section. This construction insures an extremely-flexible flat-opening loose-leaf book.

I claim—

1. In a flat-opening book, the combination with the back and side covers thereof, of a tape or tapes connected to the side covers and extending across the back but spaced therefrom, a series of loops connected to said tape or tapes and projecting away from the back toward the interior of the book, a series of folios or folded-leaf sections provided at their folded edges with mortises or notches adapted for receiving the inwardly-projecting loops, whereby the latter are designed to project through the leaf-sections to the interior of the latter, and retaining-wires fitted in the projecting folds of said loops and extending longitudinally of the book, whereby each of the folios or sections may be separately detached from the book without affecting the position of the other sections.

2. In a flat-opening book, the combination with the back and side covers thereof, of a tape or tapes connected to the side covers and ex-

tending across the back but spaced therefrom, a series of loops connected to said tape or tapes and projecting away from the back toward the interior of the book, the sides of said loops including hinges to enable the same folding at points intermediate of their edges, a series of folios or folded-leaf sections provided at their folded edges with mortises or notches adapted for receiving the inwardly-projecting loops, whereby the latter are designed to project through the leaf-sections to the interior of the latter, and retaining-wires fitted in the projecting folds of said loops and extending longitudinally of the book, whereby each of the folios or sections may be separately detached from the book without affecting the position of the other sections.

In testimony whereof I affix my signature in presence of two witnesses.

PETER W. ZIEGLER.

Witnesses:
ANDREW V. GROUPE,
ROBERT K. PERKINS.