H. H. EDWARDS.

METALLIC SELF-BINDERS FOR BOOKS.

No. 186,815. Patented Jan. 30, 1877.

fig. 1.

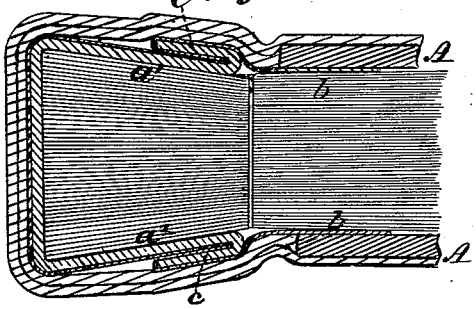


fig. 2.

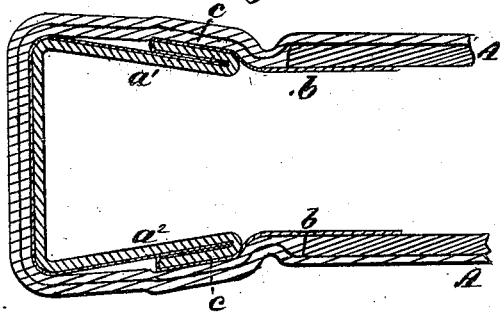


fig. 3.

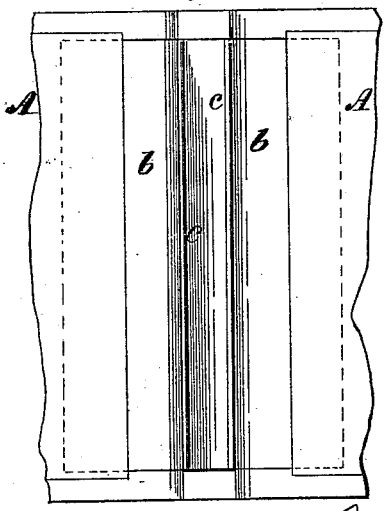


fig. 4.

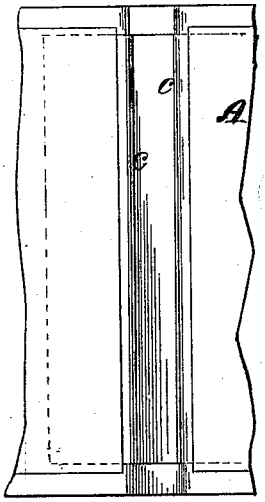


fig. 5

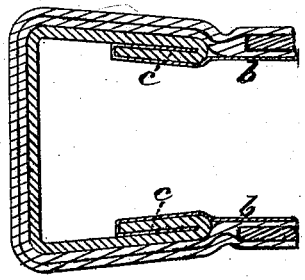


fig. 6.

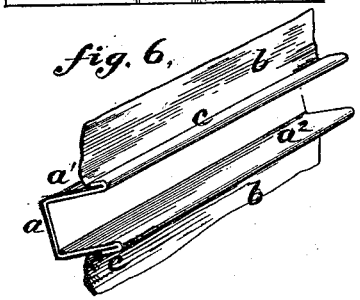


fig. 7.

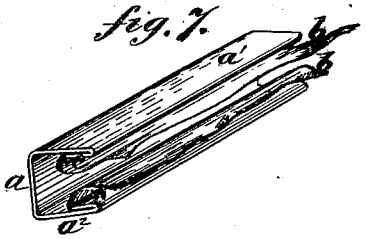


fig. 8.

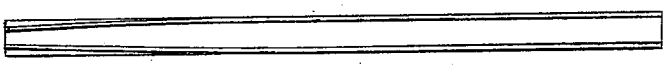
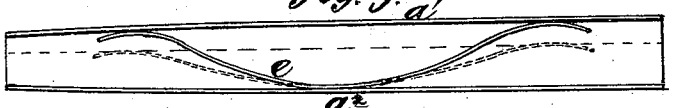


fig. 9.



Witnesses:

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Henry H. Edwards
by Johnson & Johnson
Attys

UNITED STATES PATENT OFFICE.

HENRY H. EDWARDS, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN METALLIC SELF-BINDERS FOR BOOKS.

Specification forming part of Letters Patent No. **186,815**, dated January 30, 1877; application filed June 23, 1876.

To all whom it may concern:

Be it known that I, HENRY H. EDWARDS, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Metallic Self-Binder for Books and Tablets, of which the following is a specification:

My invention is designed to afford means for securing metallic binders for tablets to the back of the cover in a simple and strong manner, by means of strips of muslin secured or clamped directly to the metallic binder, whereby it is made firm in the case or cover, with the advantage of obtaining a smooth outside surface in the cover-back to which the binder is fastened. This I accomplish by securing muslin strips to the edges of the metallic binder, by upsetting and lapping over the parallel edges of the binder sides and clamping the muslin strips thereby, so that they become the means for fastening the binder in the case, by pasting or otherwise, on the inner sides of the cover-boards, and in this way avoid piercing said cover-boards, or making any direct metallic connection therewith.

