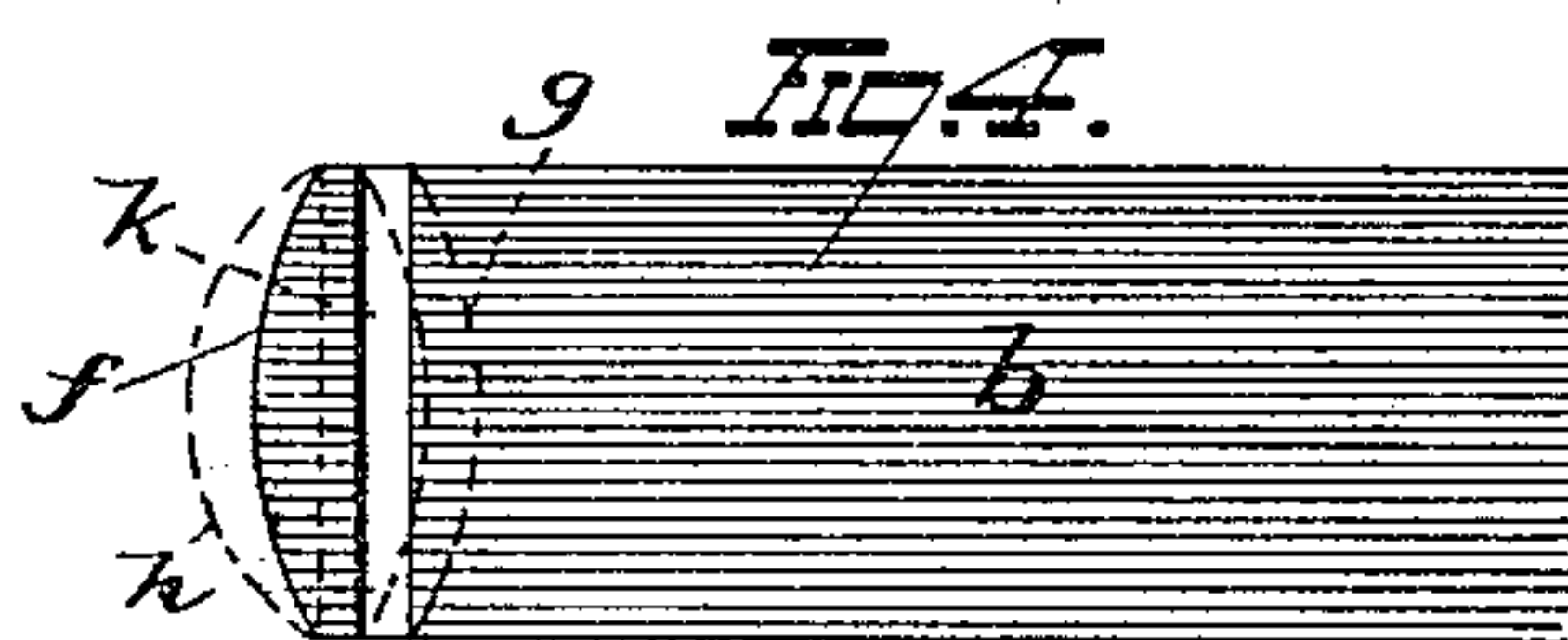
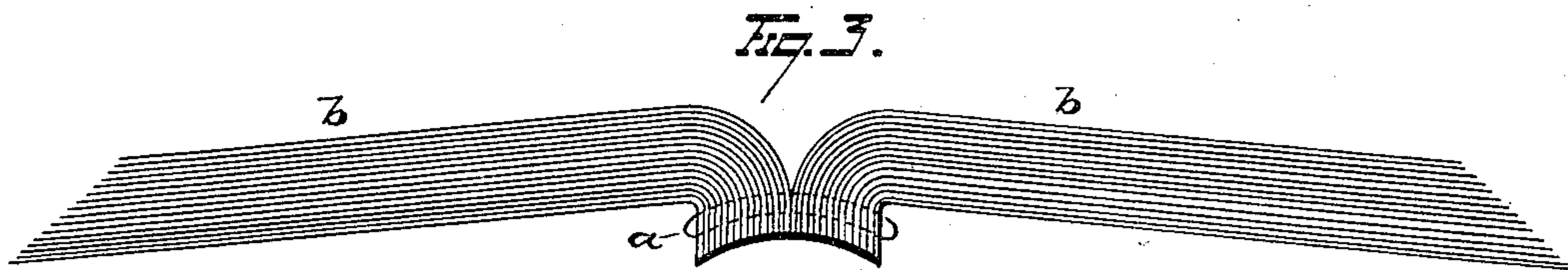
