

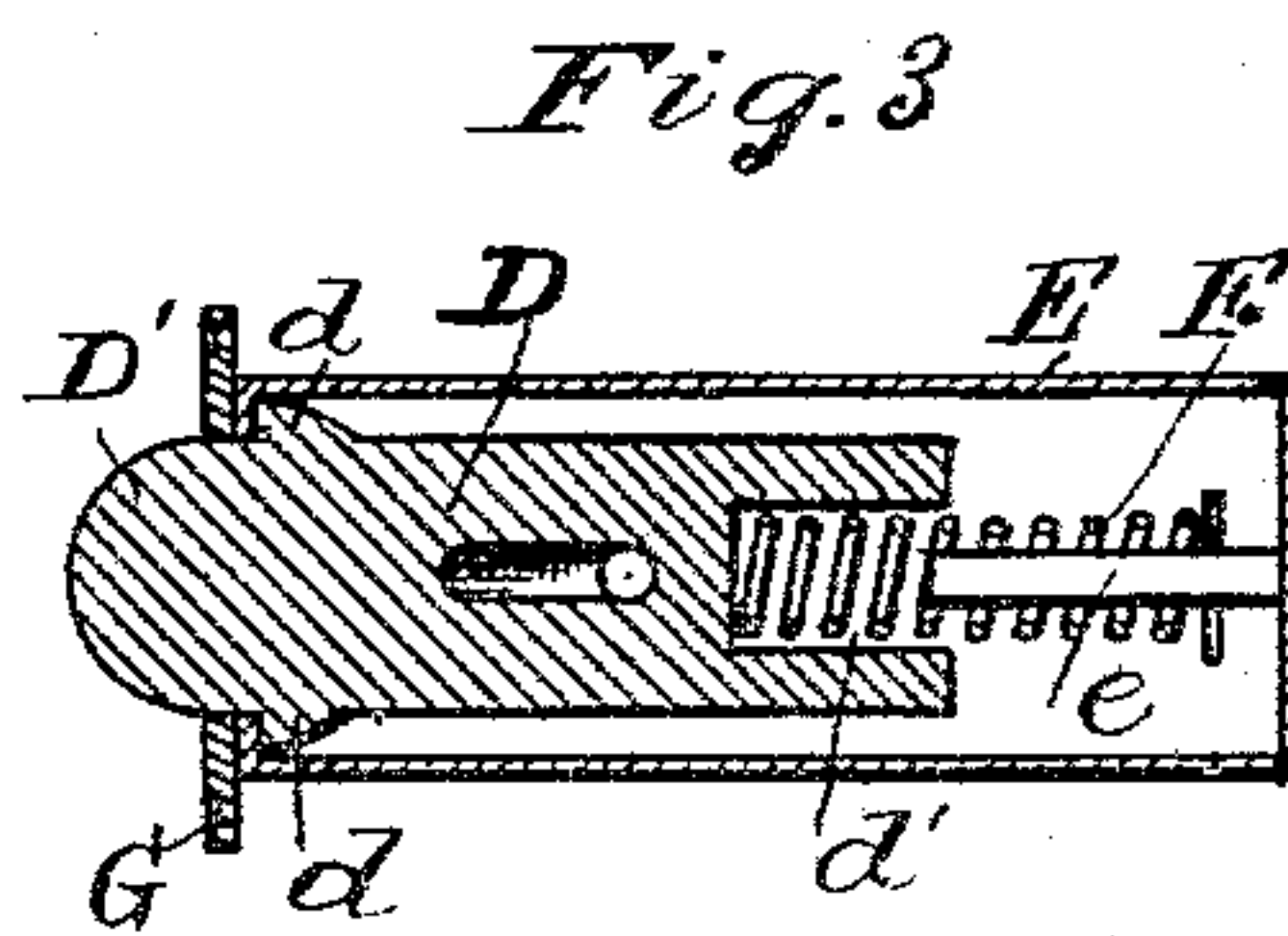
