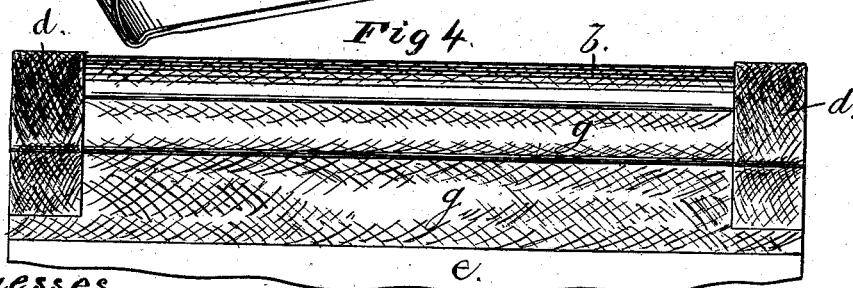
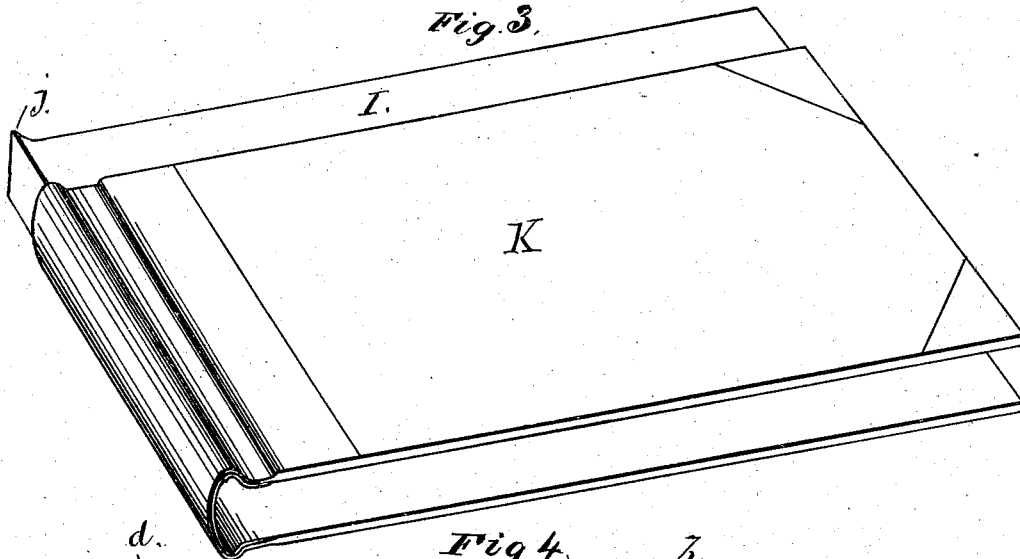
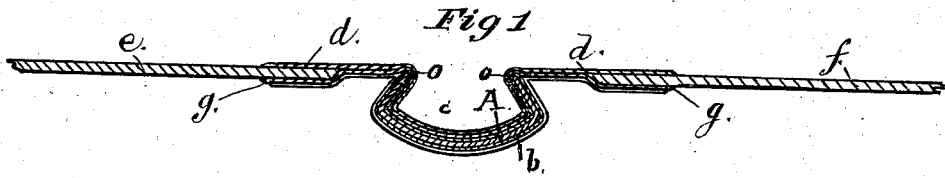


I. REYNOLDS.
BOOKS AND COVERS.

No. 193,035.

Patented July 10, 1877.



Witnesses.

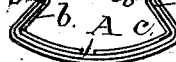
M R & Allen

J. J. Halsted

Fig 5



Fig 6



Inventor

Ira Reynolds

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN BOOKS AND COVERS.

Specification forming part of Letters Patent No. 193,035, dated July 10, 1877; application filed
June 23, 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 Spring-Back Removable Book-Bindings; 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 present invention is a further improvement upon that described in my Patent No. 98,191, dated December 21, 1869, and while applicable to memorandum or account books of any size or thickness which are adapted to be removed from their covers, it is more especially intended for those of a larger size, and has for one of its leading objects the better protection of the flexible cloth or linen of the back which connects the two leaves of the cover from being cut, abraded, or worn away by the edges of the metal during the frequent handling of the open book in use, and the relieving of such cloth-covered edges from the direct pressure or weight of the book itself upon them, such weight being the cause (in former experience) of such injury to the cover, especially in books of the larger sizes, and containing a correspondingly greater body and weight of paper.

