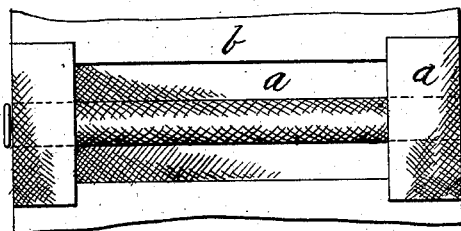
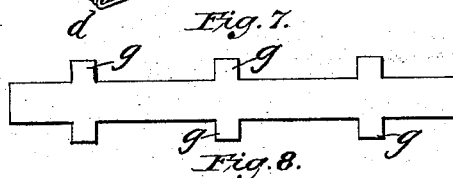
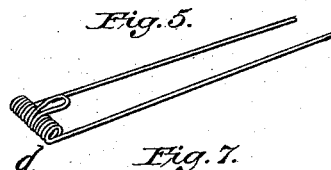
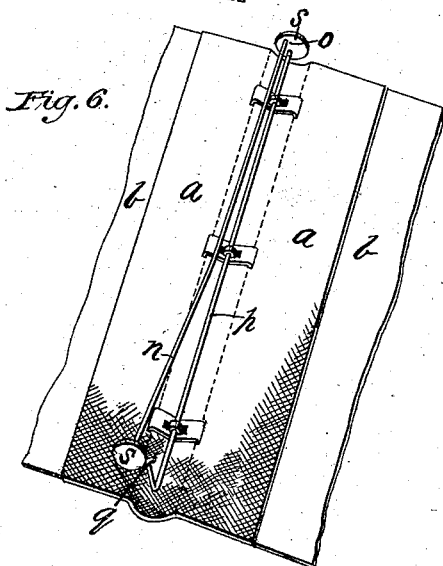
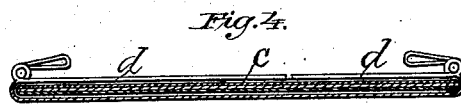
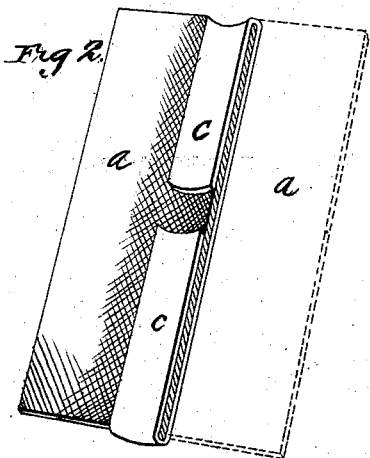
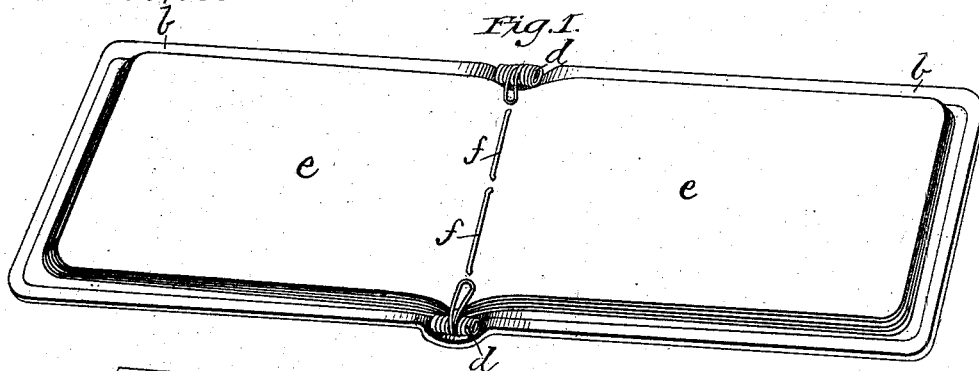


I. REYNOLDS.
TEMPORARY BINDER.

No. 193,037.

Patented July 10, 1877.



Attest:
John J. Halsted.
Pennington Halsted

Inventor:
Ira Reynolds

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Fig. 9.

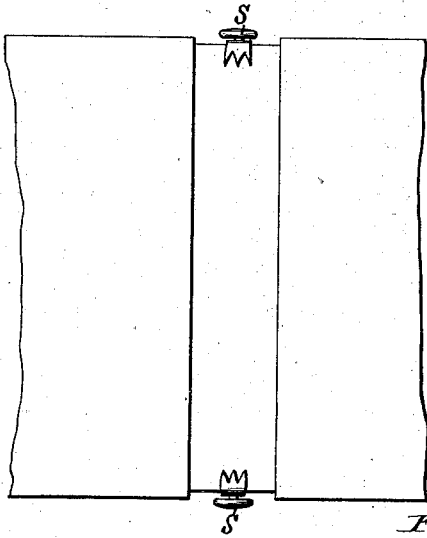


Fig. 10.

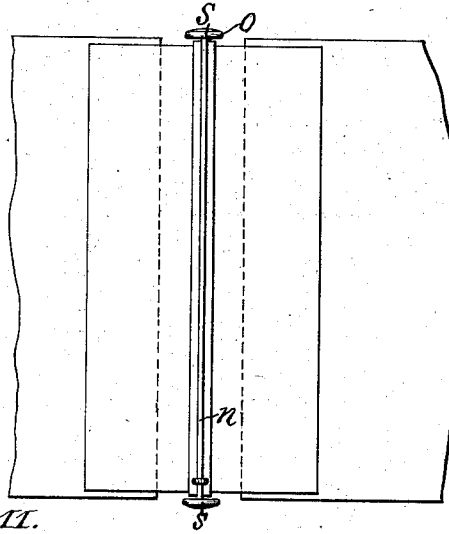
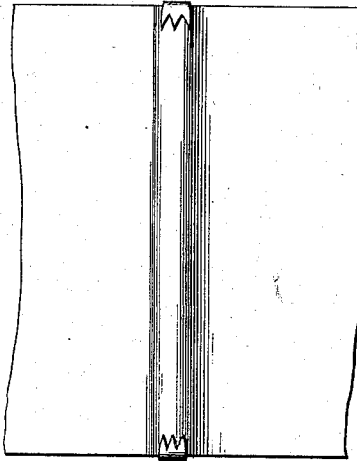


Fig. 11.