This method of attachment may be made by having the clamping-lips either on the inner or outer sides of the binder. When, however, formed on the inner sides, they serve the additional function of ribs to seize and hold the tablet in place as it is slid endwise into one of the open ends of the binder; but when these clamp-lips are formed on the outer sides, the binder sides are made to taper lengthwise of the binder, from one open end to the other, and afford thereby a spring-wedge hold upon the inserted book, or effect the same purpose by approaching each other obliquely without departing from the longitudinal parallel, and thus form a long dovetail. This construction is adapted for tablets stitched at the end and punctured along the line of the upset binder, and made to fill the space between the sides of the binder. When, however, the binder and cover is adapted as a holder for magazines, I employ a bow-spring secured to one side of the binder, by which to hold magazines of varying thicknesses in place. These variations are, however, subordinate to the chief feature of my invention, which consists in the plan of utilizing the muslin strips for fastening the binder to the covers and adapting the book either for permanent use with tablets or temporary use with magazines.

In the accompanying drawings, Figure 1 represents a section of a portion of a book-cover with my metallic binder secured thereto and the tablet in place; Fig. 2, a similar section with the tablet removed; Fig. 3, a view of the binder with the covers laid open, and in which the muslin strips are clamped to the outer sides of the binder; Fig. 4, a similar view, showing the muslin strips clamped to the inner sides of the binder. Fig. 5 is a section of the same. Figs. 6 and 7 are, respectively, the metallic binders in detail, with their muslin fastening in one piece and in two pieces, in connection with the inside-lapped and outside-lapped clamping-lips.

The metallic binder *a* proper is preferably of tin, formed by upsetting the sides a^1 a^2 of a rectangular strip. This binder may be inserted in the inner side of a backed book-cover, or may itself form the back to join the two separate sides or boards A. In either case, I effect its fastening to the covers by a strip or strips of muslin secured to the open edges of the binder, by upsetting and lapping said edges, so as to form clamps *c c*, between which and the sides a^1 a^2 such strip or strips is or are clamped, so as to leave narrow portions or unions *b b*, by which to secure them to the ends of the covers, as shown. When two separate muslin strips, as shown in Figs. 4, 5, and 7, are used, they are secured to inwardly-lapped clamp-lips *c c*, in which case these lips also form ridges, which seize and bite upon the tablet as it is inserted into the open-end binder. But when the muslin fastening is in one piece, as shown in Figs. 1, 2, 3, and 6, it is secured to outwardly-lapped clamp-lips, in which case it covers the closed outer side of the metallic binder, and the latter has its sides a^1 a^2 inclining toward each other at their open edges, to give sufficient hold upon the tablet to keep it in place; and to aid in this the binder sides a^1 a^2 may taper lengthwise toward one end, so as to have a wedge-like clamping hold upon the tablet, as shown in Fig. 8. By these muslin fastenings the binder is secured, by flexible connections, direct

to the covers, and makes a durable and smooth fastening, with joint-strips clamped to the metallic back, and the covers secured to these muslin joint-strips.

For magazines, I employ a comparatively wide binder, and secure to one of the side strips, a^1 or a^2, bow-spring *e*, in the middle of its length, so as to allow different thicknesses of books to be inserted between one side of the binder and the ends of the spring, and thus hold it in place, as shown in Fig. 9, the binder sides for which purpose may also incline in cross-section, dovetail-like, and taper from one end to the other in wedge form, to render the clamping hold upon the book more secure.

The covers may be finished in any approved style, and the muslin fastenings secured thereto in any approved way. The closed back of the metallic binder may be flat or curved, as may be desired; and when made tapering lengthwise, the book or tablet must be inserted from the widest open end.

This metallic self-binder is also very useful for checks, notes, drafts, prescription and reporters' books.

I claim—

1. The upset and lapped binder-lips *c c*, whereby to form clamps for the muslin fastenings for the covers at the sides of the binder.

2. The upset and lapped binder-lips *c c*, as clamps for the muslin fastenings for the covers, in combination with the removable tablet, whereby to form seizing and biting edges on both sides of the tablet, to hold it in place.

3. The metallic binder having upset and lapped clamp-edge lips *c c*, and having its sides approaching each other obliquely, for the purpose stated.

4. The metallic binder having upset and lapped-edge lips *c c*, and having its sides approaching each other obliquely, and tapering toward each other from one end to the other, for the purpose stated.

5. The combination of the metallic binder, having the clamp-lips *c c* for the muslin fastenings, with the bow-spring *e*, as and for the purpose stated.

6. As a new article of manufacture, the within-described tablet or book cover, composed of the back, the metallic binder, and the muslin joint-strips clamped to the metallic back as fastenings for said cover.

In testimony whereof I have affixed my signature in the presence of two witnesses.

HENRY H. EDWARDS.

Witnesses:

ALBEE SMITH,

WM. CHENEY.