

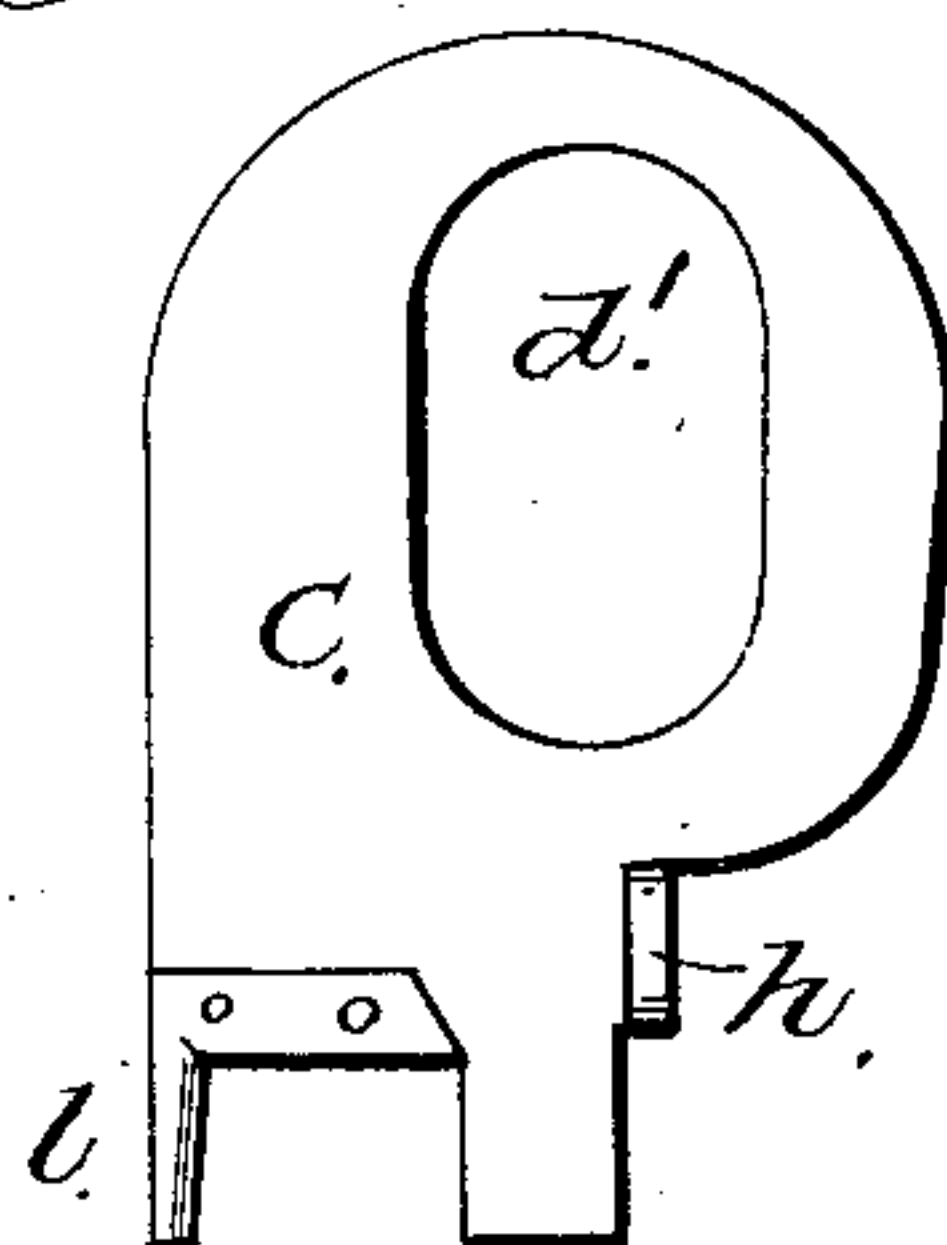
