(Model.)

H. S. MILES & F. HAAS.

BINDING FOR BLANK BOOKS.

No. 391,810. Patented Oct. 30, 1888.

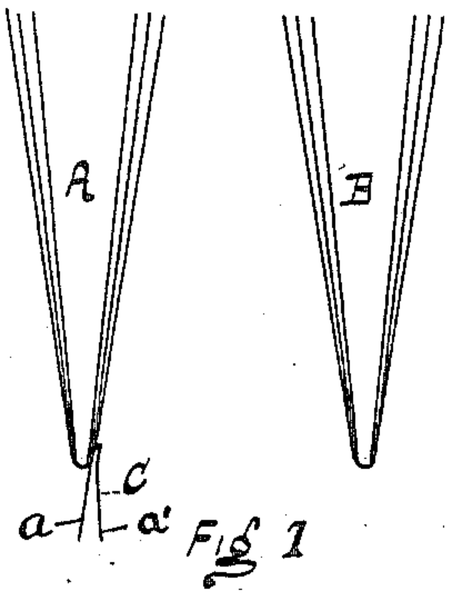

Fig 1

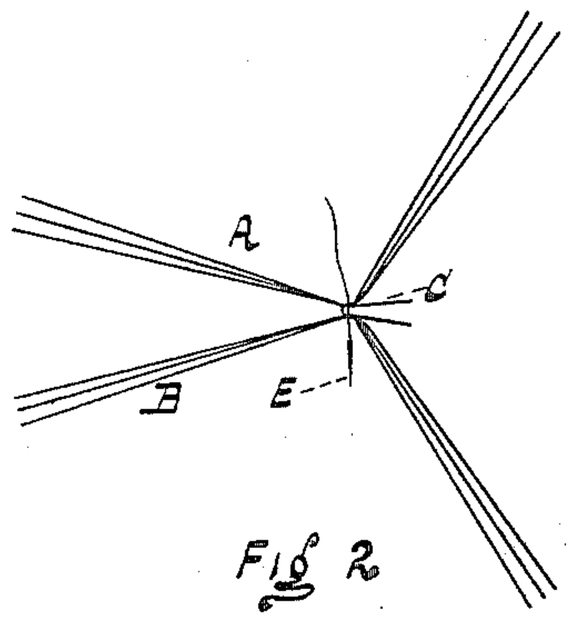

Fig 2

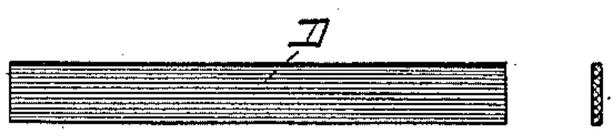

Fig 3

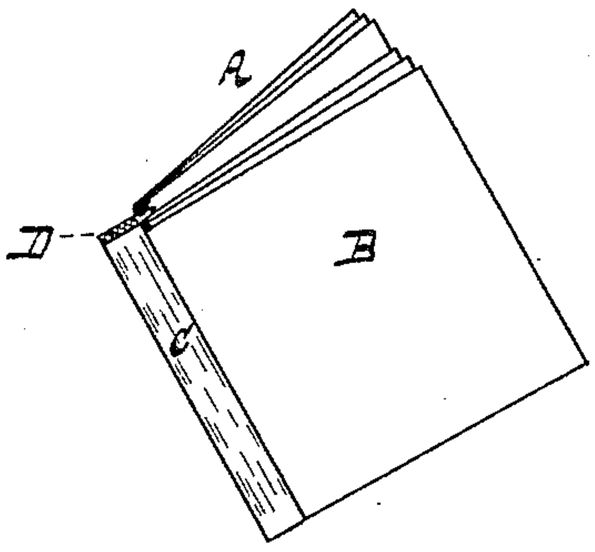

Fig 4

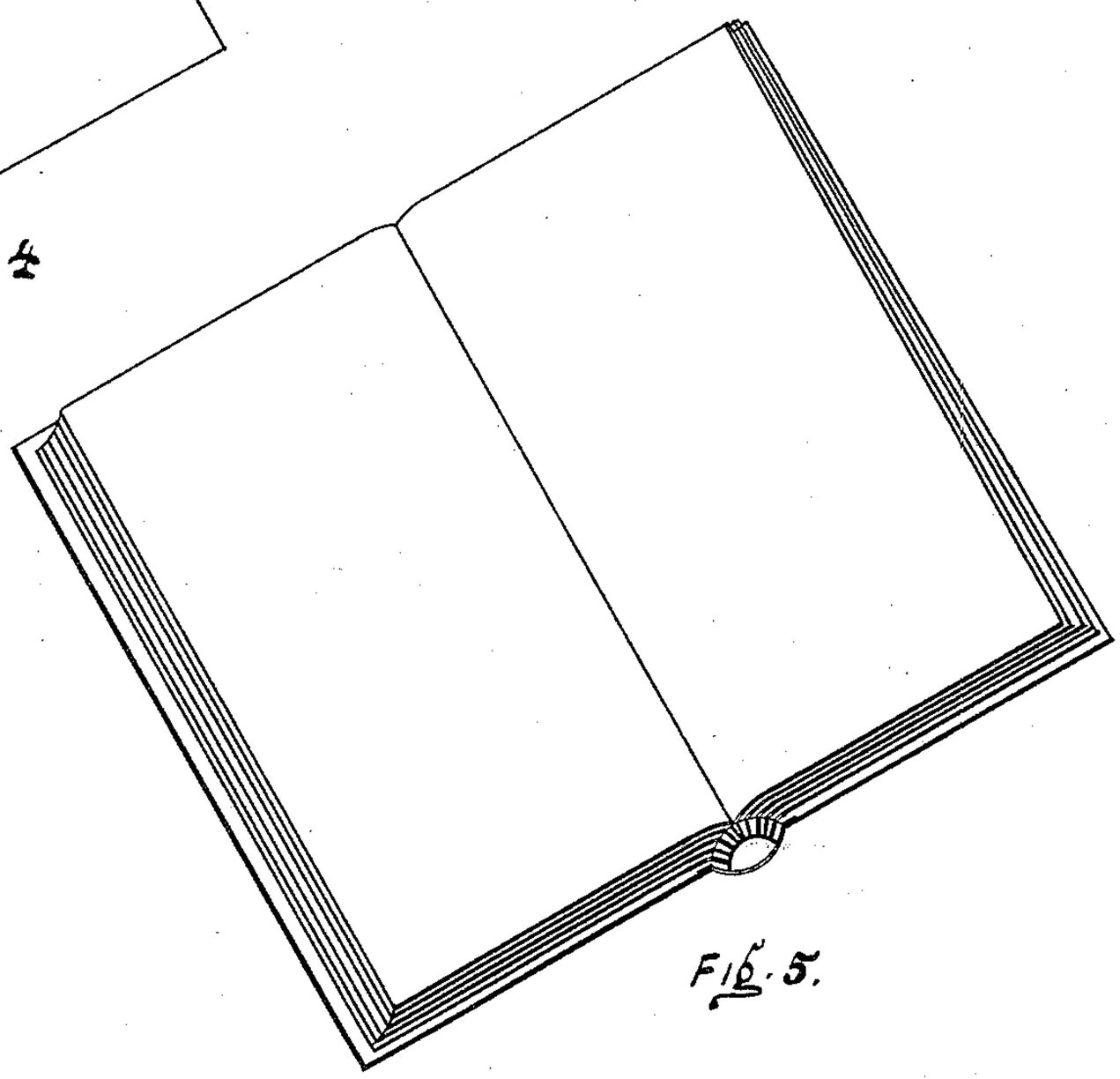

Fig. 5.

WITNESSES:

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BINDING FOR BLANK-BOOKS.

SPECIFICATION forming part of Letters Patent No. 391,810, dated October 30, 1888.

Application filed February 11, 1888. Serial No. 263,683. (Model.)

To all whom it may concern:

Be it known that we, HARRY S. MILES and FREDERICK HAAS, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Bindings for Blank-Books, of which the following is a specification.

Our invention relates to improvements in constructing the leaves of blank-books and other heavy volumes to effect flexibility and strength. We attain these objects in the following manner, reference being made to the accompanying drawings, in which—

Figure 1 is a vertical view of any number of leaves composing two sections of a book. Fig. 2 is a view of the two sections of the book, illustrating the method of joining the same. Fig. 3 is a strip of material or fabric used in binding; Fig. 4, the two sections joined and ready for binding, and Fig. 5 the completed book.

A B represent two sections of leaves of a blank-book or other heavy volume, the back of each of which is folded in the center, as is usual in book-binding. Instead of stitching each section of the book directly to transverse strips in the usual way, commonly known as "whip stitching," we provide every other section alternately with a flexible strip, C. The strip C is composed of muslin or other fabric, or material of any desired width and possessing the necessary strength and flexibility, and is folded evenly and pasted along one side of the inner edge of the section A and projecting from the back of the section, as illustrated. We then take the two sections A and B, joining them in the manner indicated in Fig. 2, so that their folded edges meet with the flexible strip C upon the inside or between the two sections and projecting, as shown. The two sections A and B and the flexible strip C are then united by a row of stitches, the needle E passing through the sections A and B and the flexible strip C on the line of