

Patented June 18, 1889.

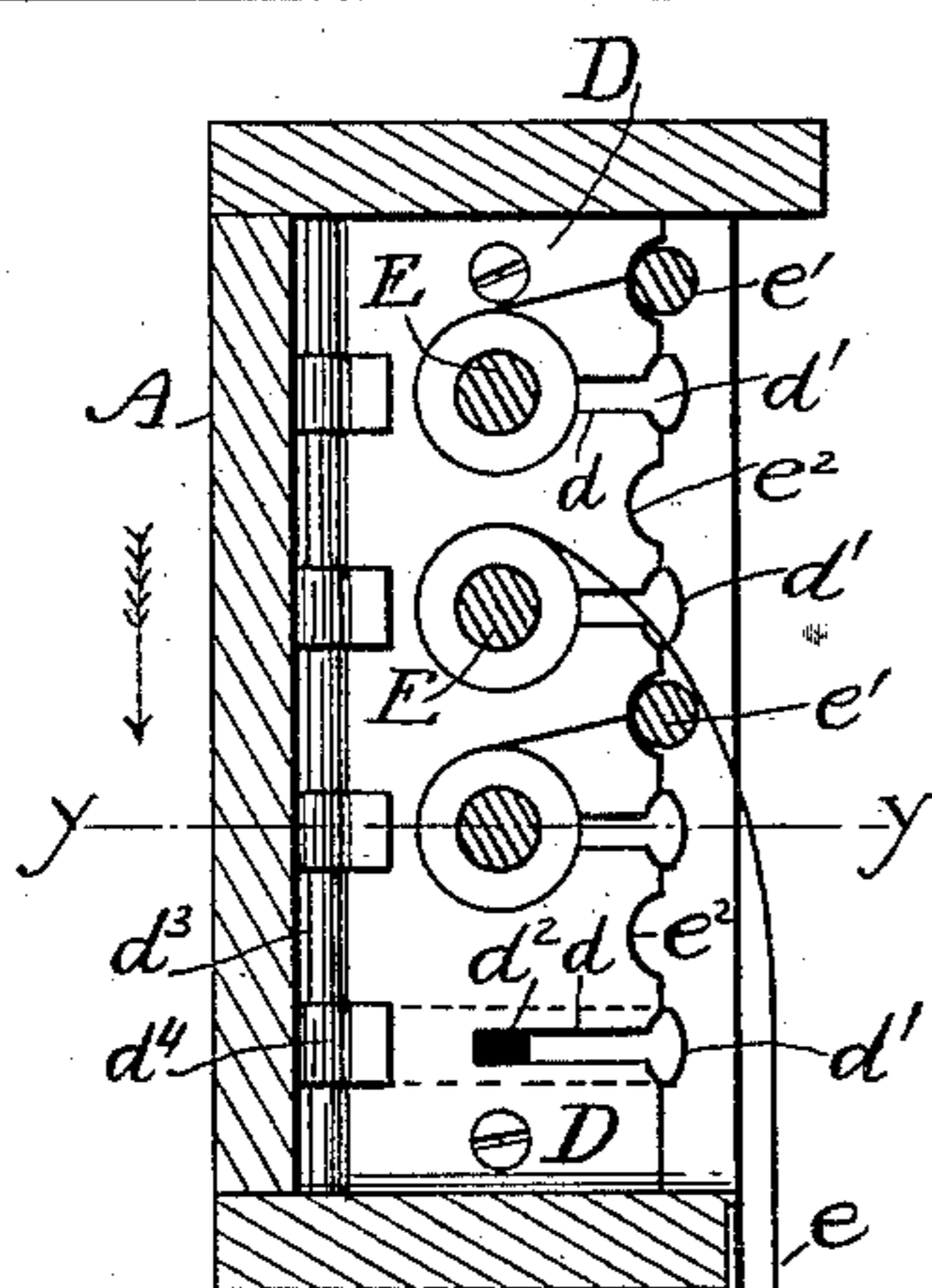
