

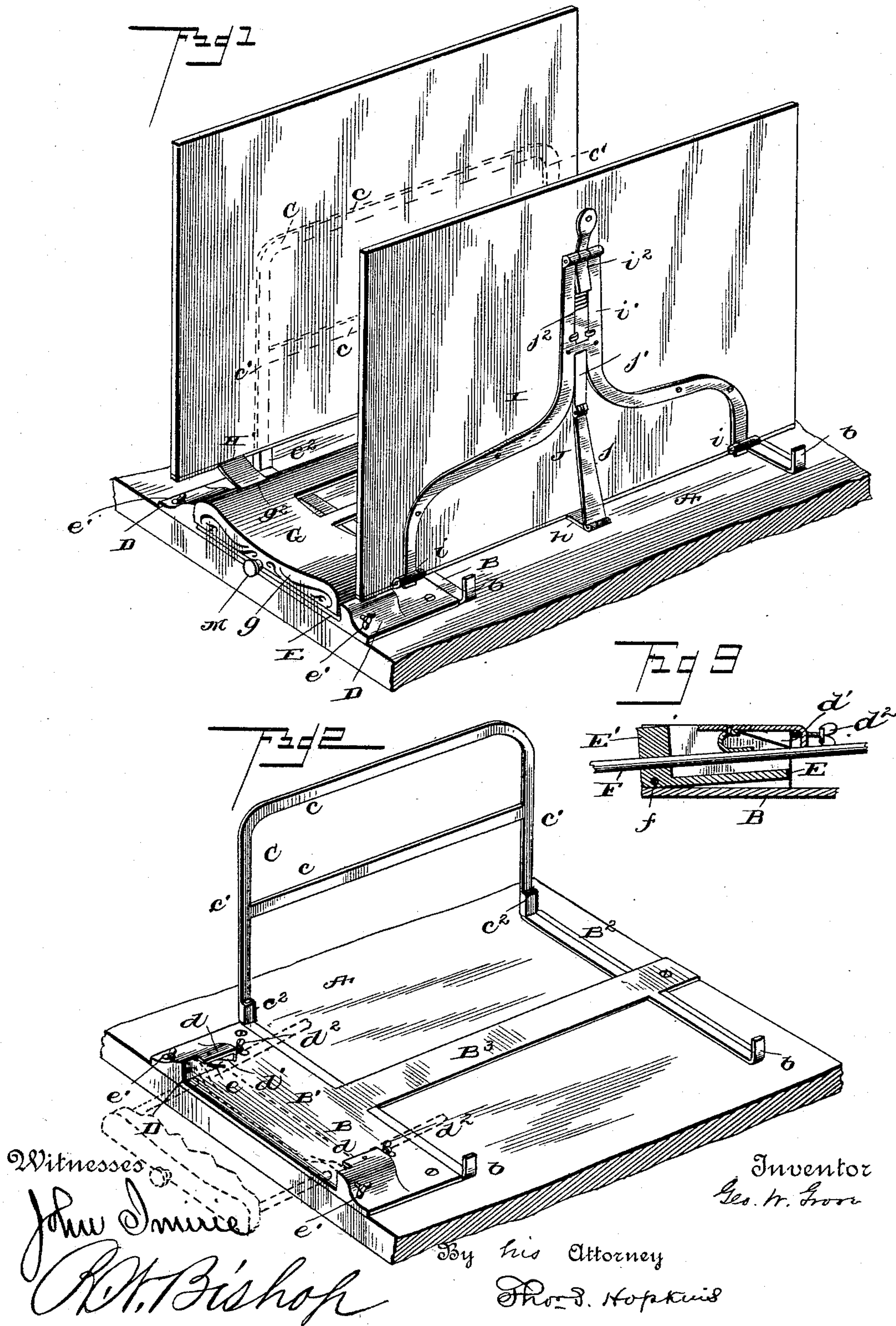
(No Model.)

2 Sheets—Sheet 1.

G. W. GROVE.
BOOK HOLDER.

No. 483,611.

Patented Oct. 4, 1892.