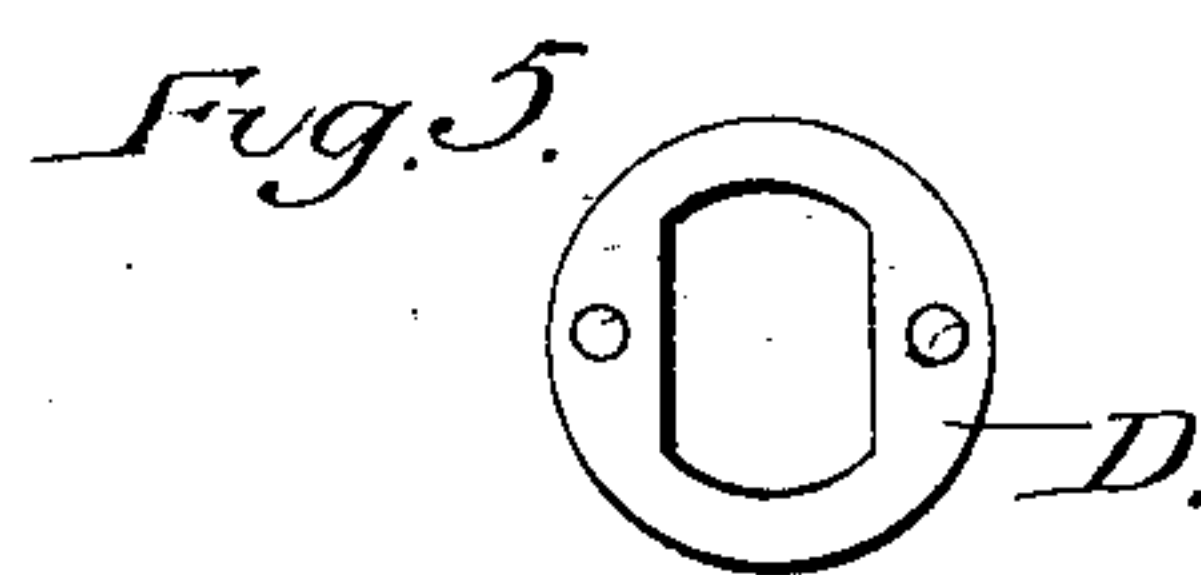
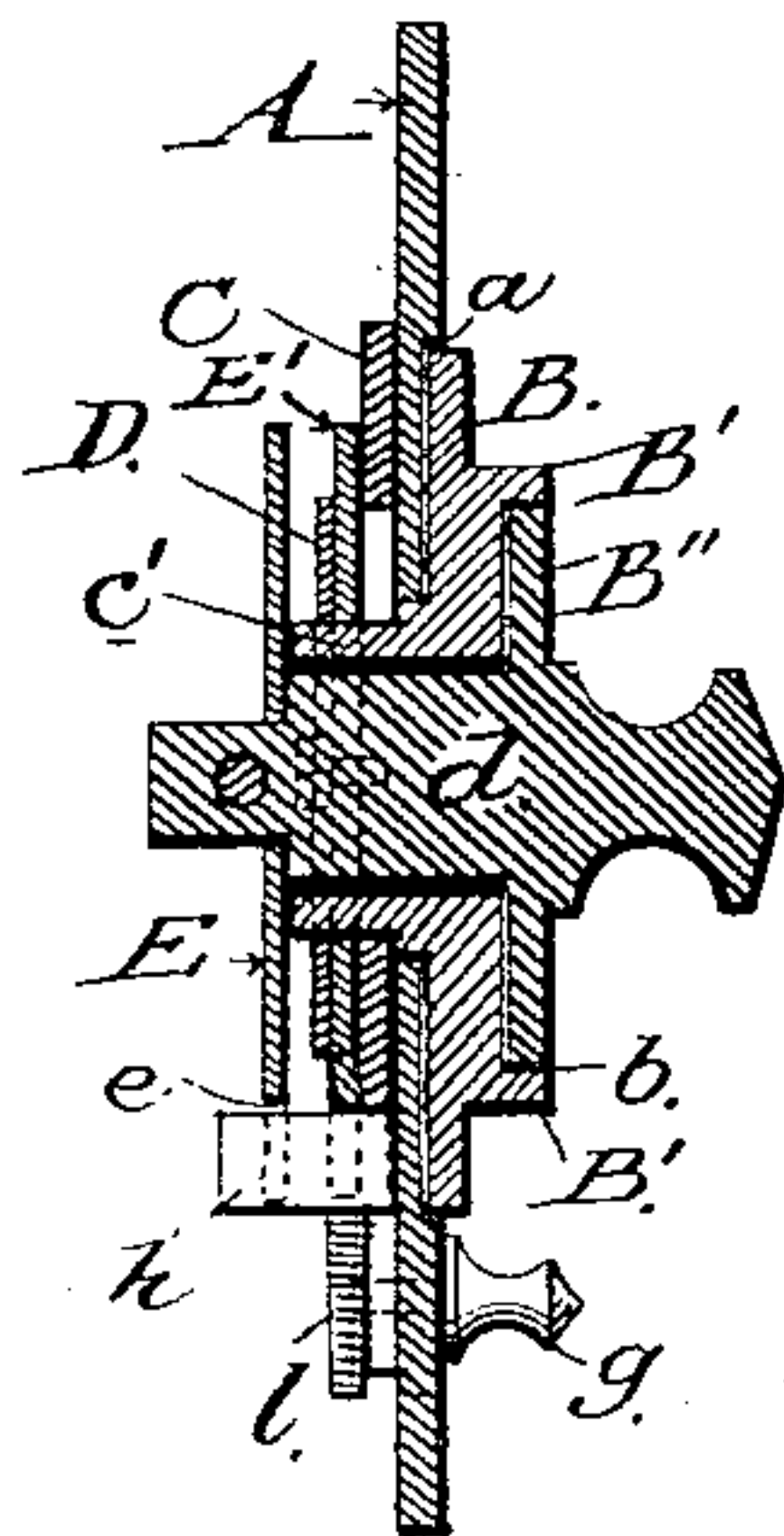