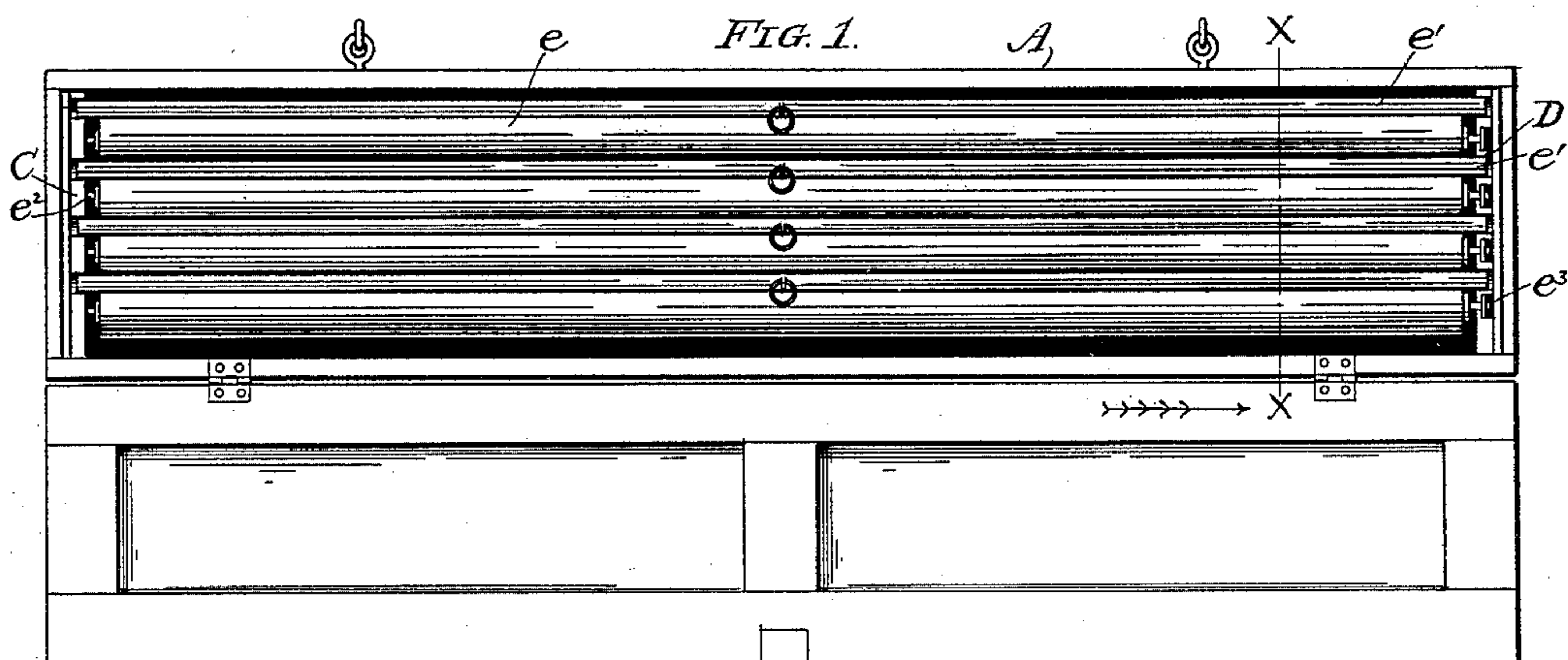