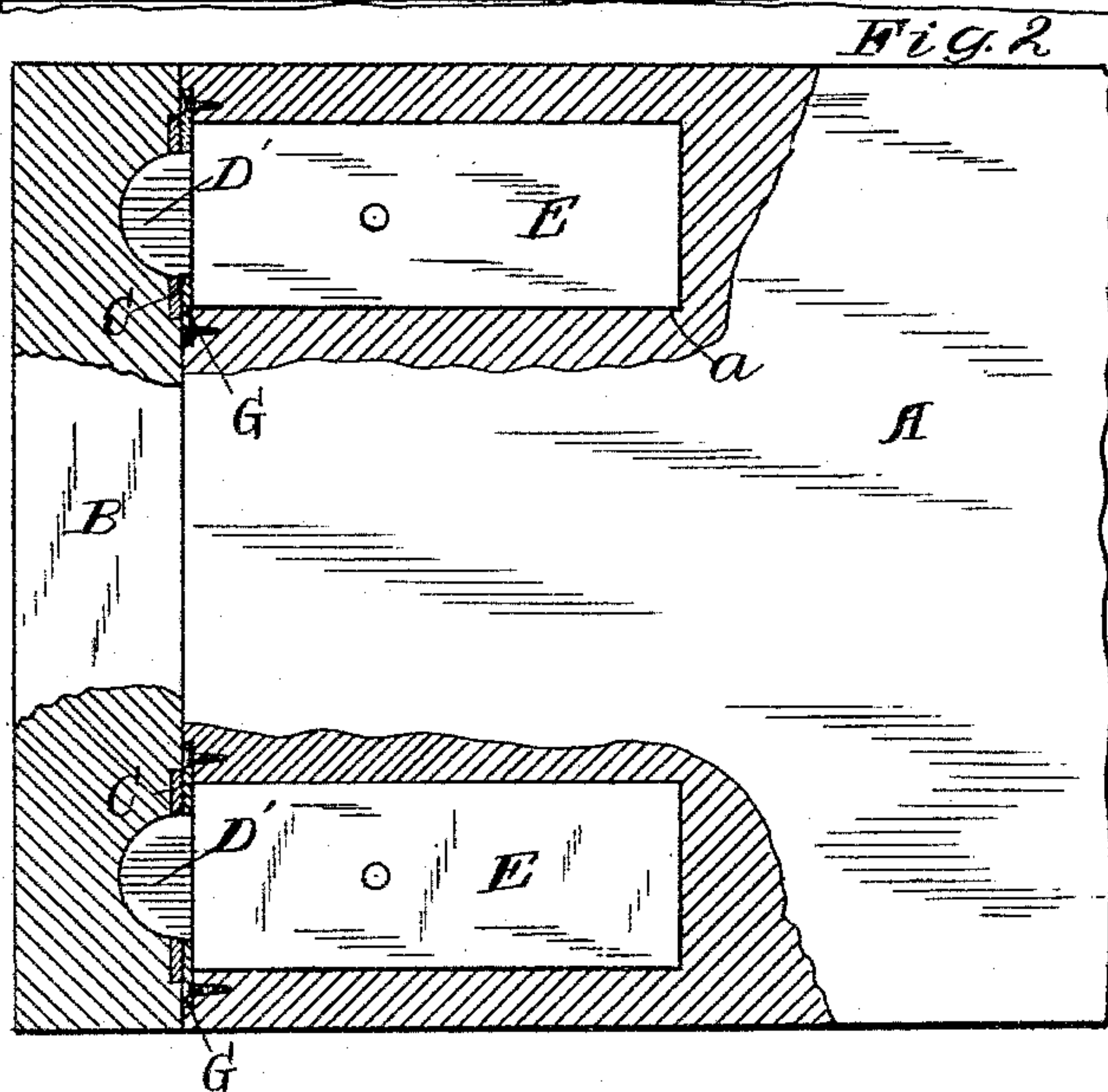
