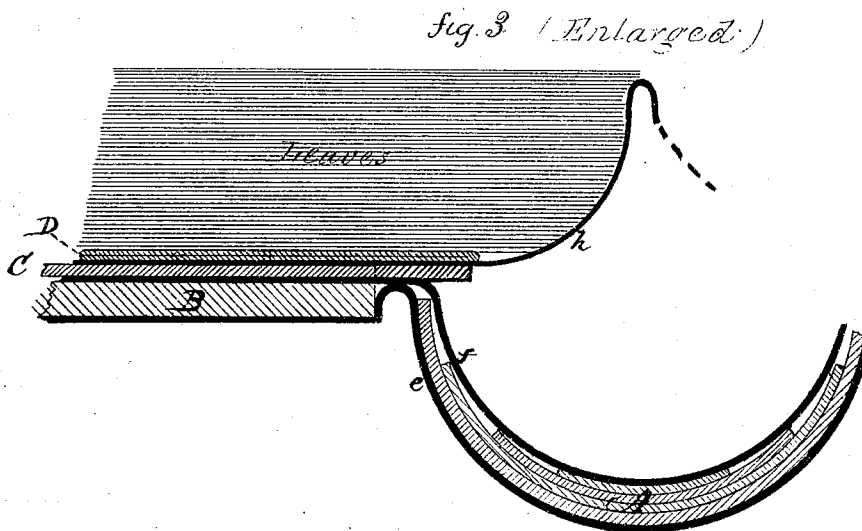
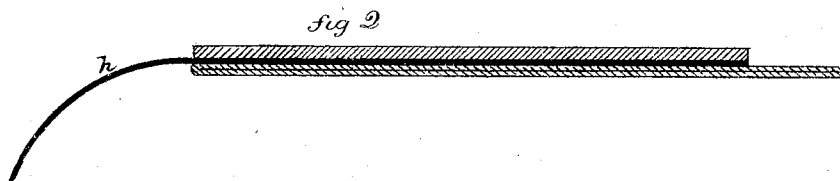
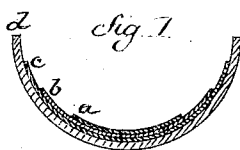


GEORGE SMITH.

Book Binding.

No. 123,947.

Patented Feb. 20, 1872.



Witnesses

J. H. Shumway
A. J. Tibbitts

GEORGE SMITH

Inventor

By his Atty.

Wm. E. Earle

UNITED STATES PATENT OFFICE.

GEORGE SMITH, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN BOOK-BINDING.

Specification forming part of Letters Patent No. 123,947, dated February 20, 1872.

To all whom it may concern:

Be it known that I, GEORGE SMITH, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a new Improvement in Binding Books; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes a part of this specification, and represents, in—

Figure 1, a section of the back; Fig. 2, a section of the lining of one of the covers; and in Fig. 3, a transverse section on an enlarged scale through a book bound by my improved method.

This invention relates to an improvement in that class of book-binding known as "spring-backs," the object being to simplify the construction of the back, and to cause the book, when open, to lie perfectly flat; and the invention consists, first, in the construction of the back from several successive thicknesses of board, each wider than the other, glued together and heated, and while hot bent into the form required, and there set without the intervention of moisture or chamfering, or rolling the board, the different widths of the layers making the necessary reduction in thickness from the center to the edges; second, the insertion of a stiff piece of pasteboard or other suitable material in each cover upon the inside, projecting inward beyond the edge of the cover parallel with the covers, and to this projecting board the lining of the book-back is attached, so that when the book is open the edges of these boards, carrying the outer leaves of the book further in toward the center than by the usual construction, throw up the center, causing the two pages to open perfectly flat. I take for the inner portion of the book several strips, *a b c*, more or less in number, according to the size of the book, each successive piece being wider than the last. These strips are glued

together, (common bonnet-board being used for this purpose,) and outside these I glue a thin piece, *d*, of tar-board, or similar material, wider than the other parts, as denoted in Fig. 1, and over this a piece of thin paper is glued; the whole is then heated, and while hot is bent into the semi-cylindrical form denoted in Fig. 1, the glue yielding to the bending process, and retaining the parts in that position when cold, so that the steaming or dampening process required for the thick board is avoided, and the back thus constructed possesses elasticity at its edges, which a steamed back does not. I will now describe the second part of my invention, the back *A* being of the construction last described. *B* is the cover-board or base, united to the back by the outer and inner coverings *e f*, denoted in solid black, so as to form the hinge at the intersection of the cover and back. Over this a lining-board, *C*, is placed, which extends in over the edge of the back, as denoted in Fig. 3, and onto this the lining *h* of the back is secured, and over this the lining of the cover and the waste-leaf *D* is placed in the usual manner. The board *C* thus projecting as the book is opened throws up the leaves at the extreme inner edge, preventing the leaves bending at that point; hence, at whatever point the book is opened, the page across will be flat, as denoted in Fig. 3.

I claim as my invention—

1. The back for book-binding, constructed from several layers of board, increasing in width so as to be the thickest at the center and diminishing toward the edge, substantially in the manner described.

2. In the process of binding books, I claim the board *C*, to which the back-lining *h* is secured, extending over the cover *B* toward the center to the edge of the leaves, substantially in the manner and for the purpose set forth.

Witnesses:

GEORGE SMITH.

H. T. BLAKE,
W. E. NORTON.