FIG. 2.

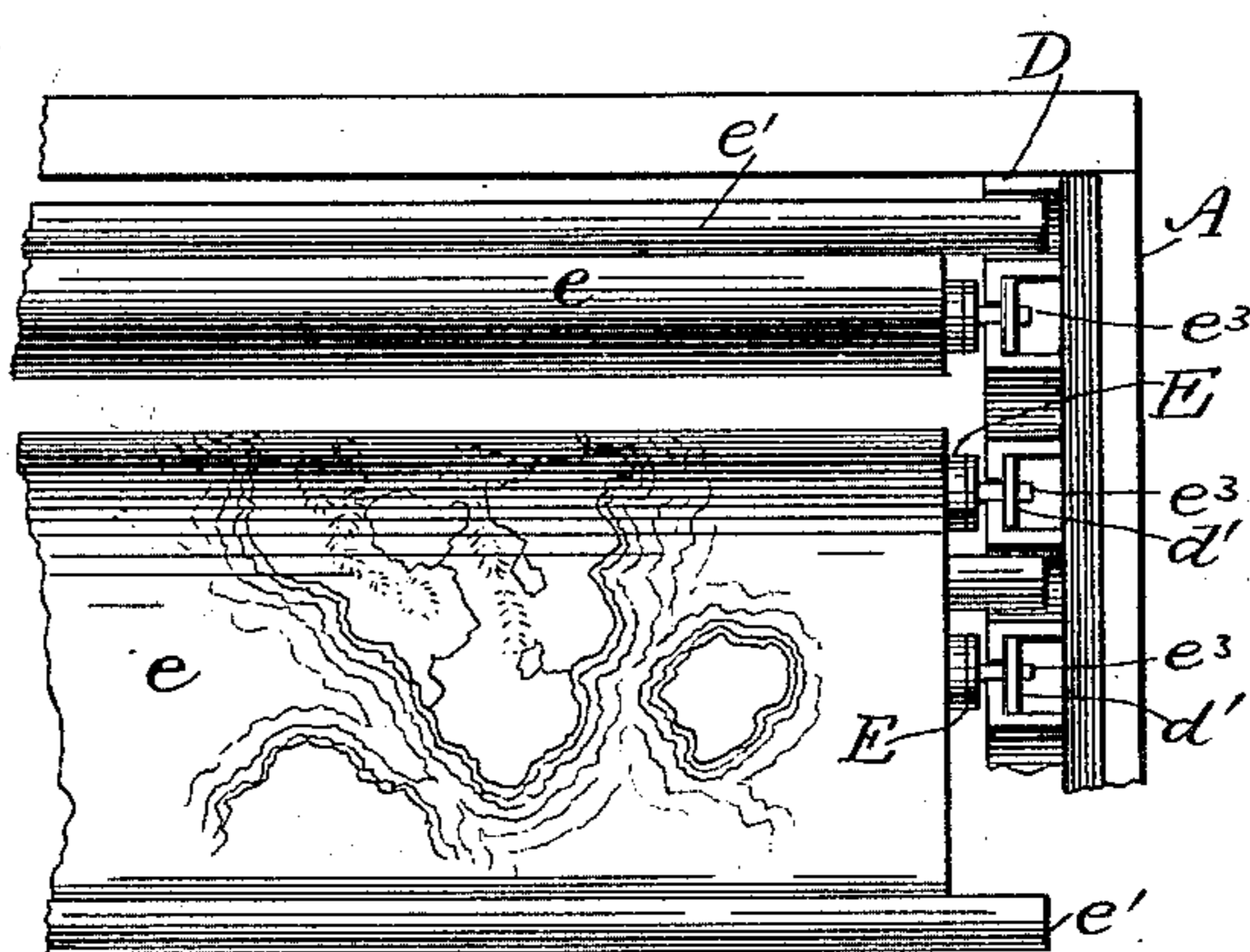


FIG. 3.

