

N. S. OTIS.

TEMPORARY FILE AND BINDER.
No. 176.123.

Patented April 11, 1876.

Fig 1.

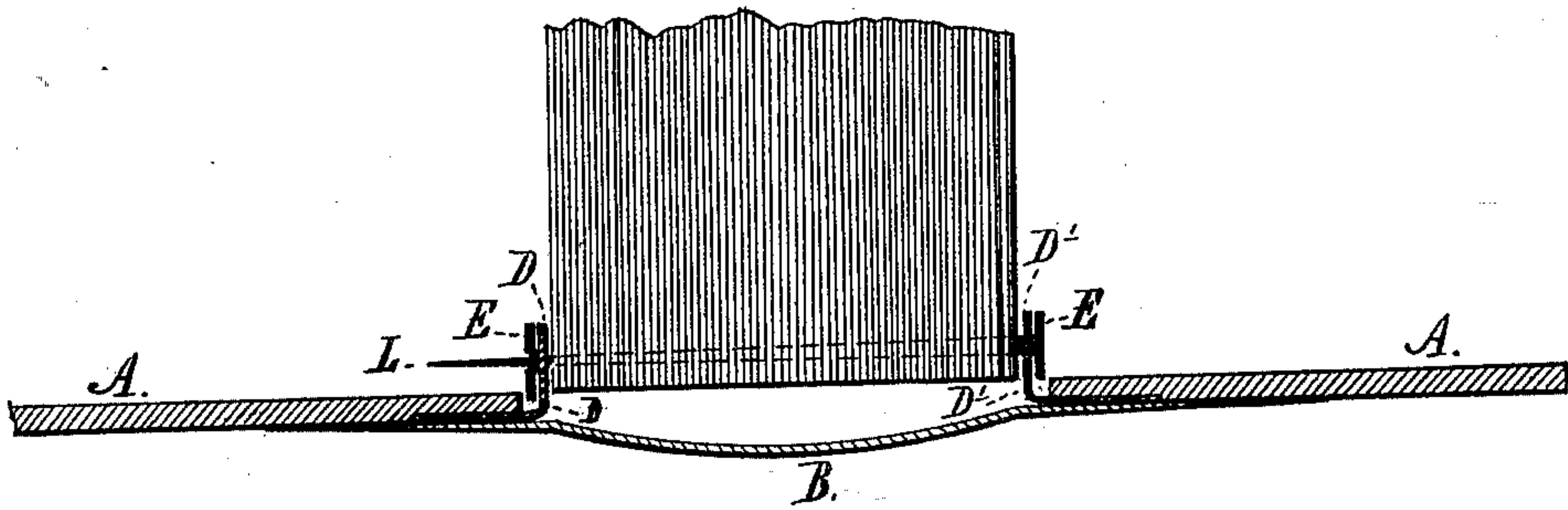


Fig 3.

