(No Model.)

L. BAILEY.

BOOKBINDING.

No. 490,382. Patented Jan. 24, 1893.

Fig. 1

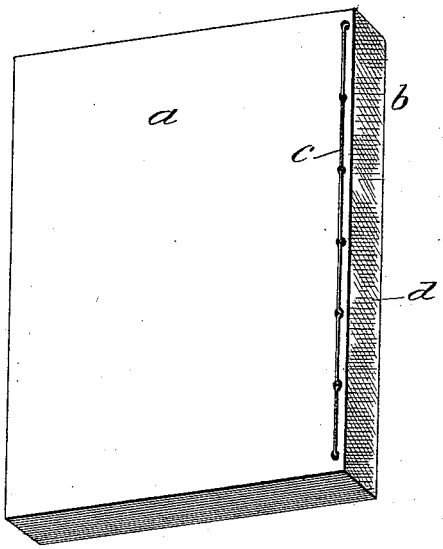


Fig. 2

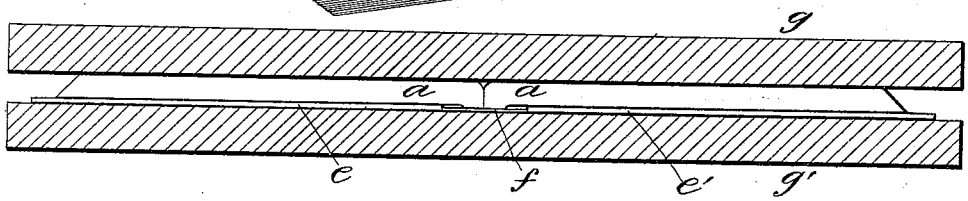


Fig. 3

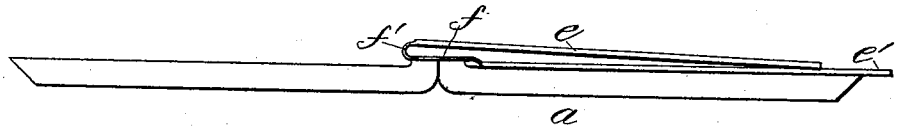
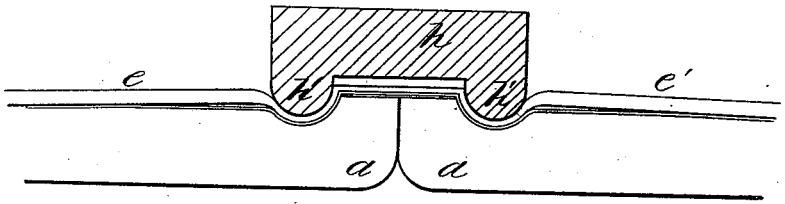


Fig. 4



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UNITED STATES PATENT OFFICE.

LEONARD BAILEY, OF HARTFORD, CONNECTICUT.

BOOKBINDING.

SPECIFICATION forming part of Letters Patent No. 490,382, dated January 24, 1893.

Application filed April 8, 1890. Serial No. 347,112. (No model.)

To all whom it may concern:

Be it known that I, LEONARD BAILEY, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Bookbinding, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide a method and means of binding a book in such manner as to enable it to be subjected to severe treatment in use without destroying the binding.

My invention is particularly adapted for use in copying books the leaves of which are usually made of very thin paper.

My invention consists in the method of binding the book and in the finished product, as more particularly hereinafter described and pointed out in the claims.

Referring to the drawings: Figure 1 is a perspective view of the leaves of a copying book secured together and in readiness to be attached to the cover. Fig. 2 is a detail view through the press boards and in edge view of the book. Fig. 3 is a detail edge view of the book showing the cover bent back. Fig. 4 is a detail view of the final step in the process of securing the leaves to the cover.

In the practice of my invention a convenient number of sheets of paper to form the leaves are placed each on the other in a pile of convenient thickness and one edge is trimmed straight and square as illustrated in the accompanying drawings where *a* denotes the mass of leaves, and *b* the trimmed back edge of the mass. The mass *a* is held in any convenient vise or system of clamps and treated with glue to a degree necessary to cause the leaves to be firmly united near the back edge. The stitching *c* furnishes an additional means of holding the mass together, and along the back a lining strip of flexible material, as cloth or like flexible fabric, is secured as by glue to serve as an intermediate backing strip between the edge of the leaves and the cover. Using the back edge as a guide the front edges and ends of the leaves are trimmed true and to the desired size. The mass of leaves is then opened out as near the center as possible and, after the back edge has been coated with paste or glue, is laid directly on the middle of the covers *e e'* that are united by the usual hinge strip of leather or like strong material *f*. The book is opened out, is laid between the press boards *g g'* and by any convenient means a considerable pressure is brought to bear upon the book held between the press boards. The object is to press the book firmly enough to cause a very thorough union to take place between the ends of the leaves along the back edge of the mass and the hinge strip *f* of the covers. The book is left in the press a sufficient time to enable the back edge of the leaves to be thoroughly glued to the cover. After this it is removed, opened out on a table or flat surface in a reverse position, as illustrated in Fig. 3, one cover turned backward and glue or paste applied along the under side of the hinge at *f'* and the other cover then turned back and glued along the corresponding place that is closely adjacent to the back. After this the die block *h* provided with rounded projections *h'* on its under side is laid upon the book extending along the whole length of the book and under considerable pressure the glued portion of the hinge is forced closely into contact with the lining strip or the outside leaves of the book and held until dried. By the practice of this method a book is produced that may be readily opened out flat and wide at any point, and that may be subjected to repeated pressure, as in the process of copying without destroying the integrity of the binding. The leaves are preferably stitched through and through with a stout thread or wire after the manner of harness work near the back edge that has been trimmed straight and supplied with adhesive material, as glue, and although other means or methods of stitching or fastening may be employed the above is preferred. The lining strip, where one is used, is usually and preferably fastened by the stitching and is afterward secured by adhesive material to the cover of the book as above described in the further process of binding.

I claim as my invention:

1. The within described method or process of book binding that consists in first treating the back edge of a mass of leaves with glue, then securing the mass to the hinge of the covers by glue and pressure while the mass of leaves are opened outward from about the

center, then further securing the hinge to the back of the book by pressure under a die block with rounded bearing surfaces, all substantially as described.

2. The process of book binding that consists in first securing the back edges of the leaves together with adhesive material as glue, then stitching the mass together near the back edge, then securing the back to the hinge of the covers by adhesive material under pressure while the book is opened outward at about the center, then further securing the hinge to the back of the book by pressure and then further securing the lining strip to the cover by adhesive material, all substantially as described.

LEONARD BAILEY.

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