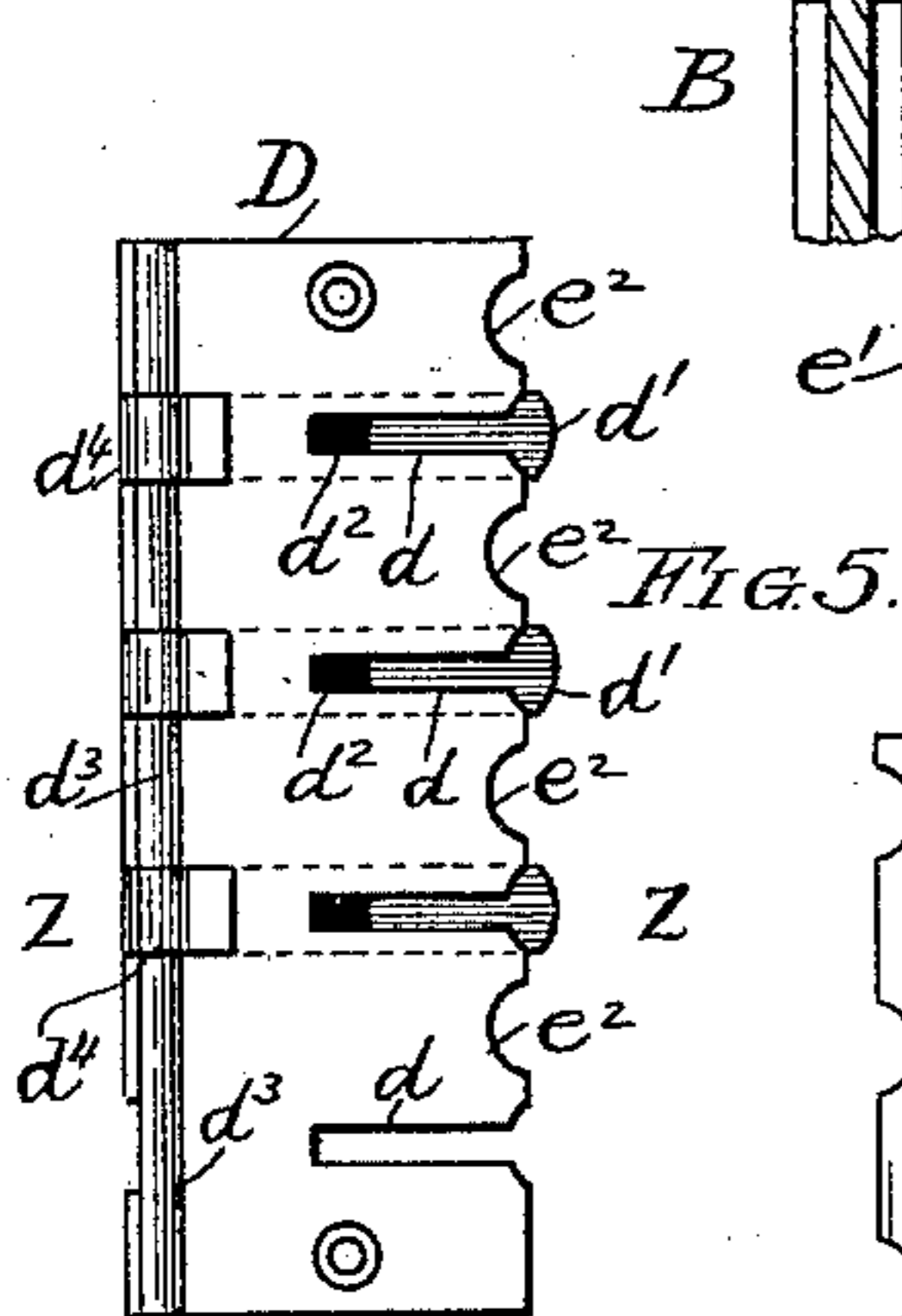


Fig. 5.