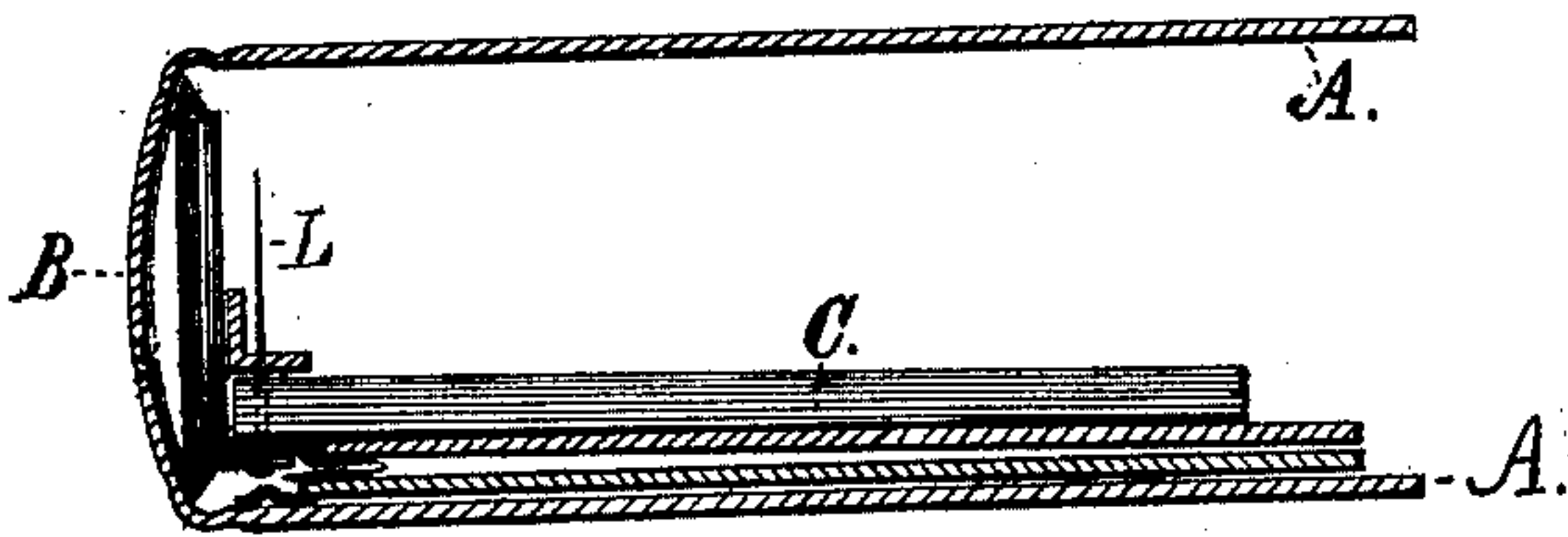


Fig 2.