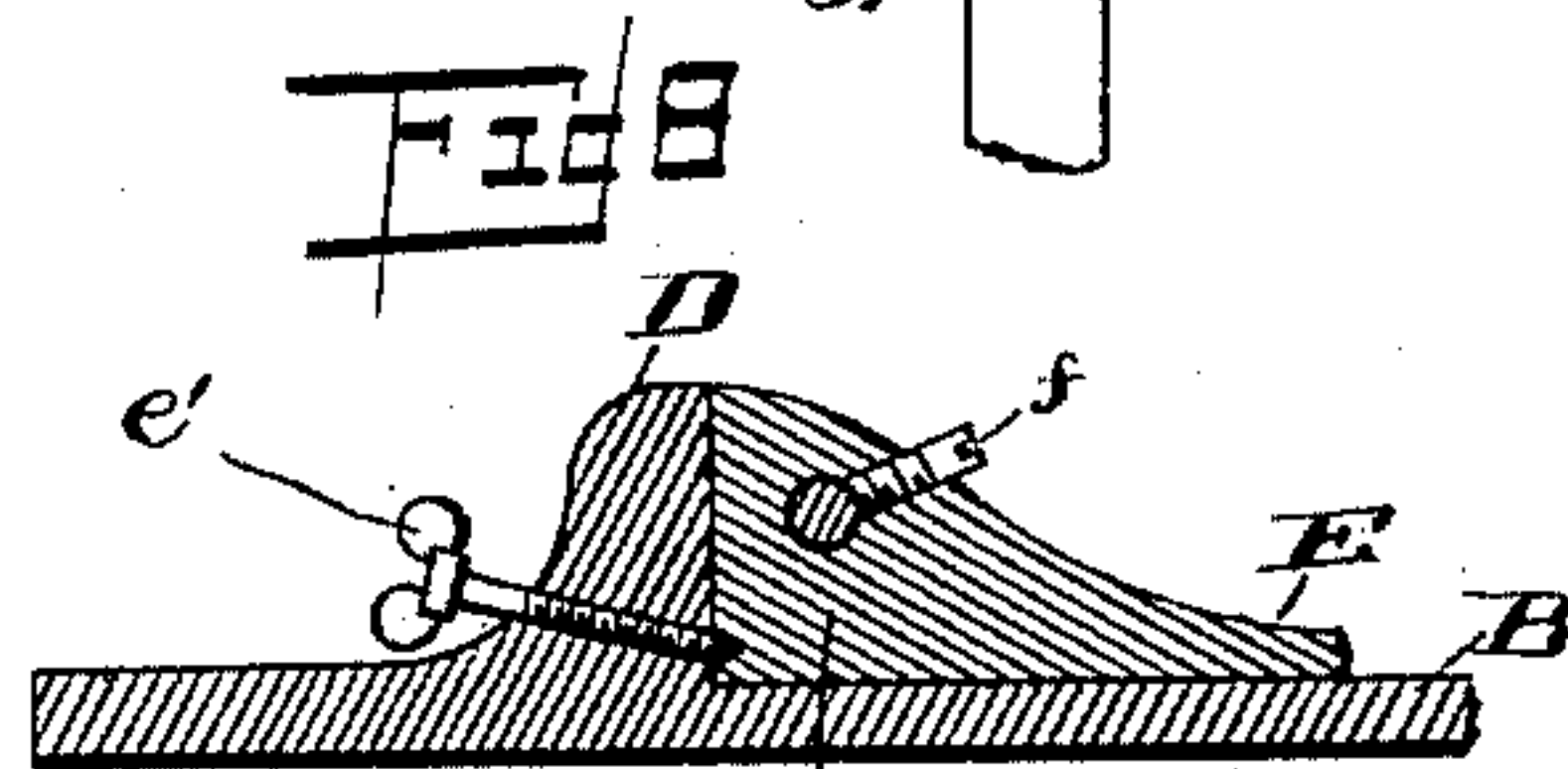
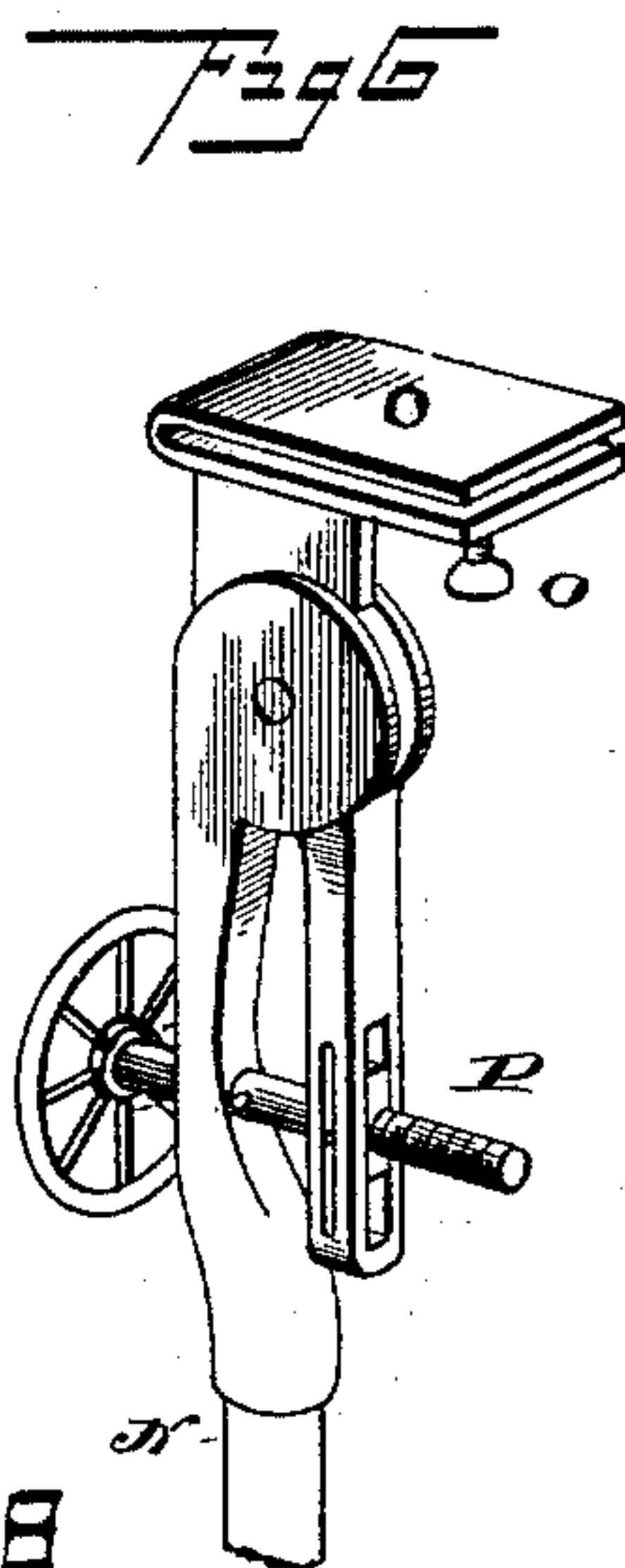