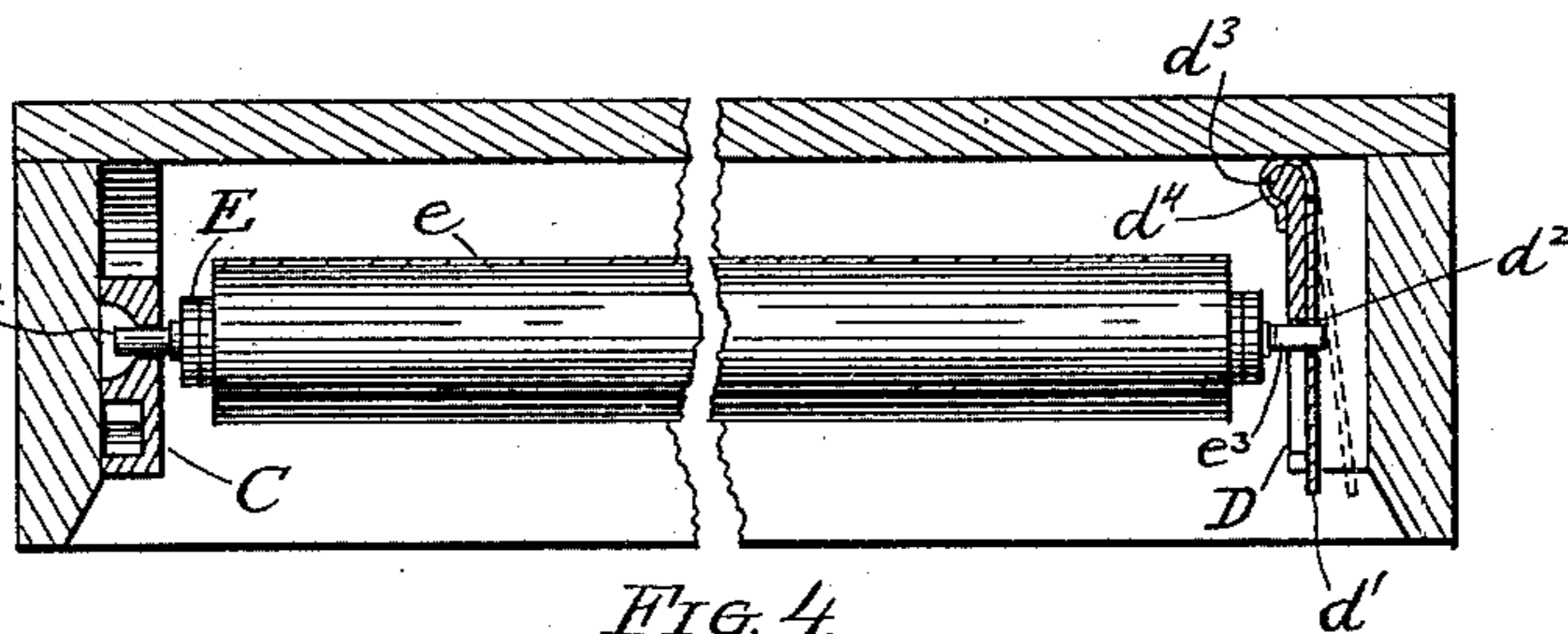


Fig. 4.