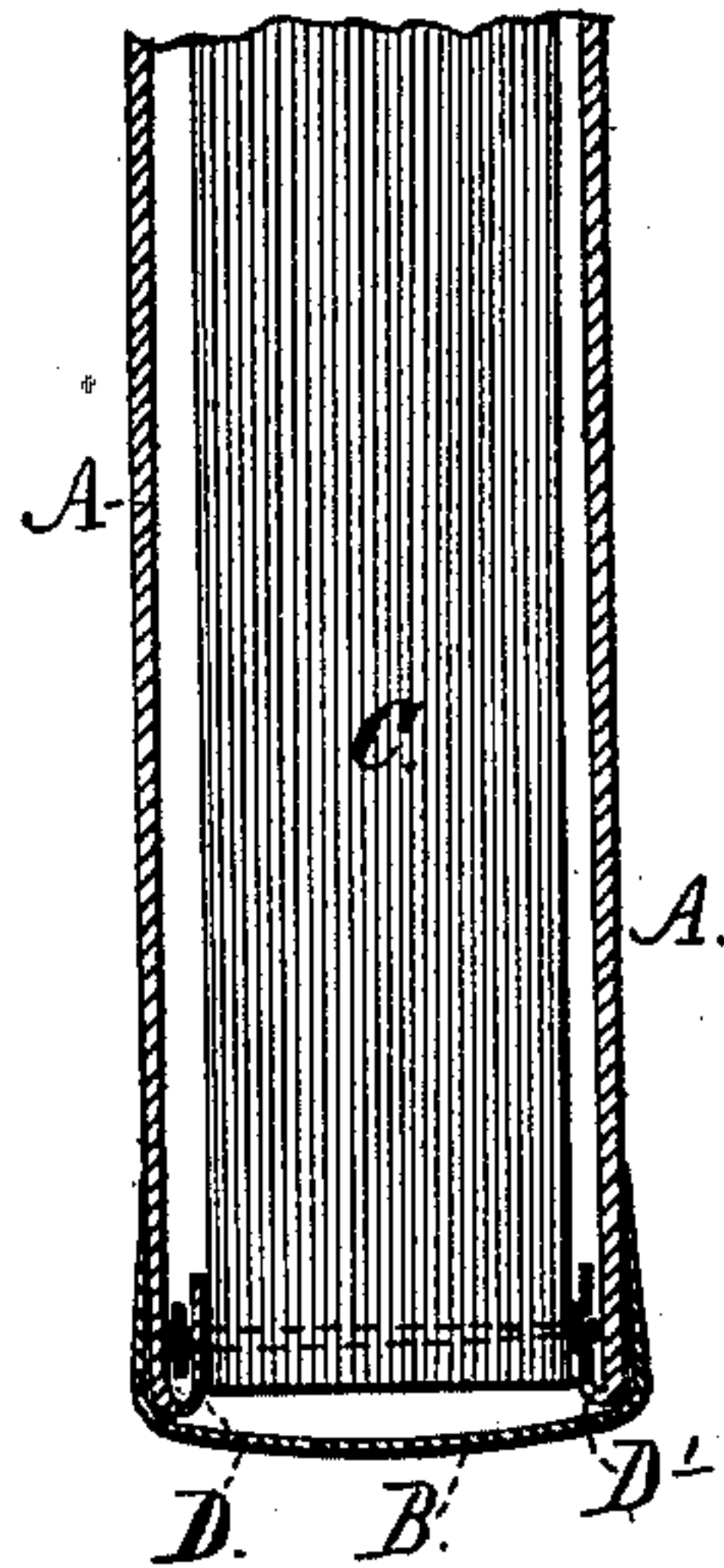


Fig 4.

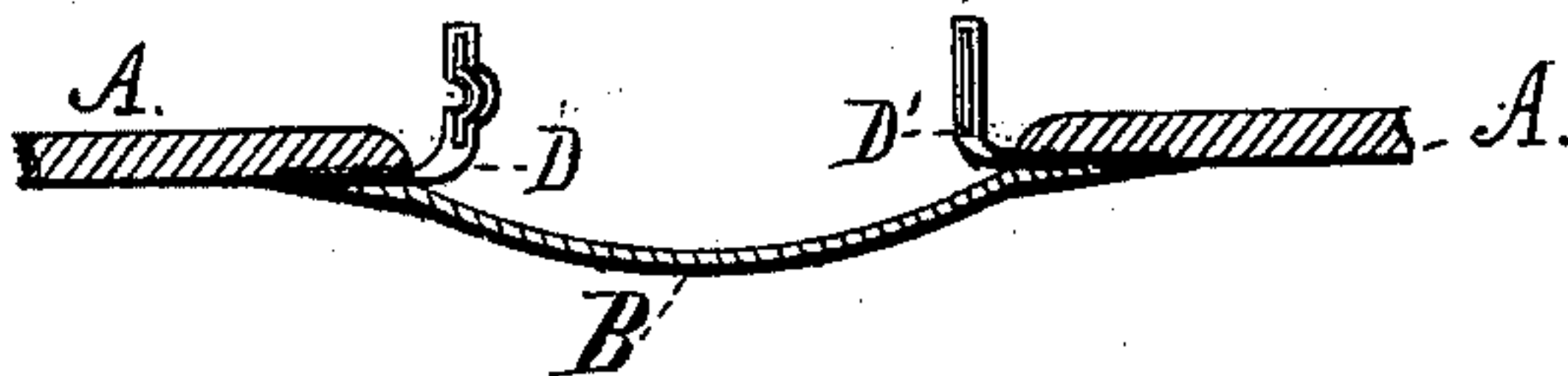
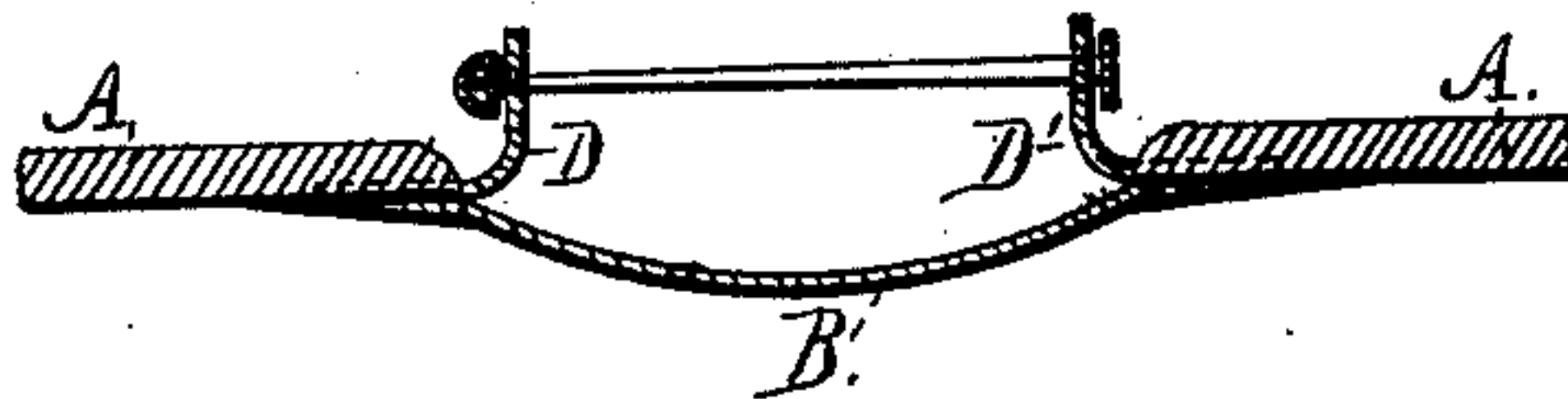


