

J. S. LEVER.  
Book-Binding.

No. 200,068.

Patented Feb. 5, 1878.

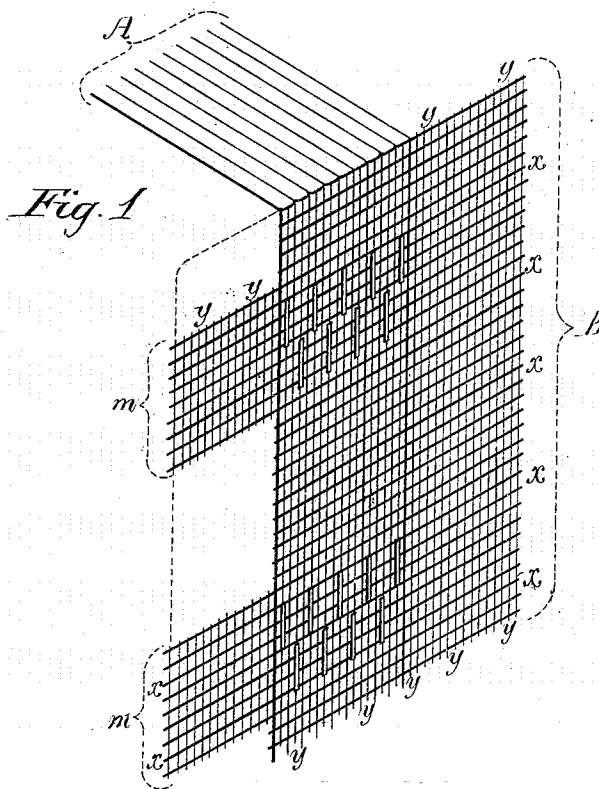
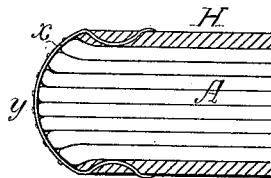


FIG. 2.



Witnesses,

Henry Cowan Jr.  
Harry Smith

Inventor,  
James S. Lever  
by his Attorneys  
Hosmer and Son

# UNITED STATES PATENT OFFICE.

JAMES S. LEVER, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN BOOK-BINDING.

Specification forming part of Letters Patent No. **200,068**, dated February 5, 1878; application filed December 5, 1877.

*To all whom it may concern:*

Be it known that I, JAMES S. LEVER, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Book-Binding, of which the following is a specification:

The object of my invention is to secure the sections of a book to the back in the simple, economical, and durable manner described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view, and Fig. 2 a section, of part of a book, illustrating the mode of carrying my invention into effect.

The sections A of the book are secured at their folded rear edges by staples or by stitching to a strip, B, of open fabric, which extends throughout, or nearly throughout, the entire length of the sections, glue being applied to the folded edges of the sections, and to that portion of the fabric which is in contact with the said sections.

While the strip may be composed of the ordinary open fabric commonly used by book-binders, I prefer to use a fabric composed of strong substantial threads *x*, interwoven with lighter threads *y*, which may be more or less fragile, providing they serve to maintain the stronger threads in their proper position.

The strip B is so cut and applied that the strong threads extend across the back, so as to form a substantial medium by which the side boards may be hinged to the pack of sections.

While the strong threads are comparatively thick, the other threads are so thin that proper interstices are presented for the penetration of the glue.

The projecting portions of the strip on each side of the pack of sections may be glued directly to the side boards; but I prefer to secure these boards in the manner which I will now proceed to explain.

After the strip B of the fabric described has been secured to the folded edges of the sections by staples or stitches and glue, I cut away the overhanging edges, so that nothing remains but short bands or tapes *m* of the fabric, as shown on the left of Fig. 1. I then apply to the pack of sections one of the side boards H, as shown in Fig. 2, which has been pierced with an awl, in the ordinary manner, at points opposite the tapes *m*, after which I apply a little paste to each tape, twist the latter at the ends, so as to reduce them to a

point, and pass the pointed ends of the tapes through the orifices in the back, taking care to draw the tape tight, so that the side board may fit snugly to its place, after which I secure the opposite side board in a similar manner.

As soon as the paste applied to these twisted ends of the tapes is dry, the sides will be firmly secured to the back of the book, which is now ready to be finished in any style desired.

In order to understand the advantages of this plan it will be best to bear in mind that in ordinary binding strong and comparatively thick cords are stitched to the folded edges of the sections, and that the ends of these cords are passed through orifices in the side boards, as described above. These thick cords, even in the best binding, form lumps, and these appear in the leather after the latter has been applied to complete the binding, and the consequence of this is that the leather is soon worn where the lumps occur, and the book is more or less disfigured.

In my improvement the projecting tapes *m* are twisted at the end for insertion through the orifices of the side boards; but the portion of the tape near the edge of the board is so flat as to present but a very slight protuberance, which scarcely appears on the surface of the leather. At the same time these flat portions of the tape constitute strong hinges for the side boards, owing to the direction in which the strong strings of the fabric are arranged.

I claim as my invention—

1. The combination of the sections and side boards of a book with a strip of fabric having strong transverse threads interwoven with light longitudinal threads, and secured to the folded backs of the said sections, all substantially as set forth.

2. The mode herein described of securing the sides of books to the sections—that is to say, securing a strip of open fabric by staples or stitches and glue or other equivalent cement to the sections, cutting away the strips, so as to leave tapes *m*, and securing the latter to the sides, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses: JAS. S. LEVER.  
RICHARD L. GARDINER,  
HARRY SMITH.