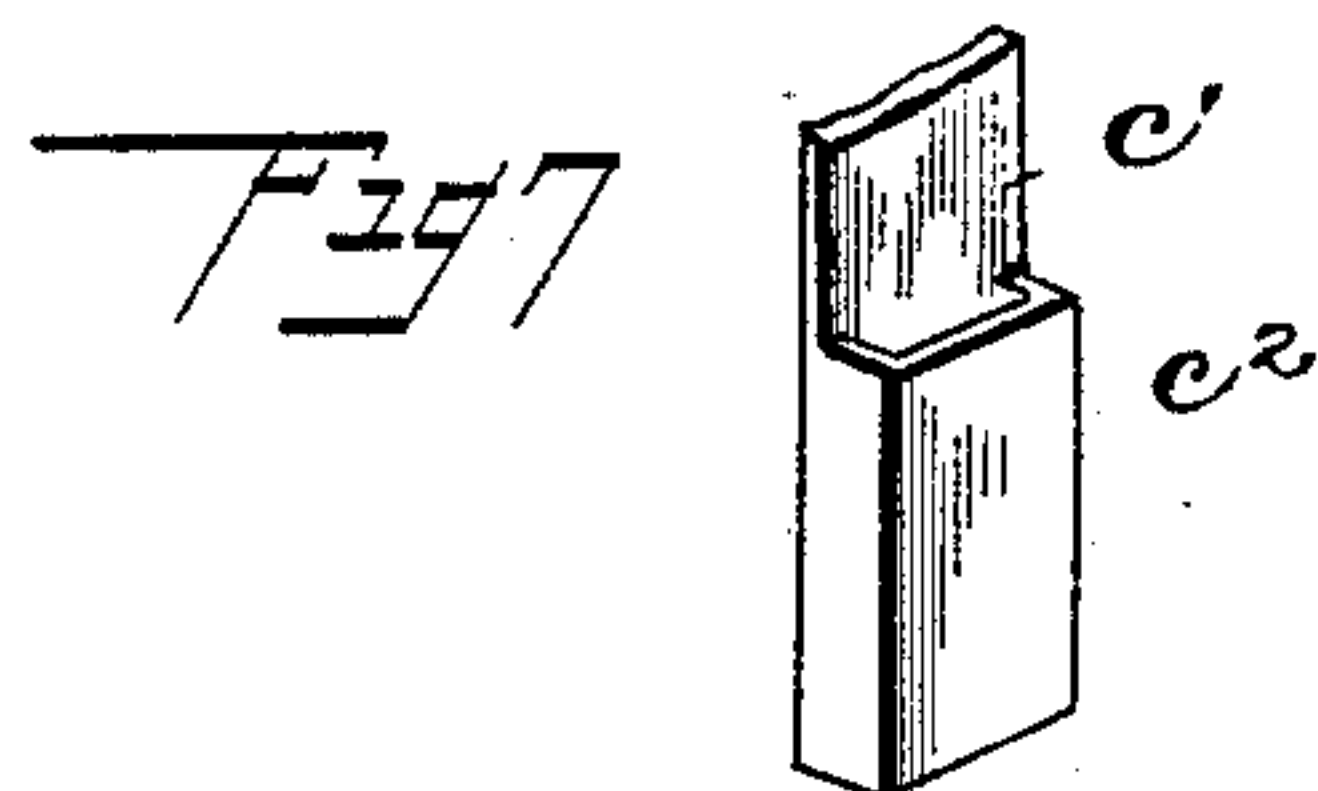