In the accompanying drawings, Figure 1 is a section of my improved removable cover, showing the coverings in the spring-back. Fig. 2 is a section with a supplemental metal back. Fig. 3 shows a book partially withdrawn from the cover; Fig. 4, a plan in part, showing more clearly certain parts; Figs. 5 and 6, detail views.

As shown in Figs. 1 and 6, the metal back A is covered, first, by a strip of cloth, *b*, over its back, edges, and ends, and the edges of this strip are then turned down into the concave or inside *c* of the metal, and there glued; indeed, the whole surface of the strip may be thus firmly secured to the metal. By this means the outer or convex part of the metal is provided with a non-metallic textile surface,

to which the leather or finishing material of the cover may adhere more firmly than when glued directly to the metal. After the spring-back A has had the strip secured to it, as above described, the linen or cloth *d*, which is used to connect the two lids *e f* of the cover, is next pasted or glued to the inside of such covered metal; or, by way of still further security and additional protection against the edges of the metal back, an additional strip, *g*, of cloth may be placed inside the metal back, and, at its edges, secured or pasted to the outside of the lids, as shown, before the linen piece *d* is put on. And in such case the piece *d* lies outside of this cloth, but its edges are pasted inside of the lids, and its ends are turned outside of the leaves of the cover, and also outside of the metal spring.

In the modification shown in Fig. 2 I vary this construction by using, in connection with the metal spring-back like A, another strip of curved metal, *h*, but having no inwardly-turned lips or edges, such as those shown at *i* on the piece A. The piece *h* is first covered with cloth, as before described with regard to A, the edges of said cloth being turned into the concave part, and there glued or fastened to it. Next, if desired, a cloth strip, *g*, may be applied, in the manner before stated, to the inside of *h*, and to the outside of the leaves of the cover. The linen or cloth *d* is then put inside of the piece *h* and glued or secured thereto, and its edges are secured to the inside of the lids of the cover; then the metal A is placed inside the concave of metal *h*, and riveted to these cloths and to such metal.

The metal piece *h*, when applied to the piece A, is, preferably, a little more bowed or concave than it—*i. e.*, is bent to a slightly smaller curve or radius, and, consequently, when they are riveted together closely to each other the outer one supports or strengthens the other.

It will now be seen that, by the above-described improvements, the weight of the book, and also the pressure given by the arm or hand of the person, when resting on or holding the book while writing in or using it, does not come on the intumed edges of the spring-back A, nor cause the linen *d* to rest directly on, or to be worn, chafed, or cut by, such

edges. The result is, that the cover is made much more durable, and better adapted for large as well as for the small books; that the increased weight or thickness of book does not increase the tendency to wear or destroy the cover at its thinnest or flexible part; that the metal back A is more fixedly and permanently held to the cover, and the whole structure improved generally.

The removable book to be used with these improved covers is shown at I, Fig. 3, and is substantially the same at its back as that shown in my aforesaid patent—that is, it has ridges *j*, corresponding with the shape of the spring, which adapt it to be slid into or out of the cover, so that one cover may answer for a large number of books, as the latter are from time to time filled up or disposed of.

In Fig. 3, K indicates my improved cover after the same has received its final exterior ornamental covering of leather or other material.

I claim—

1. The metallic spring-back, independently covered with cloth or other suitable fabric before any other attachments are made thereto, to prevent the edges *o o* of the spring, from

cutting the linen or other fabric which is placed on the inside of the cloth-covered spring, and passes over the edges thereof, to hold the two lids of the cover, substantially as herein set forth.

2. In combination with the spring-back, as independently covered with cloth or other suitable fabric, a book formed with ribs, and correspondingly so shaped as to be held firmly by the two inwardly-turned edges of the cloth-covered spring-back, substantially as herein set forth.

3. The combination of the double spring-back shown in Fig. 2, the outer spring being covered with cloth or other fabric, to prevent the cutting of the fabric which holds together the lids of the cover, said fabric being firmly secured between the two springs by being glued and riveted between the same, thus leaving the inward spring free and open to receive and grasp a book having ribs correspondingly so shaped as to be held firmly by the inwardly-turned parts of the inner spring.

IRA REYNOLDS.

Witnesses:

PENNINGTON HALSTED,
GEO. T. SMALLWOOD, Jr.