Fig 5.



Witnesses,
L. J. Wilkinson
C. G. Ward,

Inventor,
N. S. Otis.
By A. J. Thompson.
Atty.

UNITED STATES PATENT OFFICE.

NEWTON S. OTIS, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS RIGHT
TO WILLIAM S. GRAY, OF SAME PLACE.

IMPROVEMENT IN TEMPORARY FILES AND BINDERS.

Specification forming part of Letters Patent No. **176,123**, dated April 11, 1876; application filed
September 9, 1875.

To all whom it may concern :

Be it known that I, NEWTON S. OTIS, of the city, county, and State of New York, have invented certain new and useful Improvements in Temporary Files and Binders, of which the following is a specification :

My invention relates to that class of devices designed to file, bind, and preserve, in a permanent and compact form, letters, circulars, sheets of legal and other documents, and all papers of that nature that it is desirable to preserve, either in the order of their reception or otherwise.

The present invention consists in a series of improvements on the old and well-known French file and binder; also, in certain improvements on the file and binder for which Letters Patent No. 168,179, were granted to me September 28, 1875, the construction, application, and operation of which will be herein fully described and pointed out.

In the drawings, which form an essential part of this specification, Figure 1 is a vertical section of a permanent binder in which is fully embodied my invention. Fig. 2 is a vertical section of the same, showing the binder closed in book form. Fig. 3 is a sectional view of a binding or filing machine, showing the method of holding the temporary binder therein during the filing of the papers. Fig. 4 is a view, showing a modification of that shown in Figs. 1 and 2; and Fig. 5 is a view, showing the method of binding when the old method of perforated needles and binding-strips are used.

Similar letters of reference in the various figures of the drawings will indicate corresponding parts.

In the practical use of the old French file and binder, many serious defects have been found in the methods of binding the papers in the permanent binding-covers. The same defects are also found in all of the other forms of files and binders of the same class. These defects have in a great measure been corrected by the adoption of certain devices, for which I have already applied for Letters Patent. In all cases, the permanent metal binding-strips and their attendant needles have invariably been fastened on the exterior of the

permanent binding-covers. This form has proven very objectionable—it is clumsy in appearance, permits the books to catch in the cases, scratches the covers of adjacent books, destroying them in time. Other objections exist, which are plainly apparent without being mentioned in detail.