the fold, leaving the strip C project from between the two sections, as shown in Fig. 2. The strip C is made substantially in the form of an inverted U, its stems *a a'* being free and depending in the manner shown in Figs. 1 and 2, while the leaf-sections A B, respectively, are secured to a stem, *a* or *a'*, at or near the point of union *b* of the said stems.

Between the sides of the flexible strip C is pasted the material or fabric, D, Fig. 3, forming a single hinge, the edge of the strip C and the material, D, thus joined extending over, being cut to any desired width, forms a straight edge, as illustrated in Fig. 4. This material or fabric, D, may be made up of alternate layers of woven material—such as duck, with light paper or of layers of any other material to any desired thickness or width, or of common twine of the desired size—possessing the necessary strength. The two sections A and B and the flexible strip C may be stitched together with thread by hand or on the ordinary sewing-machine. The various double sections thus joined are bound by employment of the ordinary methods of binding. We are thus enabled to produce a book of great strength, using a greater number of leaves per section, and having three well-defined openings—two between the folds of the sections and one at the place where the sections are joined—thus giving the book flexibility and causing the leaves to lie flat when open.

We are aware that prior to our invention books have been made each section of which is stitched to a projecting strip to effect flexibility and strength; but we are not aware that the methods herein described by us have ever been heretofore used.

What we claim, and desire to secure by Letters Patent, is—

1. The combination, with two leaf-sections of a book folded substantially like A and B, of a flexible connecting-strip, such as C, of inverted-U shape, having stems *a a'* and a point of union, *b*, at or near which point *b* both leaf-sections are secured to their respective stems *a a'*.

2. The combination, with two leaf-sections, such as A and B, of an inverted-U-shaped flexible connection between said leaf-sections, having stems *a a'* converging at *b*, and a hinge, such as D, between the stems *a a'*.

HARRY S. MILES.
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Witnesses:
ROBT. T. CORSON,
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