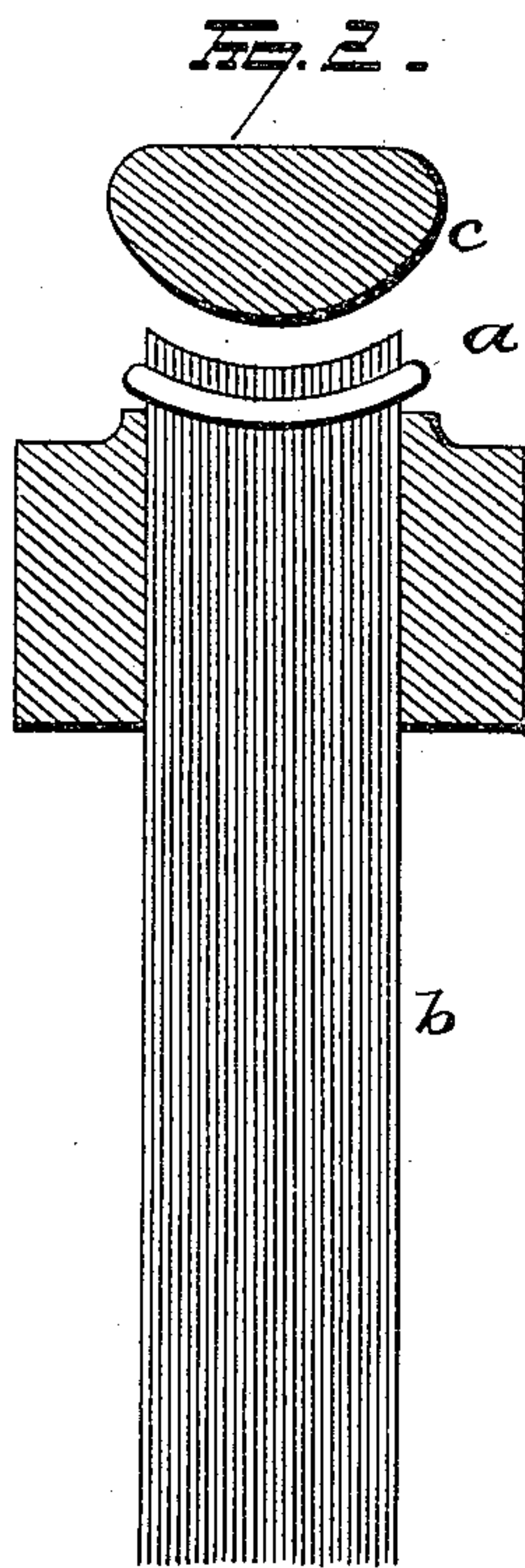
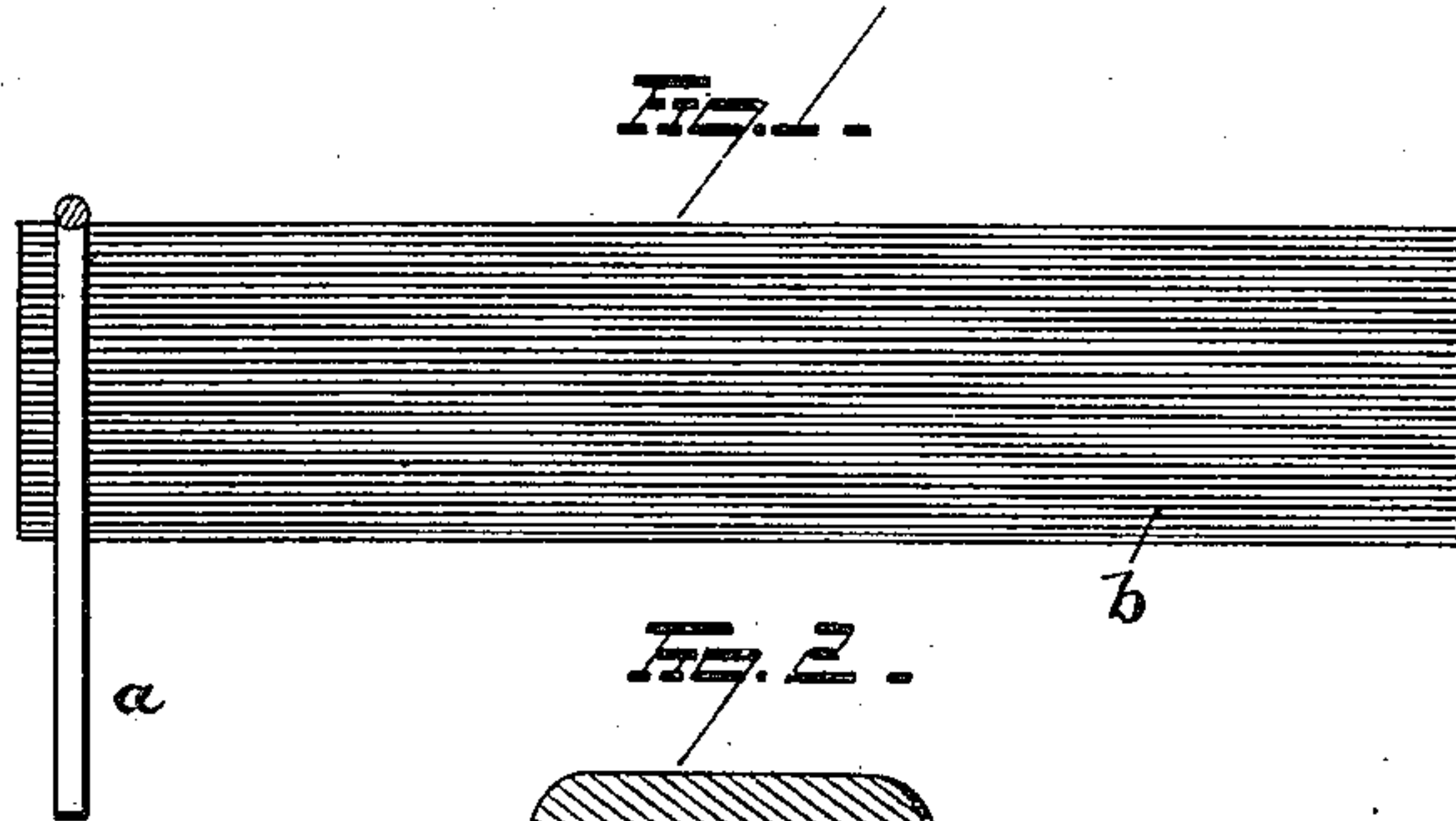