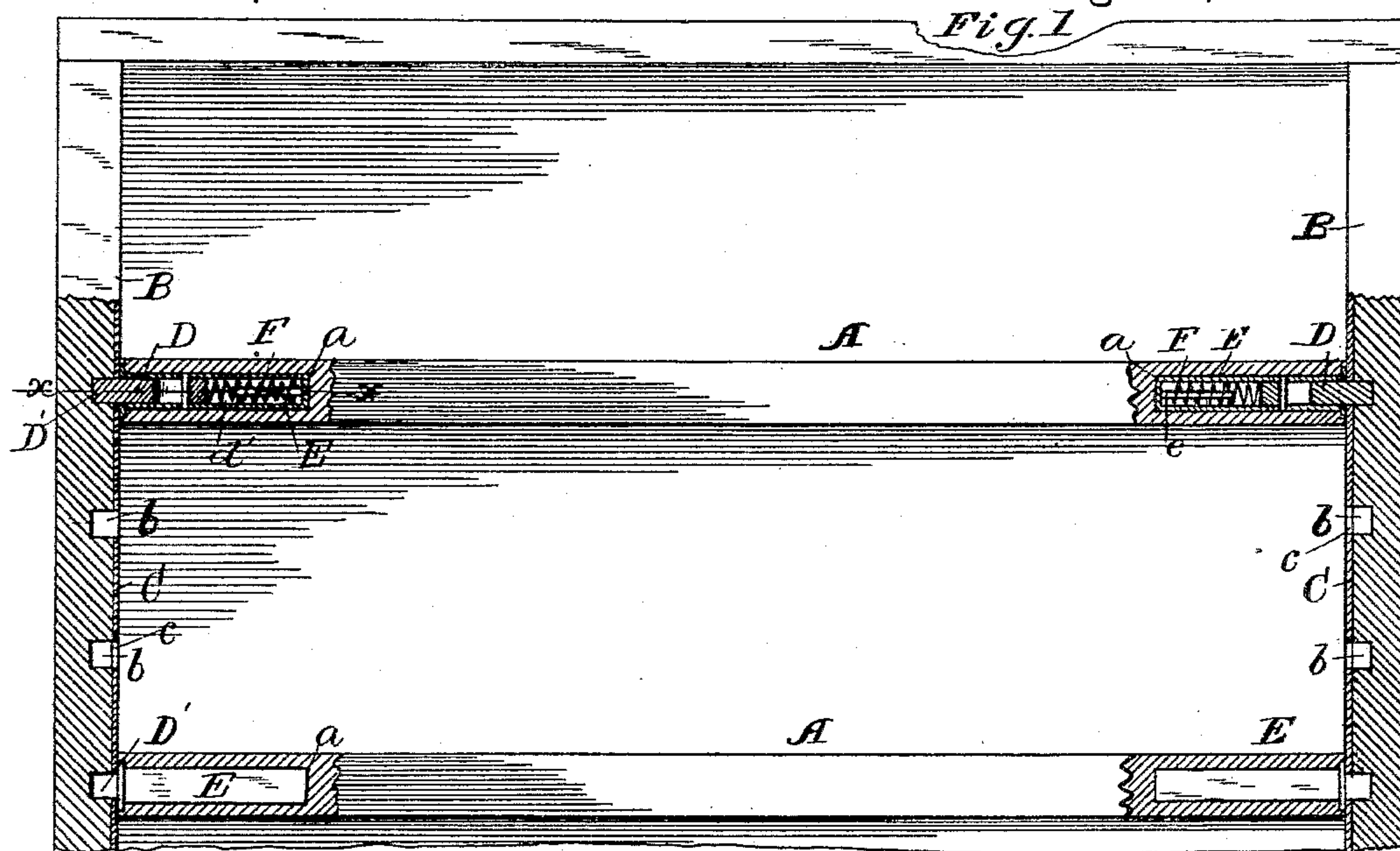
(No Model.)