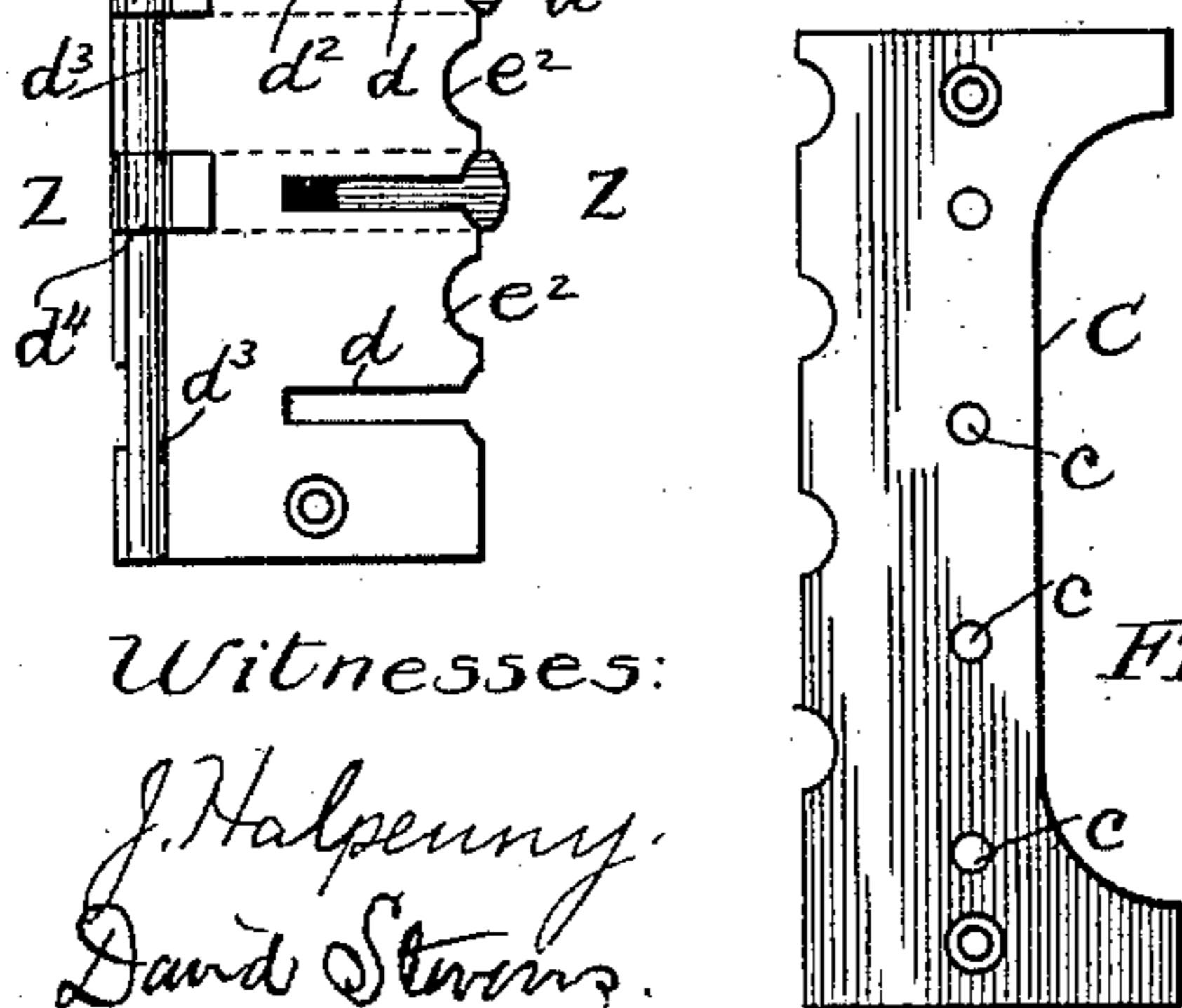


FIG. 6.