H. M. HOYT.
Book Binding.

No. 238,782.

Patented March 15, 1881.



WITNESSES

E. J. Battleground
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UNITED STATES PATENT OFFICE.

HOWARD M. HOYT, OF NEW YORK, N. Y.

BOOK-BINDING.

SPECIFICATION forming part of Letters Patent No. 238,782, dated March 15, 1881.

Application filed February 24, 1880. Patented in Canada January 23, 1879.

To all whom it may concern:

Be it known that I, HOWARD M. HOYT, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Book-Binding, (for which I have obtained a patent in Canada, No. 9,593, bearing date January 23, 1879;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a method of applying a wire binding to books, whereby the book is held much more firmly at the back than heretofore, and the leaves can be opened to the back with as much freedom, or nearly so, as the ordinary sewed books.

In the drawings, Figure 1 is a section representing the first stage in the binding operation. Fig. 2 is a section representing the mode of binding the back of the book, and Fig. 3 shows the book as opened.

The sheets or leaves of paper are laid together in the manner usual in book-binding, and at the place required for the binding-wires there are punctures or perforations, preferably drilled, and then the staple-shaped binding-wires are inserted while straight. These wires *a* are shown as inserted through the sheets *b* in Fig. 1. The ends of the wires are next bent over parallel to the back edges of the sheets, so as to hold the sheets together firmly. The book is then placed in a binder's press or other clamp, with the book upwardly, and the center portions of the staple-wires *a* and the ends resting upon the top surfaces of the clamp, or nearly so, and pressure is applied sufficiently to hold the book in the clamp. An instrument or bar, such as shown at *c*, is now laid upon the back of the book and pressure applied, by blows from a hammer or other instrument, until the back of the book assumes the desired shape, and the wires are thereby bent to an arc of a circle the center of which is behind the back of the book. This operation

tightens the wires, holding the sheets more firmly than before, and at the same time the back folds of the sheets are rendered pliant and in a condition similar to that resulting from the hammering of the back of the book in ordinary binding.

The result of this method of binding is, that volumes of greater or less size can be reliably bound without resorting to sewing, and the sheets will lie over on each side when the book is open, and allow access to the inner portions of the sheets as well as hand-sewed books, because the wires are in the arc of a circle to allow the leaves to fall over freely, as illustrated in Fig. 3. I remark that the wires may be round or flat, or formed of strips of sheet metal.

If it is desired to have the book-back either convex or flat, the holes for the wires are bored when the sheets are laid together with the back convex, as at *f*, Fig. 4, after which the wires are bent into the arc of a circle, as at *g*, and the back and edges of the book will be square, the dotted line *h* representing the back of the book; but if the margin of the sheets will allow of the same, the back may be convexed to the dotted line *h* and the wires inserted and afterward bent as aforesaid, the back being forced by a concave instrument to the shape shown by the full line at *f*, so as to leave the back in a convex form. The wire may be bent into the arc of a circle before the ends are clinched, or afterward.

I claim as my invention—

The method herein specified of binding books, consisting in inserting the binding-wires straight and near the back edge of the book, clinching such wires, and bending the wires into the arc of a circle, for the purposes and as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of February, 1880.

HOWARD M. HOYT.

Witnesses:

E. M. CAMPBELL,
E. J. WHITE.