S. J. MURPHY.

SHELF.

No. 388,066.

Patented Aug. 21, 1888.



Witnesses:
J. C. Turner.
B. O. Sommers.

Inventor:
S. J. Murphy.
By L. H. Bliss & Co.

UNITED STATES PATENT OFFICE.

STARR J. MURPHY, OF MONTCLAIR, NEW JERSEY.

SHELF.

SPECIFICATION forming part of Letters Patent No. 388,066, dated August 21, 1888.

Application filed February 24, 1888. Serial No. 265,105. (No model.)

To all whom it may concern:

Be it known that I, STARR J. MURPHY, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Shelves, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a front elevation, partly in section, showing shelves having my invention applied thereto. Fig. 2 is a top or plan view of one end of a shelf and its support, enlarged. Fig. 3 is a vertical section on line *x x*, Fig. 1. Fig. 4 is a detached view of a modified form of the sliding bolt.

The object of my invention is to provide a cheap and durable means for supporting shelves in suitable positions in such manner that they can be easily moved or adjusted without detaching any part of their fastening or supporting devices and without the use of any tools; and it consists of certain novel features of construction and combination of parts, which will be particularly pointed out in the claims.

Like letters indicate like parts in all the figures.

As illustrated in the drawings, the shelves are supported at their ends between two vertical posts or end pieces; but the character of the fastening devices is such that they are equally adapted for use in connection with partitions which are arranged in vertical positions, where it is undesirable that they should move either to the right or to the left.

A is the shelf, provided at either end with one or more mortises or recesses, *a*.

B B are the vertical end pieces between which the shelf or shelves may be supported. Each of these end pieces has upon its inner face one or more mortises or recesses, *b*. By preference I attach to the inner face of each end piece a metal strip or plate, C, with one or more slots, *c*, corresponding substantially to the mortise or mortises or recesses *b*, in order to furnish a better support for a locking plate or bolt, to be hereinafter described, and also to prevent the recess or recesses from being worn or cut away by such bolt.

D D' *d d* is a locking bolt or plate, the outer end, D', of which is by preference rounded or beveled, as indicated.

d d are stops, lugs, or spurs projecting lat-

erally from one or both edges of the locking-bolt.

E is a shell or casing of such size as will permit the locking bolt or plate to be seated therein and move freely endwise. *e* is a pin or stud projecting forward or outward from the rear wall or end of this casing, and entering a socket, *d'*, in the locking plate.

F is a coiled spring surrounding the stud or pin *e*, to force the locking-plate outward until the spur or stop *d* engages with a guard-plate, G, which is secured to the end of the shelf, and has a slot through which the rounded end of the locking-plate projects.

From examination of the drawings it will be readily understood that when these locking-plates enter and are seated in the recesses *b* of the end pieces the shelves will be firmly supported in position against up and down or sidewise movement, as the case may be; but they can be moved edgewise for the purpose of putting them in place or withdrawing them from between the end pieces, because the engagement of their rounded or beveled ends will crowd the locking-plates inward, the springs F thrusting the plates outward as soon as they are released from endwise pressure upon their outer ends. By reason of these locking-plates being mounted in recesses formed in the ends of the shelves, the upper and lower sides of the shelves may be made entirely smooth, so that there is little or no wear upon the edges of the covers of books as compared with that resulting from the use of shelves the fastening or locking devices of which project from the sides of the shelves; and again, by reason of the locking-plates being attached to and carried by the shelves, there is no danger of their being accidentally misplaced or lost during the handling to which the shelves are ordinarily subjected during use or transportation.

