E. S. BOYNTON.

BOOK-BINDING.

No. 193,109. Patented July 17, 1877.

Fig. 1.

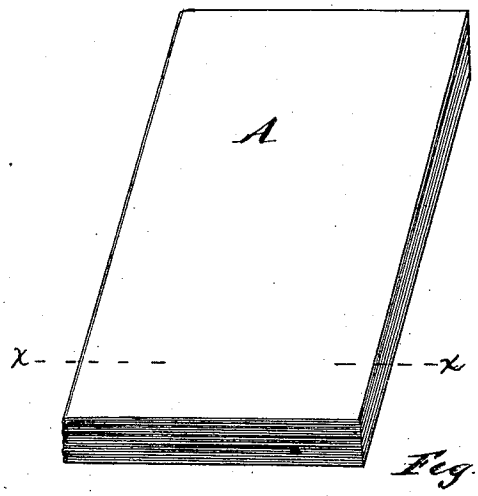


Fig. 2.

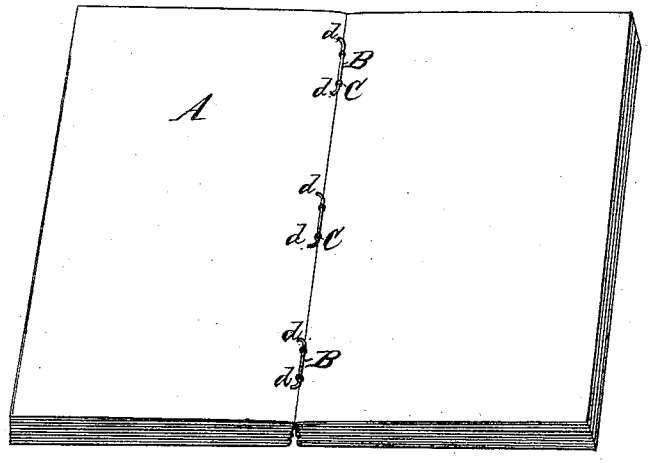


Fig. 3.

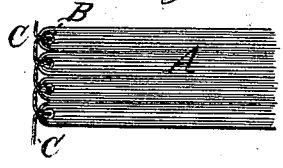


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BOOK-BINDING.

Specification forming part of Letters Patent No. **193,109**, dated July 17, 1877; application filed June 29, 1877.

To all whom it may concern:

Be it known that I, EDWARD S. BOYNTON, of the city, county, and State of New York, have invented a new and useful Improvement in Books, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my improved book; Fig. 2, a plan view thereof when open; Fig. 3, a transverse section of the same at line *x x* of Fig. 1; Fig. 4, a view of the back of the book, showing the manner of uniting the signatures.

A is the book; B, the wire; C, the cord; *d d*, ends of wire.

The object of my invention is to produce a machine-made book of greater strength and flexibility than has before been known.

I accomplish this by passing a loop of one or more bands through the center of a folded signature, and inserting within the loop a securing-pin of metal, card-board, or any material having sufficient firmness to stay, the loop of the band being so formed as to entirely encircle the securing-pin. As many series of loops and pins may be employed as the book-maker deems necessary, according to the strength required; or a single pin may run nearly the entire length of the signature, encircled by as many loops as is desired.

The ends of the wires may be turned as shown in Fig. 2, to guard against accidental withdrawal.

The advantages of a book thus made are increased strength and securing flatness of leaves when opened, as each signature turns upon a hinge of its own, as is manifest by looking at Fig. 3, and especially its capability of being made by machinery.

What I claim, and desire to secure by Letters Patent, is—

A book the signatures of which are secured by a pin and one or more loops completely surrounding the pin, substantially in the manner described.

EDWARD S. BOYNTON.

Witnesses:

S. J. GORDON,

JOHN W. RIPLEY.