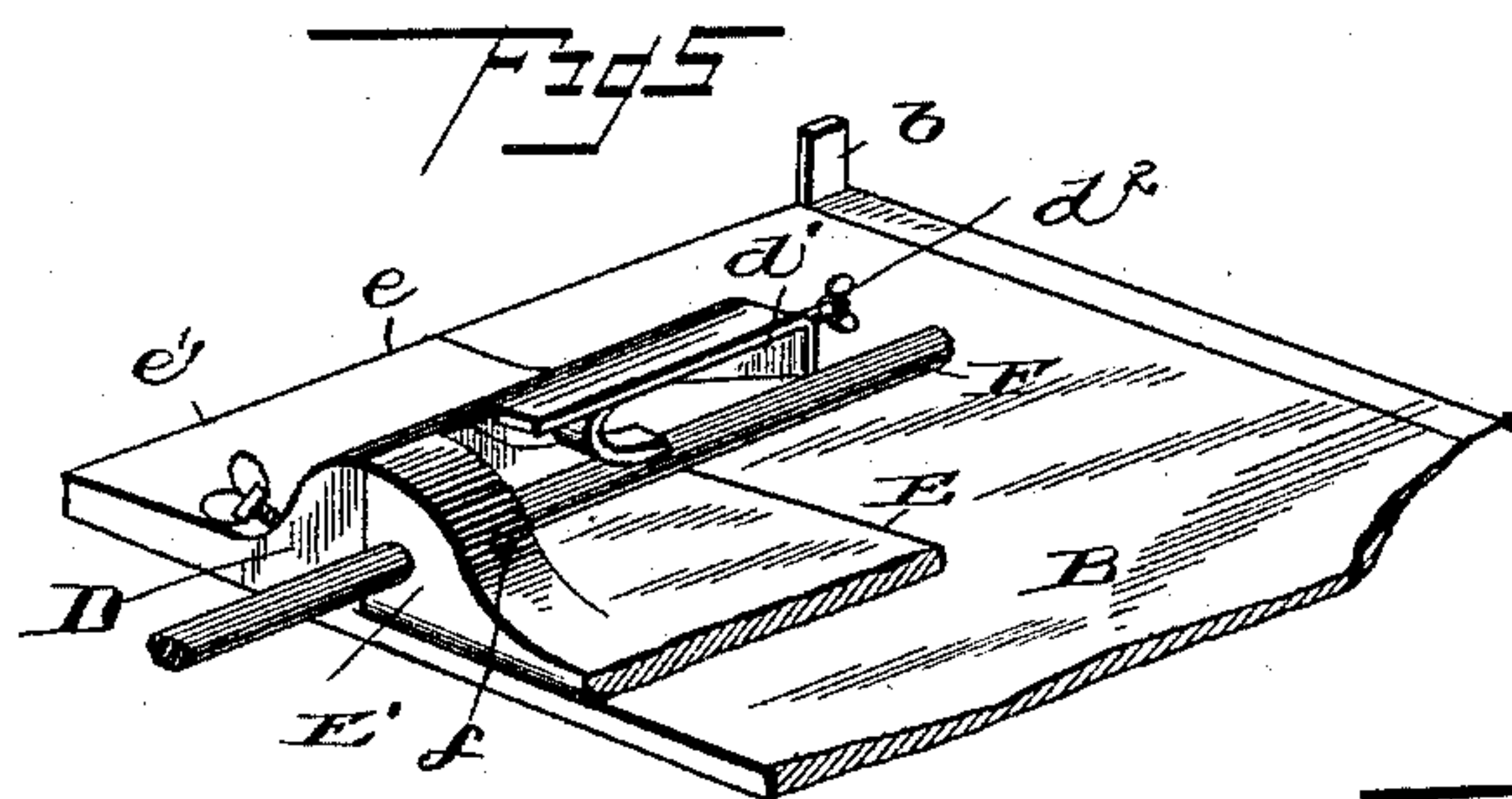
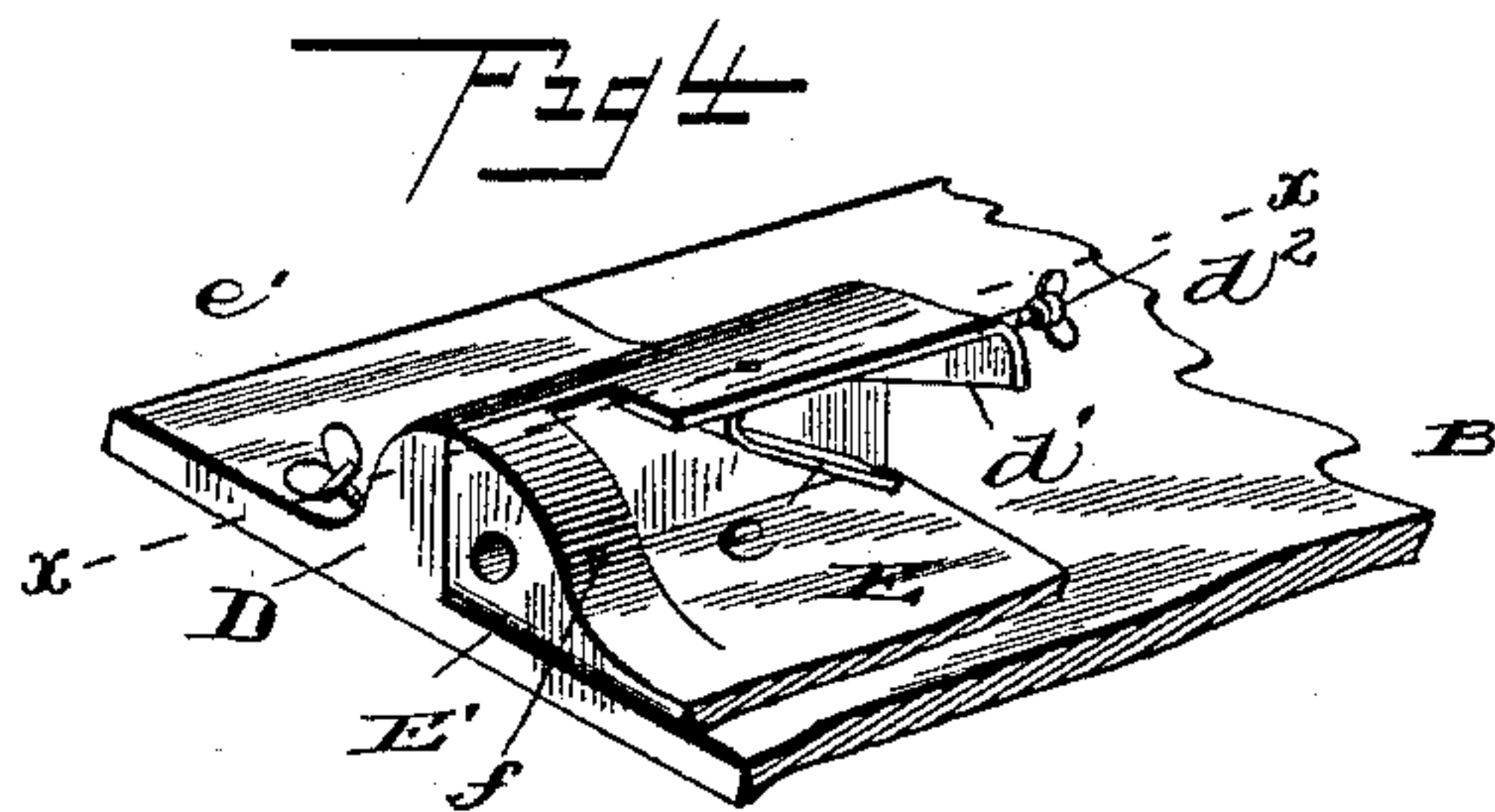
