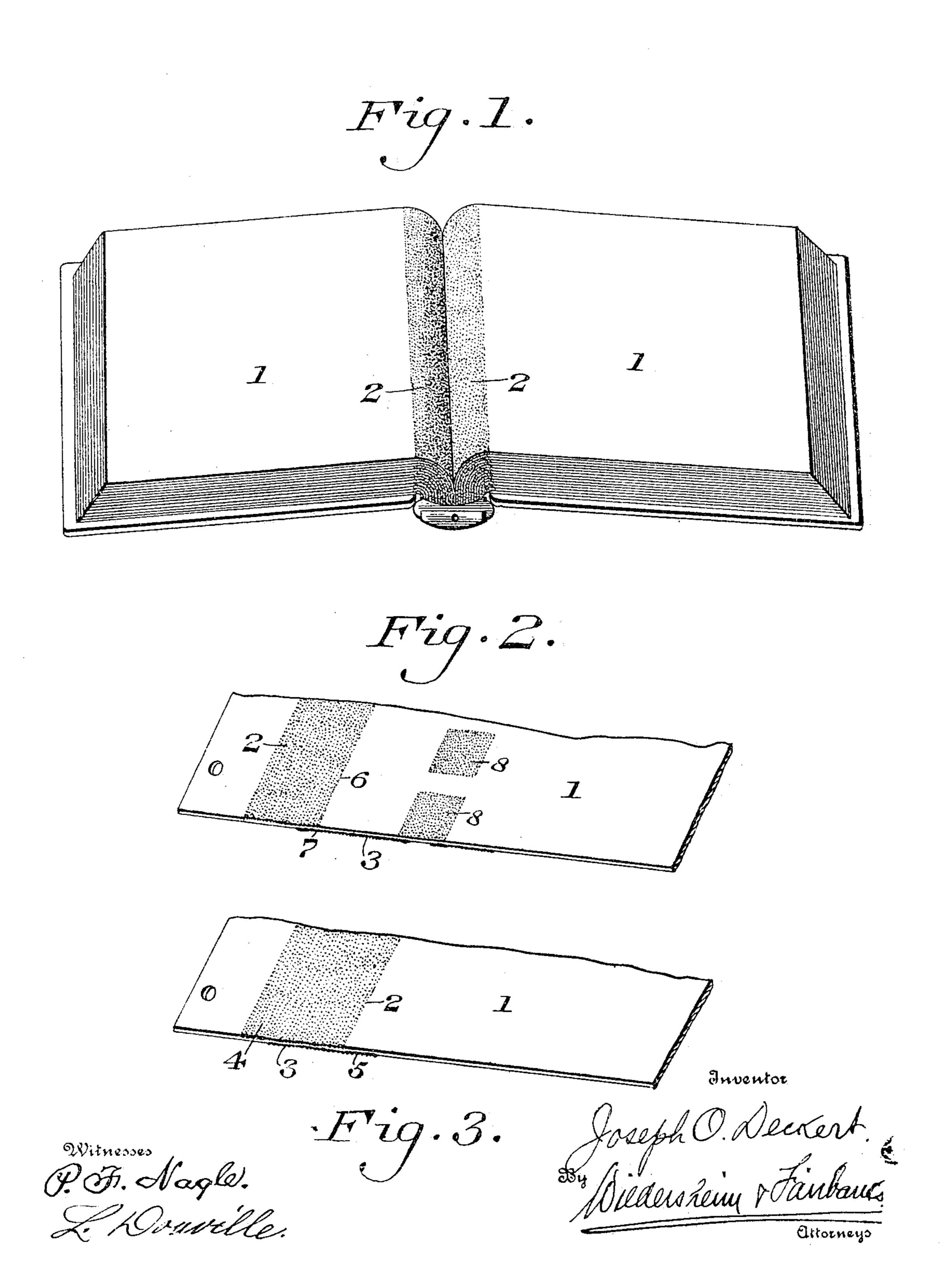
## J. O. DECKERT.

LEAF.

APPLICATION FILED JUNE 8, 1905.



## UNITED STATES PATENT OFFICE.

JOSEPH O. DECKERT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO CHARLES H. MANN, OF HADDONFIELD, NEW JERSEY, AND ONE-THIRD TO HARRY A. PRIZER, OF PHILADELPHIA, PENNSYLVANIA.

## LEAF.

No. 801,653.

Specification of Letters Patent.

Patented Oct. 10, 1905.

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To all whom it may concern:

Be it known that I, Joseph O. Deckert, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Leaf, of which the following is a specification.

The purpose of my invention is to provide

a flat-opening loose-leaf binder.

A further purpose of my invention is to render the leaf more flexible throughout portions of its length by reducing the resistance to bending strain of opposite surfaces thereof, the portions so affected in part overlapping.

A further purpose of my invention is to reduce the surface resistance to bending strain upon opposite sides of a portion of leaf, the two opposite portions registering in part only.

Figure 1 represents a perspective view of a book embodying my invention. Fig. 2 represents a view of a leaf, showing a partial perspective and partial sectional view in slightly different form from that shown in Fig. 3. Fig. 3 represents a partial perspective and partial sectional view of a leaf embodying my invention.

Similar numerals of reference indicate cor-

responding parts in the figures.

Referring to the drawings, 1 designates a leaf having portions 2 and 3 upon opposite surfaces thereof rendered less resistant to bending strain, said portions 2 and 3 registering throughout a portion of their length, each of such surfaces extending in a direction begond the overlapping portion, as at 4 and 5, and the extensions being oppositely directed.

The sheet or leaf may be treated in the manner described at the number of places throughout its length, as shown in Fig. 2, having thus several such portions oppositely treated.

In the use of the word "treated" I intend to cover not only my preferred form, which is by removal, disintegration, or omission of

the sizing at the point in question, but also any roughening, cutting, grooving, or other 45 weakening or modification, either by mechanical or chemical action, which shall produce the desired result, the object desired being the relative location of the treated parts upon the sheet.

It will be evident that any leaf, either intended to be permanently bound or for use in temporary binders, may be treated in the manner herein described and claimed.

It will be evident that the leaf may be treated 55 across the width of the sheet, if desired, or throughout a portion only thereof, as at 8 in

Fig. 2.

It will be further evident that a book containing leaves treated in the manner described 60 and as illustrated in Fig. 1 will have not only a resistance to bending strain reduced sufficiently to make possible flat opening, but also will have the effect of the leaves upon each other so modified that the friction between 65 the leaves will be increased by the motion required to open or close the book and for this reason will more readily set in any position.

Having thus described my invention, what I claim as new, and desire to secure by Letters 7°

Patent, is—

1. In a device of the character described, a leaf the resistance of which to bending strain is less upon certain portions, upon opposite sides, than throughout the remainder of the 75 leaf, the said portions registering in part only.

2. In a device of the character described, a leaf having surfaces upon opposite sides thereof offering less resistance to bending strain than the remainder of the surface of the leaf, 80 said portions registering in part only.

JOSEPH O. DECKERT.

Witnesses:

WM. CANER WIEDERSEIM, C. D. McVay.