While I have shown what I consider the best mode now known to me for carrying out my invention, yet I do not wish to be limited to the details of construction here shown, because many modifications will suggest themselves to a skilled mechanic without departing from the spirit of my invention. For instance, the casings and locking-plates might be applied to the upper or lower sides of the shelves; or one side wall of the casing might be omitted; or,

instead of one or more of the stops or lugs *d*, the locking-plate might be slotted, with a pin or rivet put through the slot and the casing to limit the movement of the plate; or, instead of the guard-plate *G*, the casing might be provided with a spur or lip (one or more) at its outer end, to be bent over into the path of the stop *d* after the locking-plate has been inserted within the casing; or, instead of a sliding locking-plate, a pivoted plate or bar might be employed with a spring to thrust the swinging ends of the plate or bar into the recess in the end pieces.

I am aware that a shelf has been hinged at one end and provided at its opposite end with a sliding latch adapted to take into an end piece, and provided with a pin or thumb-piece projecting at right angles from the side of the shelf to withdraw the latch from its recess in the end piece. I am also aware that a gate has been hinged at one end or side and provided with a latch or locking bolt or plate beveled or rounded upon that side which is toward the side of the gate, so that when the gate is swinging sidewise upon its hinges the latch or locking-plate will engage with a recessed plate upon a post and be thrust back into the gate to permit the gate to swing into substantially the same vertical plane with said post; but in neither of these constructions is it possible to move the gate or shelf bodily sidewise relatively to its supports, because of its being hinged to one of them; nor in either the shelf or the gate is the beveled or rounded edge of the latch-plate turned toward the edge of the gate or shelf; nor can either the gate or shelf be moved edgewise when placed between their supports, whereas in my shelf the object of the invention is to permit it to be moved bodily sidewise and have both its ends supported in different positions relatively to the end pieces. It can be moved edgewise out and in between the end pieces. The locking-plates are arranged with their beveled, rounded, or inclined faces toward the edges of the shelf, and when in their recesses in the end pieces the shelf is supported upon the sides of the locking-plates which are at right angles to their inclined faces, the shelves being in horizontal planes; but of course the operation of the devices is substantially the same when applied to partitions which are capable of being moved bodily to the right or left into different vertical planes.

I am aware of Patent No. 255,771, which shows a door having its opposite edges mounted in grooves the walls of which overlap both sides of the door adjacent to those edges, and

provided upon its edges with locking-bolts which take into mortises or sockets formed in the grooved pieces adjacent to the grooves, but not in that part of the wood which is adjacent to and facing the edges of the door. In such construction the function of the bolts is radically different from that of any locking-plates, because, among other things, mine support the shelf against being moved bodily sidewise, whereas in that patent the parallel walls of the groove thus support the door, and would do so even though the bolts were absent. Again, the only function of the bolts in the patent is to prevent the door from sliding edgewise, whereas my latches are so constructed as to permit such edgewise movement, offering but little resistance thereto, the relation of parts being such that in ordinary use there is no tendency on the part of the shelves to move edgewise. In that patent the sole object of the bolts is to support the door at different heights, with the entire weight of the door resting upon the bolts. Whenever in this patent I use the word "sidewise" I refer to a movement of the shelf bodily toward or from the ends of its supporting end pieces in contradistinction to a movement either endwise or edgewise—such, for instance, as is employed in pushing the shelf into position between its supporting end pieces or pulling it out from between them, or a swinging movement such as is common when one end of a shelf is hinged to one of its supporting end pieces.

What I claim is—

1. The combination, with the shelf and its supporting end pieces, of movable plates applied to both ends of the shelf and having their inclined faces toward the front and rear edges of the shelves, substantially as set forth.
2. The combination, with the shelf and its supporting end pieces, of movable locking-plates seated in the recesses and between the sides of the shelf and projecting from the ends of the shelf into the supporting end pieces, substantially as set forth.
3. The combination, with the shelf having recesses *a* in its ends, of slotted guard-plates attached to the ends of the shelf and movable locking-plates seated in the recesses and projecting through the guard-plate, substantially as set forth.

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

STARR J. MURPHY.

Witnesses:

CHAS. A. DOUBLEDAY,
CHAS. S. WILLIAMS.