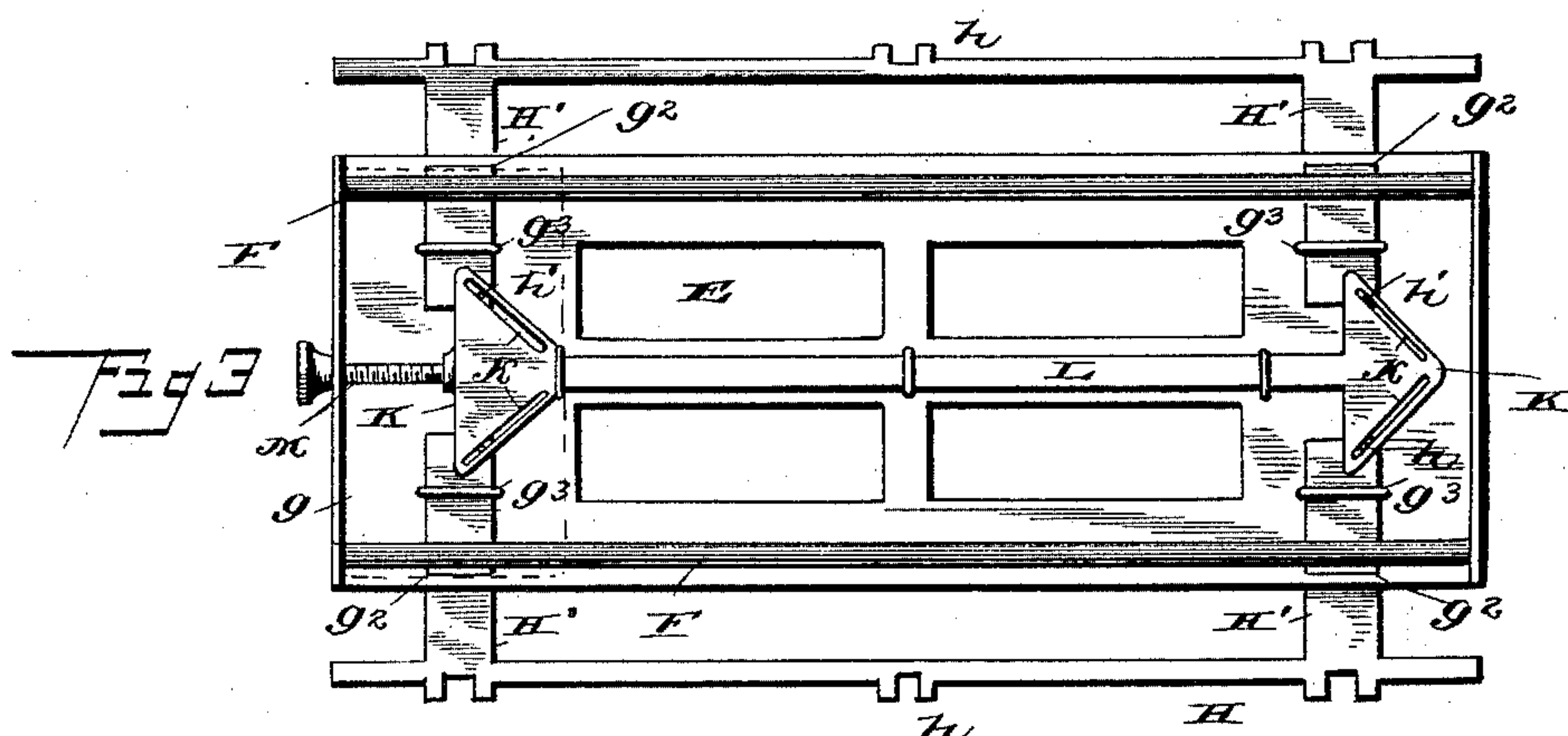
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2 Sheets—Sheet 2.