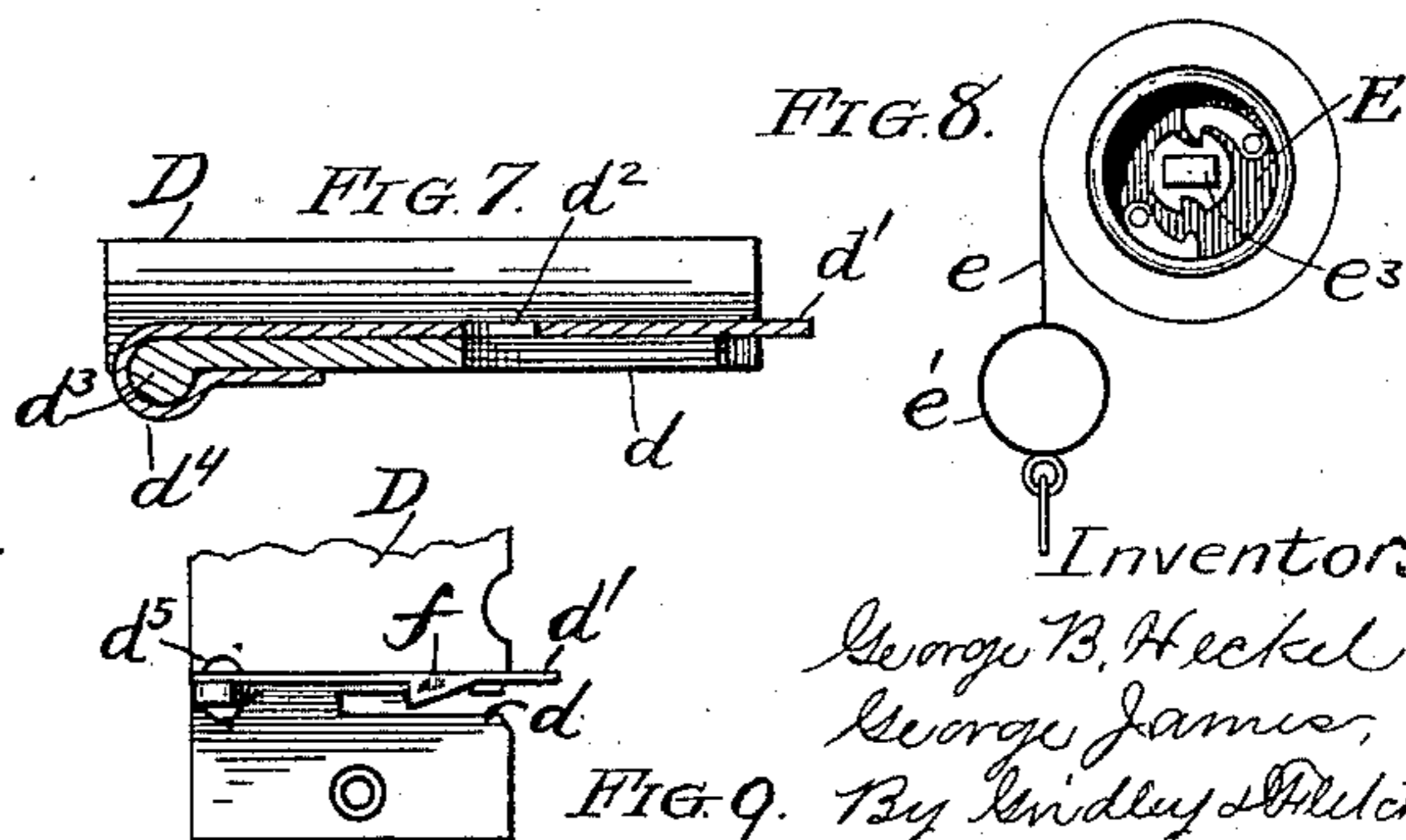


FIG. 8.

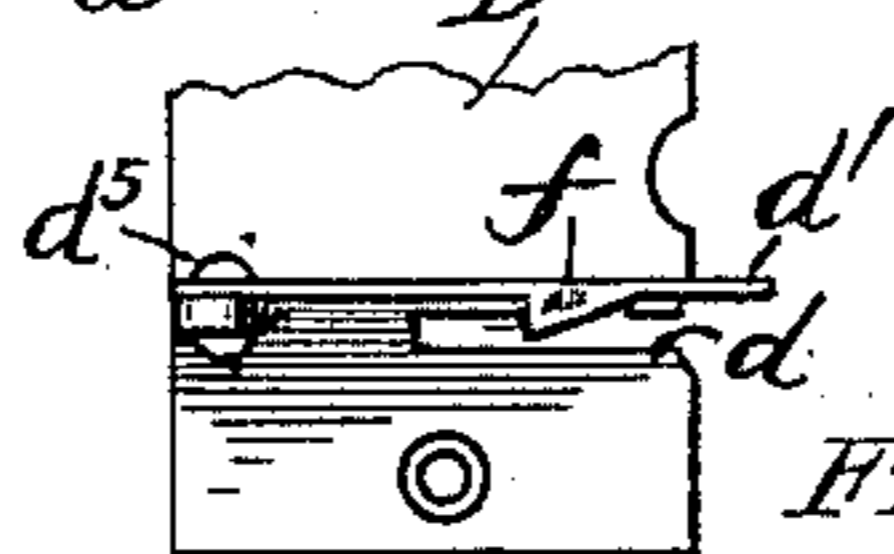


FIG. 9.

Witnesses:

J. Halpenny.
David Strong.

Inventors:

George B. Heckel
George James,
By Lindley Ditcher
Atty.

UNITED STATES PATENT OFFICE.

GEORGE B. HECKEL AND GEORGE JAMES, OF CHICAGO, ILLINOIS, ASSIGNORS
TO RAND, McNALLY & COMPANY, OF SAME PLACE.

MAP-CASE.

SPECIFICATION forming part of Letters Patent No. 405,666, dated June 18, 1889.

Application filed January 25, 1889. Serial No. 297,534. (No model.)