Attest:

John J. Halsted.
Pennington Halsted

Inventor:

Ira Reynolds

UNITED STATES PATENT OFFICE.

IRA REYNOLDS, OF DAYTON, OHIO, ASSIGNOR TO IRA & L. D. REYNOLDS,
OF SAME PLACE.

IMPROVEMENT IN TEMPORARY BINDERS.

Specification forming part of Letters Patent No. **193,037**, dated July 10, 1877; application filed
July 3, 1877.

To all whom it may concern:

Be it known that I, IRA REYNOLDS, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Temporary Binders and Blank-Books; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My improvements relate to that class of blank-books which have removable covers; and consist in the novel construction of the back of the cover, and the same in combination with a book composed of sheets centrally united by a single line of stitching, or equivalent fastening, whereby it is the better adapted to be applied and removed from such cover.

Figure 1 is a perspective of my improved book and cover; Fig. 2, a detail in perspective; Fig. 3, a cross-section of the back; Fig. 4, an elevation, partly in section, some of the parts being somewhat exaggerated for better display; Fig. 5, one of the spring-tongues detached; Figs. 6, 7, and 8, modifications; Fig. 9, a back view of a modified construction of the metal back as applied to the cloth, in connection with a clasp such as is shown in Fig. 6; Fig. 10, a front view of the same; and Fig. 11, a similar metal back, the ends being clasped outside of the finishing or leather cover.

To the cloth or linen back piece *a*, to which the leaves or lids *b b* of the cover are attached, I apply a single piece, *c*, of metal, which I prefer to connect with this cloth *a* by simply doubling the ends of the metal over upon itself, with the cloth clamped between such doubled ends; and in order to provide this metal with the means of holding the blank sheets of paper which compose the book, I solder, braze, or otherwise secure to that part of the metal which forms the inner face of this metal back, pieces of wire *d d*, coiled and bent, substantially as shown, so as to serve as a spring and tongue at each side of the back, under which tongue the book may be slipped and held to place. That part of the

metal back on which the cover works is first preferably covered with a binder's canvas, simply to prevent its liability to cut the linen fastening of the cover, and then the linen *a*, which supports the two lids *b* of the cover, is glued to the metal back, and the ends of the metal are then turned down upon this linen, and may be glued thereto. This linen may be double, to prevent the metal back from cutting it when the book is in use.

The book *e* is composed of a set of similar sheets, piled one upon the other in a single pile, and they are stitched or similarly secured together at their middle, through and through the whole pile, as shown at *f*, and when the leaves are folded this book has but a single central fold; but, when opened, the book readily lies open and flat, inasmuch as the stitching nowhere passes through the double of any sheet or set of sheets, and therefore it is free from the objection made to most memorandum or similar books, that the leaves and the covers have to be forced back while attempting to write in them; and, further, the paper is free from any artificial stiffening or shaping at the back, tending to prevent the easy and full spreading open of the book.

My book, with its cover, will, of itself, lie flat open upon a table, and, besides the convenience due to this feature, it also allows of writing close down to the central fold, and the book may be accordingly ruled quite close to the stitching. The flat character of the metal of the cover also affords no impediment to the flattening out of the book, because there is no high or raised part of the rigid metal between the paper and the back. The book and the cover, therefore, each lends its assistance to the other for this purpose.

Instead of securing the single metal back to the cloth by doubling over its ends, it may be provided with lateral projections or binding-pieces, as shown at *g* in Fig. 7, and which projections, after puncturing the cloth, may then be turned or doubled down upon it, and the coiled and tongued wires may be soldered to such doubled part of the back, as above described; or any other well-known appliance may be used for connecting it with the book.

In Fig. 8 the linen which connects the lids

of the cover is turned over upon the back of the lids and over the ends of the metal.

The metal back may be turned backward over the linen or other fabric, as seen in Fig. 9, or it may be turned back over the leather, as seen in Fig. 11, for the purpose of holding the two lids of the cover in position relatively to the book, which latter is held to place by means of the wire clamp *n*. (See Figs. 6 and 10.) This wire clamp is bent over so as to form two parts, yet united at *o*, the lower part *p* being secured to the metal back, and provided with a hook or catch, *q*, to secure the upper portion *n*, which serves as a clamp for securing the book to the metal back, and is supplied with heads *s* at either end.

I claim—

1. In combination with the cover and its cloth back, a metal back, *c*, formed in a single piece, and secured to the cloth by turning the ends of the metal over and upon the same, substantially as shown and described.

2. In combination with a metallic back of a book-cover, the coiled and tongued wires *d*, substantially as and for the purpose set forth.

3. The combination, with the cover provided with a metallic back, and with coiled and tongued wires *d*, as shown and described, of a book composed of sheets, all centrally united by a line of stitches passing through all the sheets alike.

4. In combination with the covering of the book-back and the wire clamp which holds the book in position, a metal back, *c*, formed in a single piece, and secured to the covering by turning the ends of the metal upon and over the outer ends of the covering, as shown and described.

IRA REYNOLDS.

Witnesses:

J. J. HALSTED,
PENNINGTON HALSTED.