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Witnesses

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By his Attorney
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Inventor
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UNITED STATES PATENT OFFICE.

GEORGE W. GROVE, OF WASHINGTON, DISTRICT OF COLUMBIA.

BOOK-HOLDER.

SPECIFICATION forming part of Letters Patent No. 483,611, dated October 4, 1892.

Application filed March 10, 1890. Serial No. 343,431. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. GROVE, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Book-Holders or Holders for Heavy Books or Papers of Any Kind; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to book-holders or holders for heavy books or papers, and is designed, primarily, for attachment to any book shelf or table, allowing the book to be drawn out, examined, and pushed back without lifting or removing it from its holder.

My object is, secondly, to have the body of the holder easily detachable from a shelf or table and when so detached capable of being rigidly secured by means of an adjustable joint to a single metal upright rod supported on three or more legs, thus being easily moved from room to room, as required, the adjustable joint holding the book and holder at any inclination.

My invention consists in certain constructions, combinations, and arrangements of parts hereinafter described and specifically claimed.

In the accompanying drawings like letters indicate like parts.

Figure 1 is an isometric view showing the holder attached to and pushed in upon the shelf. Fig. 2 is a similar view of the shelf, shelf-plate, and book-guard with book-holder removed. Fig. 3 is a bottom plan view of the book-holder. Fig. 4 is a perspective view of one end of the rocking plate, showing the means for adjusting the inclination. Fig. 5 is a similar view showing a portion of one of the rods on the holder. Fig. 6 is a perspective of the adjustable joint on the upright rod for supporting the book-holder. Fig. 7 is a perspective view of the foot of the book-guard. Fig. 8 is a detail sectional view showing the manner of pivoting the rocking plate. Fig. 9 is a detail sectional view taken on line $x x$ of Fig. 4.

In the drawings, A represents a shelf of a book-case or a similar support upon which the book is to be placed. Secured to this

shelf is a plate B, preferably of metal and shown in the present instance as consisting of an enlarged cross piece or head B' and a smaller cross-head B², which are connected by a central strip B³, the whole being secured to the shelf, table, or other device upon which the book is to be supported. This plate is provided with a number of upright projections b, extending upward and serving as a means of attaching a book-guard C, which in the present instance is shown as a skeleton frame consisting of two cross-bars c c and two uprights c' c', connecting the cross-bars and provided at their lower ends with socket-pieces c², as more clearly shown by Fig. 6, which are adapted to fit the upright projections b of the frame B and support the guard or guards C, the purpose of which is to prevent the adjacent books which may be arranged on the shelf or table from interfering with the operation of the book-holder. Also connected to the shelf-plate B are two lugs or projections D, to which is pivoted a rocking plate E by means of the thumb-screws e'. This plate E can be tilted or rocked on its pivots, so that the book-holder may be held at an inclination to the shelf or table, and I provide means whereby the amount of tilting or rocking can be regulated. In the present instance I have shown the lugs or projections D as provided with flanges or extensions d, overhanging the inner edge of the rocking plate, and to these flanges I attach springs e, the free ends of which bear upon the rocking plate E and permit it to be tilted against the pressure of the springs. Also connected to the overhanging flanges d is a wedge d' or incline, which serves as a stop to limit the movement of the rocking plate, and this wedge may be adjusted by a screw d² toward or from the springs e, and thereby the movement of the rocking plate can be controlled by its inner edge impinging or bearing against the surface of the inclined d'. Connected to the rocking plate are the lugs E', having perforations through them and serving as bearings for the sliding rods F in a manner hereinafter explained.