To all whom it may concern:

Be it known that we, GEORGE B. HECKEL and GEORGE JAMES, both of Chicago, in the county of Cook and State of Illinois, have invented
5 a new, useful, and Improved Map-Case, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

10 Figure 1 is a front view of our improved map-case, showing the same open and the maps placed therein ready for use. Fig. 2 is a vertical sectional view of the same, taken upon the line $x x$, Fig. 1, viewed in the direction of the arrow there shown. Fig. 3 is an
15 enlarged front view in detail of a portion of said case, showing the fastening mechanism. Fig. 4 is a horizontal sectional view upon the line $y y$, Fig. 2. Fig. 5 is a side view in detail of the notched locking-plate attached to
20 one end of the case for securing the map-spindle. Fig. 6 is an inside face view of the secondary plate. Fig. 7 is a sectional view of the locking-plate, taken upon the line $z z$,
25 Fig. 5. Fig. 8 is an end view in detail of the map-roll and the spindle which engages the locking-plate, and Fig. 9 is a side view showing a modified form of locking-plate.

Like letters of reference in the different
30 figures indicate like parts.

The object of our invention is to provide a case for maps which may be simple and compact in its construction, may be closed to protect the maps when not in use, with which
35 they may be detachably connected, and in which they may be so arranged as to be readily selected and exhibited for examination.

To these ends our invention consists in the combination of elements hereinafter described and claimed.
40

Referring to the drawings, A represents a map-case, which consists of an oblong shallow box, to the bottom of which is hinged a door B. In the ends of the case, respectively, we
45 secure metal plates C D, for the reception of the map-roller spindles. E, Figs. 2, 3, 4, and 8, represent the roll to which the maps e are attached in the usual way. A stick e' is secured to the bottom of the map for the purpose of handling and to stiffen and protect it.
50 Upon one end of each of the rolls E is rigidly

attached the usual round spindle e^2 , while upon the opposite end is the usual loose spindle, which is journaled in the roll itself and provided with a spiral spring and the protruding end e^3 of which is polygonal in form, like that of the ordinary curtain-roll. The
55 plate C is provided with a series of perforations c , Fig. 6, for the reception of the spindles e^2 , while slots d , of the width of the flat part of the spindles e^3 , are formed in the plate D, for the reception of said spindles. Preferably placed opposite the slots d , and secured to the plate D in any well-known way
60 are springs d' , which rest flatly against said slots, as clearly shown in Figs. 2, 4, 5, and 7. Said springs are by preference provided with perforations d^2 , for the reception of the spindle e^3 , which is adjusted in the following
65 manner: The spindle e^2 is first inserted in one of the perforations c , when the spring d' is bent as shown by the dotted lines in Fig. 4. This permits the spindle e^3 to slide back in the slot d until it reaches the perforation
70 d^2 in the spring d' , when the recoil of the spring locks the spindle e^3 in place. The map may then be raised or lowered, rolled, or unrolled by simply pulling upon or releasing the sticks e' . Each of the plates C D is provided with a series of notches e^2 , for the
75 reception of the sticks e' , so that when said maps are rolled the sticks e' fit in order in said notches, as shown in Figs. 1 and 2, which avoids confusion and enables any map to be selected at sight while rolled by simply placing a label upon the stick. While the springs
80 d' may be riveted or otherwise attached to the plate D, we prefer to attach them in the following manner: Upon the rear of the plate D we form a bead d^3 , Figs. 2, 4, 5, and 7, and the spring d' is bent, as shown at d^4 , to slip over and fit upon said bead, as clearly shown in Fig. 7, which lessens the cost of construction.
85

In Fig. 9 we have shown a modification in which the spring is riveted to the plate at d^5 , and a detent f is formed thereon, as shown, in lieu of the perforation d^2 , and as the mechanical equivalent thereof.

Having thus described our invention, we
90 claim—

1. The combination, with a map-case, of the

roll-holding plates C D, having perforations and slots c d , respectively, suitable rolls, spindles e^3 e^4 , and springs in operative connection with said slots for normally locking said
5 spindles e^3 in place, substantially as shown and described.

2. The combination, with a map-case, of the roll-holding plates C, having perforations c , plates D, having slots d , and beads d^3 , spindles e^3 e^4 , and springs d' , having bent por-

tions d^4 , to conform to said beads, substantially as shown and described.

In testimony whereof we have signed this specification, in the presence of two subscribing witnesses, this 15th day of January, 1889. 15

GEORGE B. HECKEL.
GEORGE JAMES.

Witnesses:

D. H. FLETCHER,
J. HALPENNY.