

# G. H. Reynolds. Book Binding.

No. 100,069.

Patented Feb. 22, 1870.

Fig. 1.

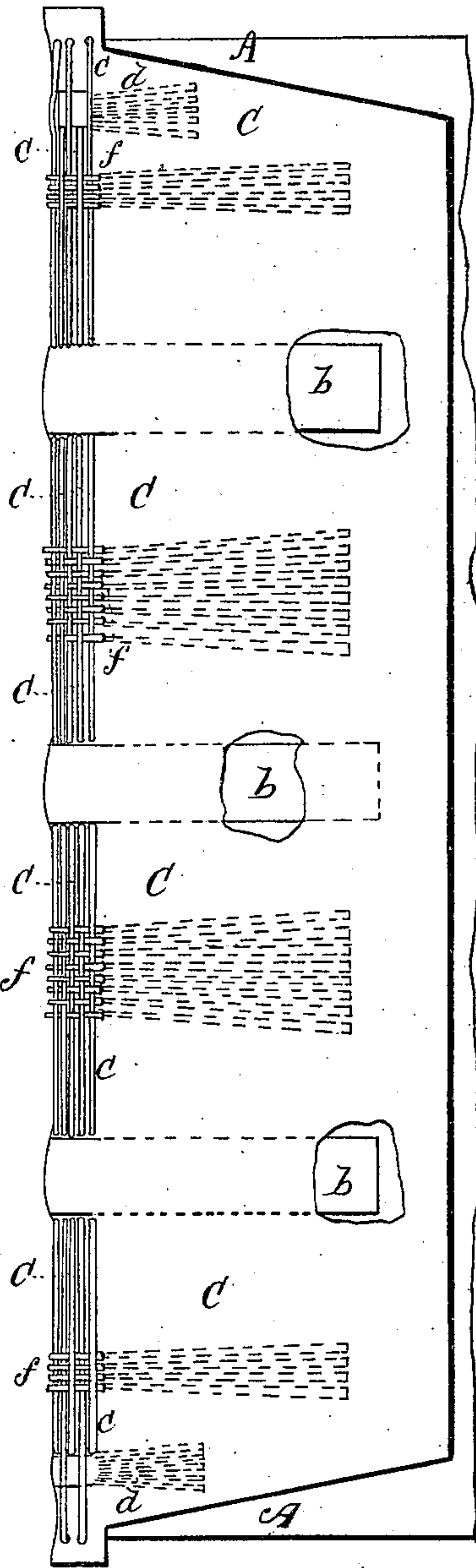


Fig. 2. Fig. 3.

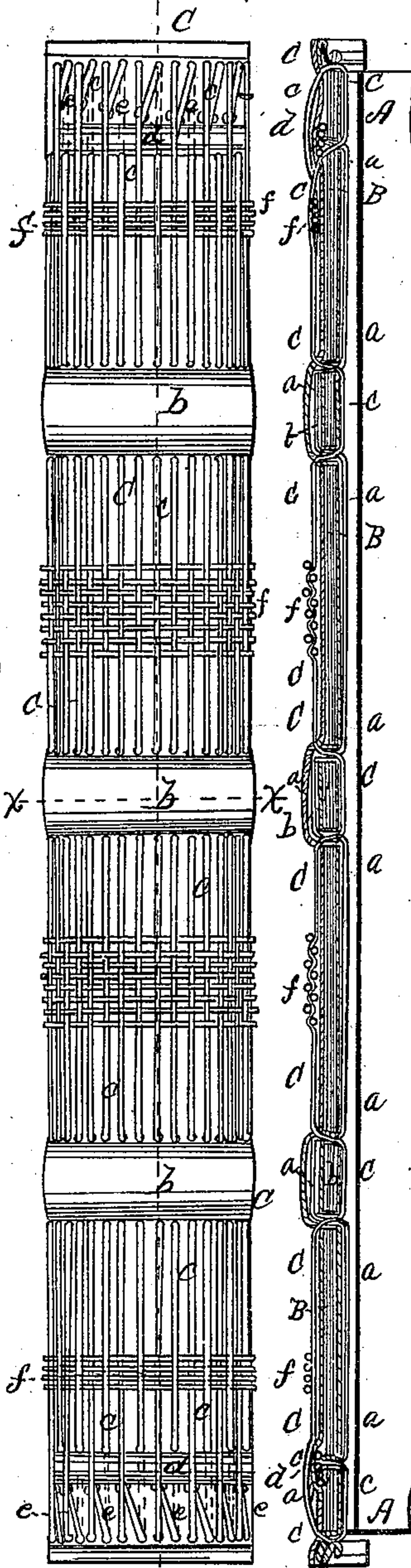


Fig. 5.