The book-holder proper consists, essentially, of a base-plate G or frame, to the under side of which the rods F are secured, the rods being connected to the base-plate by being secured to the downturned end g of the base-

plate G. Connected to this base-plate are the side bars H, supporting the sides I of the book-holder. These sides are pivotally connected to the side bars, as by hinges *i*, and in order to maintain them in their upright or vertical position and allow them to be swung or opened to support the book in its opened condition I provide supports or locking-bars J. These locking-bars consist of two portions, one *j* of which is pivotally connected to the side bars by a lug *h*, extending laterally therefrom. The other portion *j'* consists of a plate or rod hinged to the lower portion *j* and sliding between the extensions *i'* of the hinges *i*, and this portion is provided with one or more notches, with which engages a stop device, as *i''*, pivotally connected to the extensions *i'*. With this construction it will be seen that the sides I can be supported in an upright position, as shown in Fig. 1, by the side-supports J, and, when desired, by releasing the stop or catch *i''* the portion *j'* of the side-support will slide between the extensions *i'* and allow the sides to be inclined at the desired angle to permit ready reference to the book, and the sides can be locked in this position by the stop engaging one of the notches *j''*.

In order that the book-holder may be adjusted to hold books of various thicknesses, I adjustably connect the side bars H and the sides carried thereby to the base-plate G, and I have shown the side bars provided with arms or extensions H', passing through slots *g''* in the rolled-under edge of the base-plate and through straps *g''*, secured to the under side of base-plate G. In Fig. 3 these side bars are shown as extended nearly to their outermost position, and in order to adjust these side bars I have shown the arms H' as provided with pins or studs *h'*, preferably arranged near their upper and inner corners, and arranged to engage these pins or studs are the fan-shaped plates K, having inclined slots *k*. These plates K are connected by a bar or rod L, sliding in straps connected to the under side of the base-plate G, and a screw M, the head of which passes through the downturned end *g* of the base-plate G and serves to adjust the movement of the plates K and their connecting-bar. It will thus be seen that when the plates K are moved to the left (referring to Fig. 3) the pins or studs *h'* on the arms H' will be caused to approach each other by the inclined slots *k* in the plates K, and when the plates are moved to the right the arms are forced outward, and the side bars are therefore adjusted to fit the book it is desired to support.

As before stated, the rods F, which are secured to the base-plate G, pass through the lugs E' on the rocking plate E, which is pivoted to the shelf-plate secured to the shelf, and it is apparent that by this means the support can be pushed in or moved outward upon the shelf to any desired distance, and when it is moved outward the support and its contents can be tilted to a convenient position for reference to the book, the degree of tilting being regulated by the inclined blocks *d'*, controlling the rocking plate E.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the side bars, the sides hinged thereto by hinges having upward extensions *i'*, the side-supports consisting of lower portions pivoted to the side bars and upper portions pivoted to the lower portions and sliding between the extensions *i'*, and dogs mounted on the sides and engaging the said upper portions.

2. The combination of the shelf and the shelf-plate secured thereto, the rocking plate pivotally mounted on the shelf-plate, and the book-holder having side bars mounted in said rocking plate and adapted to slide longitudinally therein.

3. The combination of the shelf-plate, the rocking plate mounted thereon, and the sliding wedges mounted on the shelf-plate above the rocking plate and adapted to limit the play of the same.

4. The combination of the shelf-plate, the rocking plate mounted thereon, the sliding holder carried by the said rocking plate, and laterally-adjustable sides mounted on the holder.

5. The combination of the shelf-plate, the rocking plate pivotally mounted thereon, the springs secured to the shelf-plate and bearing down on the rocking plate, and adjustable stops on the shelf-plate, limiting the movement of the rocking plate.

6. The combination of the shelf-plate, the rocking plate, set-screws mounted in the shelf-plate and serving as pivots for the rocking plate, and the sliding book-holder carried by the rocking plate.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GEORGE W. GROVE.

Witnesses:

WM. J. PALMER,
F. L. ATTWELL.