My present improvement obviates all such difficulties, and I am enabled to place the binding-strips inside of the permanent binding-covers, thus leaving their exteriors free from any projections of any nature, and giving the permanently-bound papers the neat appearance that a first-class bound book possesses. This improved method of binding may be applied to all the various forms of permanent binders, using their various forms of binding devices for full books; but making the attachments or binding-strips a part of the interior of the covers, instead of applying them on the exterior, as is now the case. But the invention is particularly adapted to the novel mode of binding, as described and shown in Letters Patent No. 168,179, and by means of which I am enabled to permanently bind papers at any point of time during the temporary filing, and without regard to the quantity of papers in the file.

The binding or filing machine method of attaching the permanent binding-covers therein, the process of filing papers and removal from the binding-machine, are shown in Fig. 3 of the drawings, and are substantially the same as shown and described in the patent therein, previously referred to. As stated therein, and in the present case, I make use of the sharp-pointed binding-needles, attached to a metal binding-strip, and a detached channeled binding-bar, bending the projecting points of the needles down into such channel when the process of binding is completed.

In the drawings, A represents the covers of the permanent binder. B is the flexible leather or cloth back of the same, of the usual construction and application. C represents the papers when bound into the covers. D and D' are two leather or cloth bands or strips, bound into the covers at the point of their connection with the flexible back B. These leather or cloth strips project upwardly a suit-

able height sufficient to cover the width of the metal binding-strips, as shown in Figs. 1 and 2. E is the binding-strip, to which the binding-needles are attached, and is placed on the outside of the leather or cloth strip D', the needles passing through the same, thence through the papers to be bound, and through the leather or cloth strip D on the opposite side. The channeled binding-bar F is then applied on the outside of the leather or cloth strip D, the needles passing through the openings provided therefor, and are then bent down into the channel in the binding-bar, completing the process of binding.

This done the covers may be closed, and the book will present the appearance as shown plainly in Fig. 2, all of the binding attachments and apparatus being on the inside of the covers and concealed from the sight. The use of the perforated needles and binding-strip as applied in the French file and binder, or the needles with slotted heads, in the case of the Bennett file and binder, as patented September 15, 1874, is permitted, in connection with the projecting leather or cloth binding-strips D and D', as shown in Fig. 5.

In the use of the channeled binding-strip, it may be bound into the interior of the leather or cloth strip D, as seen in Fig. 4, and, generally speaking, this method is preferred, as each set of extra permanent covers is complete in itself, and as it obviates the necessity of having loose binding strips, which are liable to be lost. The binding leather or cloth strip D' may also be stiffened by means of a thin strip of sheet metal bound therein, if so desired.

My improved method of binding may be applied to the binding of magazines, newspapers, periodicals, or other books of that nature. Single sheets of paper, like way or freight bills, used in railroad and steamboat offices, may also be filed and bound without

going through the usual binding-machine. In this case the binding-strip E, armed with the needles, would be bound in, or fastened to, one of the projecting wings, or rigidly attached to one cover, so as to maintain the needles in an upright position. The papers, which would be perforated at one edge so as to coincide with the needles, are then slipped over the pointed needles, filed and bound up by bringing the opposite wing, provided with channeled or other binding-strip over the needles, and the binding completed, as hereinbefore described.

I make no claim to the binding-wings D and D', when used in combination with the rigid binding-tubes and caps or eyelets, knobs, nuts, or washers, secured on each of their ends, as shown in Letters Patent No. 169,136, issued to W. H. Bennett, October 26, 1875, and described and shown also in his application for a patent filed September 9, 1875.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent in the United States, is—

In a letter file or binder, the strips or wings D and D', projecting from the base and inside of the covers A, and operating as a binding device, in combination with a bar or bars, armed with a series of needles or wires tapering to a point, or provided with eyes or slotted near their points, and an auxiliary binding strip or bar, either channeled, flat, or tubular, arranged and operating substantially as and for the purposes as herein shown and set forth.

In testimony whereof I have hereunto set my hand in the presence of the subscribing witnesses.

NEWTON S. OTIS.

Witnesses:

A. L. MUNSON,
LEWIS WILKINSON.