Fig. 4.

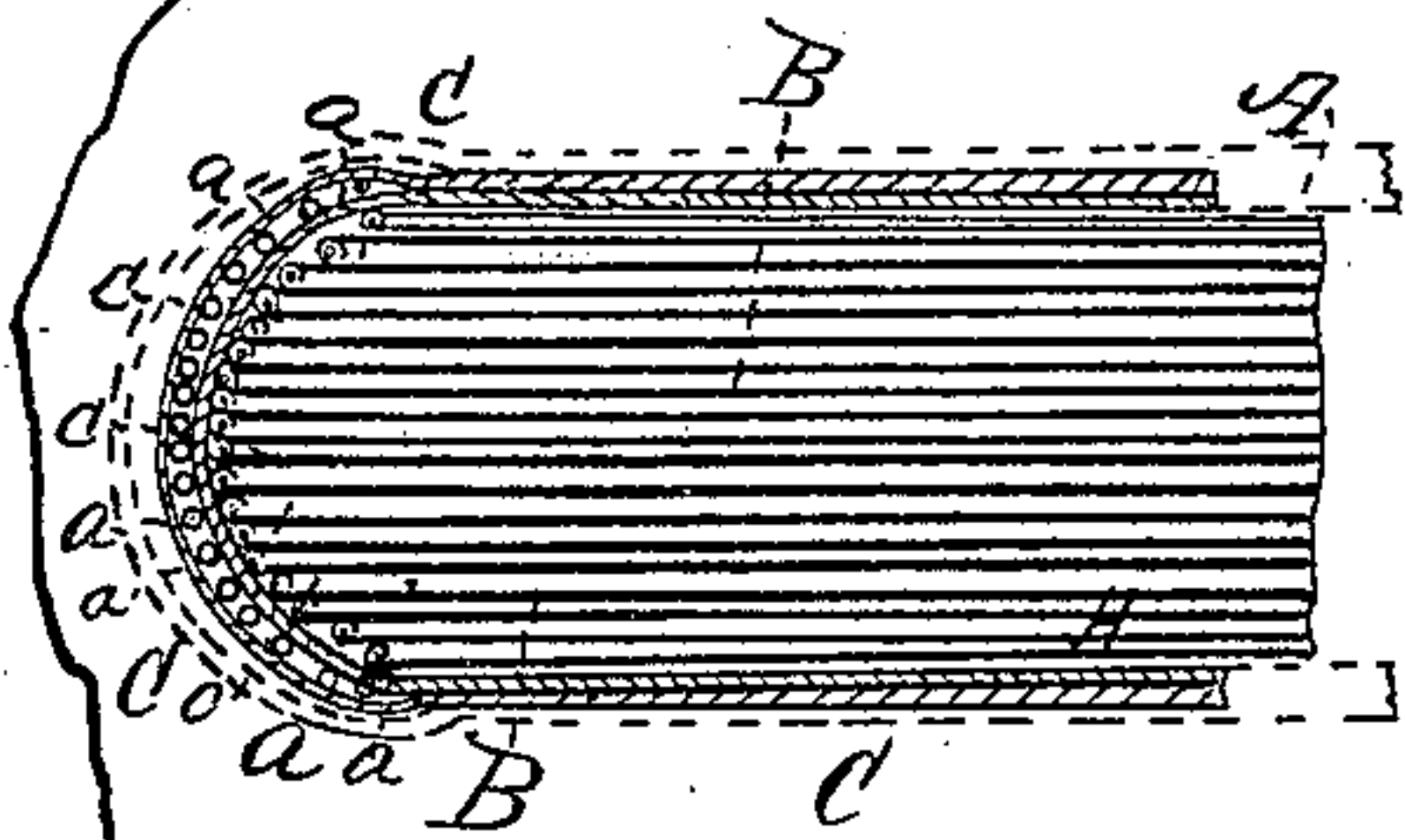
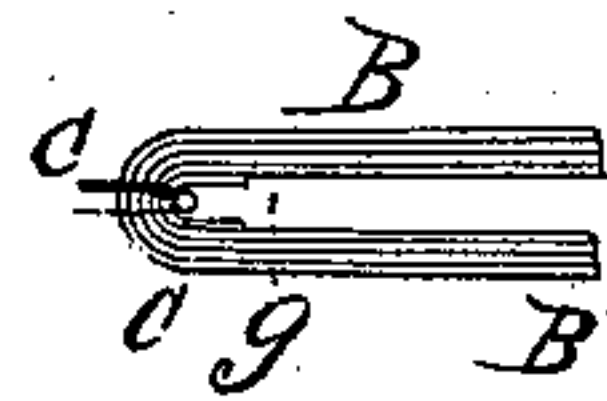


Fig. 6.



Witnesses

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Atty.



# United States Patent Office.

GEORGE H. REYNOLDS, OF NEW YORK, N. Y.

Letters Patent No. 100,069, dated February 22, 1870.

## IMPROVEMENT IN BOOK-BINDING.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, GEORGE H. REYNOLDS, of the city, county, and State of New York, have invented a new and improved Blank-Book; 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 make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 represents a side view, partly in section, of my improved blank-book.

Figure 2 is a back view of the same.

Figure 3 is a longitudinal section of the same.

Figure 4 is a transverse section of the same.

Figure 5 is a detail side view of the outer end loops formed during the binding process.

Figure 6 is a detail transverse section on an enlarged scale of one section of the book.

Similar letters of reference indicate corresponding parts.

This invention relates to a new method of binding blank-books and all other books which are to be used for a considerable length of time, and in which great strength and durability is the chief object.

The invention consists more particularly in a novel system of arranging an endless upright string for binding the strapping to the back of the book, and in the manner of disposing such string.

The invention also consists in the use of transverse strings which are applied to the outside of the strapping and interwoven with the aforementioned upright string.

A, in the drawings, represents the inner back of the book.

B B are the several sections of paper that constitute the body of the book.

These sections are fastened to the inner back and bound together by means of strings *a a* in the ordinary manner, said strings passing through the sections and around the parchment strips *b b*, as usual. The preliminary binding is thus made as in all ordinary books.

The strapping C is then pasted upon the back of the book and upon the middle portions of the parchment strips to cover the strings *a* on the back of the book.

The several sections are then, by an endless string *c*, bound bound to the strapping. This string *c* is applied as follows:

It is with a needle put through the strapping, and a section near one end of the book is then brought out over the end of the section through the extreme end of the strapping. On the outside it is carried down in a straight line to the first parchment strip *b*. There it is again put into the section and out again below the strip.

In this manner it is brought into the section under every parchment strip.

At the other end of the book it is under the inner transverse strings *d*, which serve to retain the loops of the strings *a* put into the section, then brought out over the end of the section through the extreme end of the strapping.

On the outside of the latter it is then carried obliquely, as at *e*, in fig. 2, to opposite the next section, carried around the end of the same, and then along the back and under the parchment strips, as herein before set forth.

Thus the strapping is firmly secured to the book and the sections are securely tied to it. As each string *c* passes under the parchment strips, and each length of string *a* over the same, it is evident that said parchment strips, the main retainers of the back of the book, are firmly secured.

The inner side of every section is lined with a narrow strip, *g*, of tracing linen, (as in fig. 6,) which prevents the several leaves from being accidentally torn out at their junctions, and which is not easily perceptible.

*f f* are transverse strings fastened by glue or otherwise, with their ends to the leaves of the strapping, and carried through the latter and interwoven with the string *c* on the back of the book, as is clearly shown in fig. 2. These transverse strings are arranged in sections between the parchment strips, and form strengthening devices to relieve the said strips from great strain during the opening and closing of the book. They also serve to make the string *c* tense and reliable.

The outer covering is applied upon the strapping in the usual manner, and will conceal the strings *c* and *f*.

The inner lining A of the back is pasted to the leaves of the strapping, thereby covering the ends of the strings *f*.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The endless string *c*, arranged to bind the several sections of a book to the strapping after they were already bound together, substantially as herein shown and described.

2. The herein-described manner of disposing the secondary binding string *c* by carrying it around the ends of each section and under the parchment strips, substantially as herein shown and described.

3. The transverse strings *f*, interwoven with the outer binding string *c*, substantially as herein shown and described, for the purpose specified.

GEO. H. REYNOLDS.

Witnesses:

FRANK BLOCKLEY,  
ALEX. F. ROBERTS.