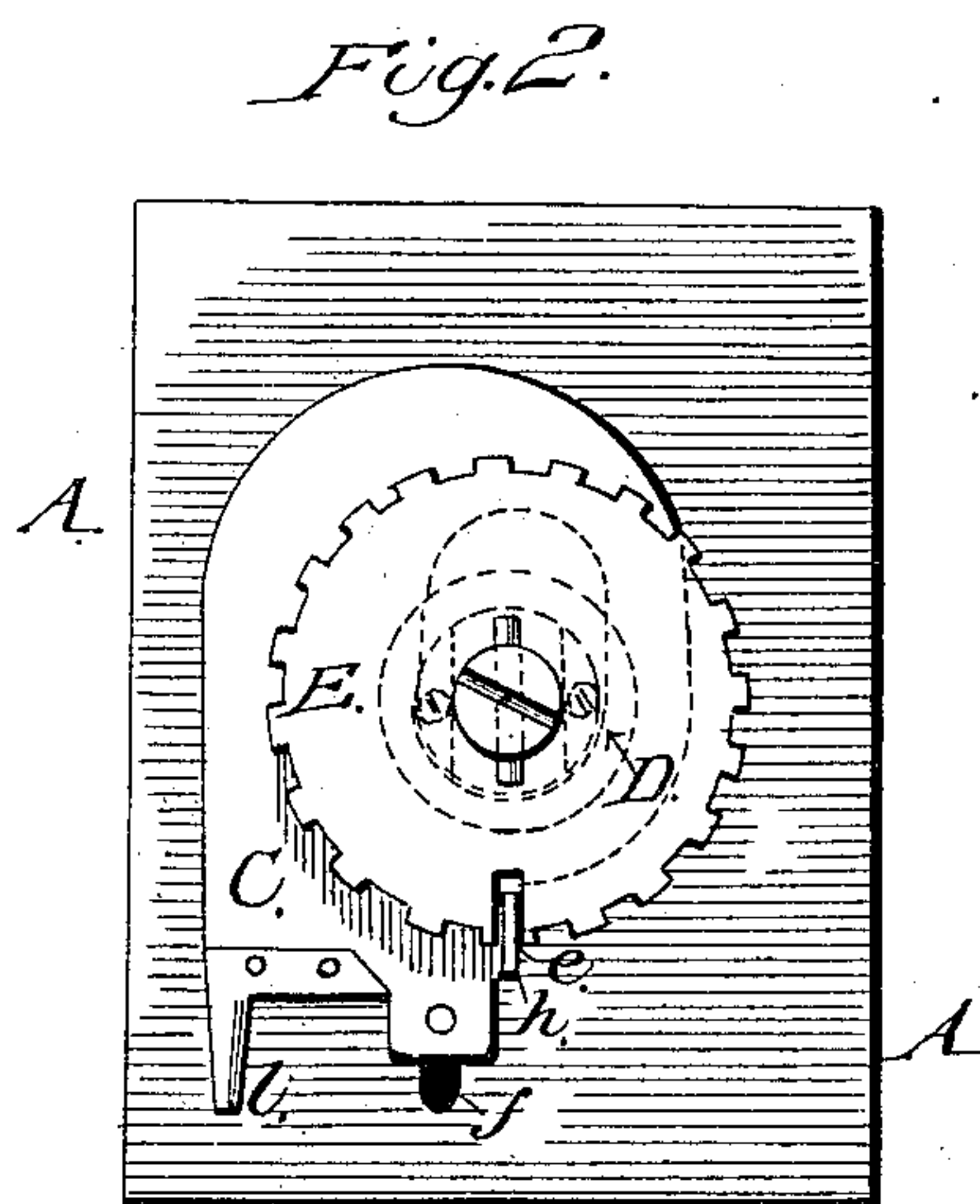
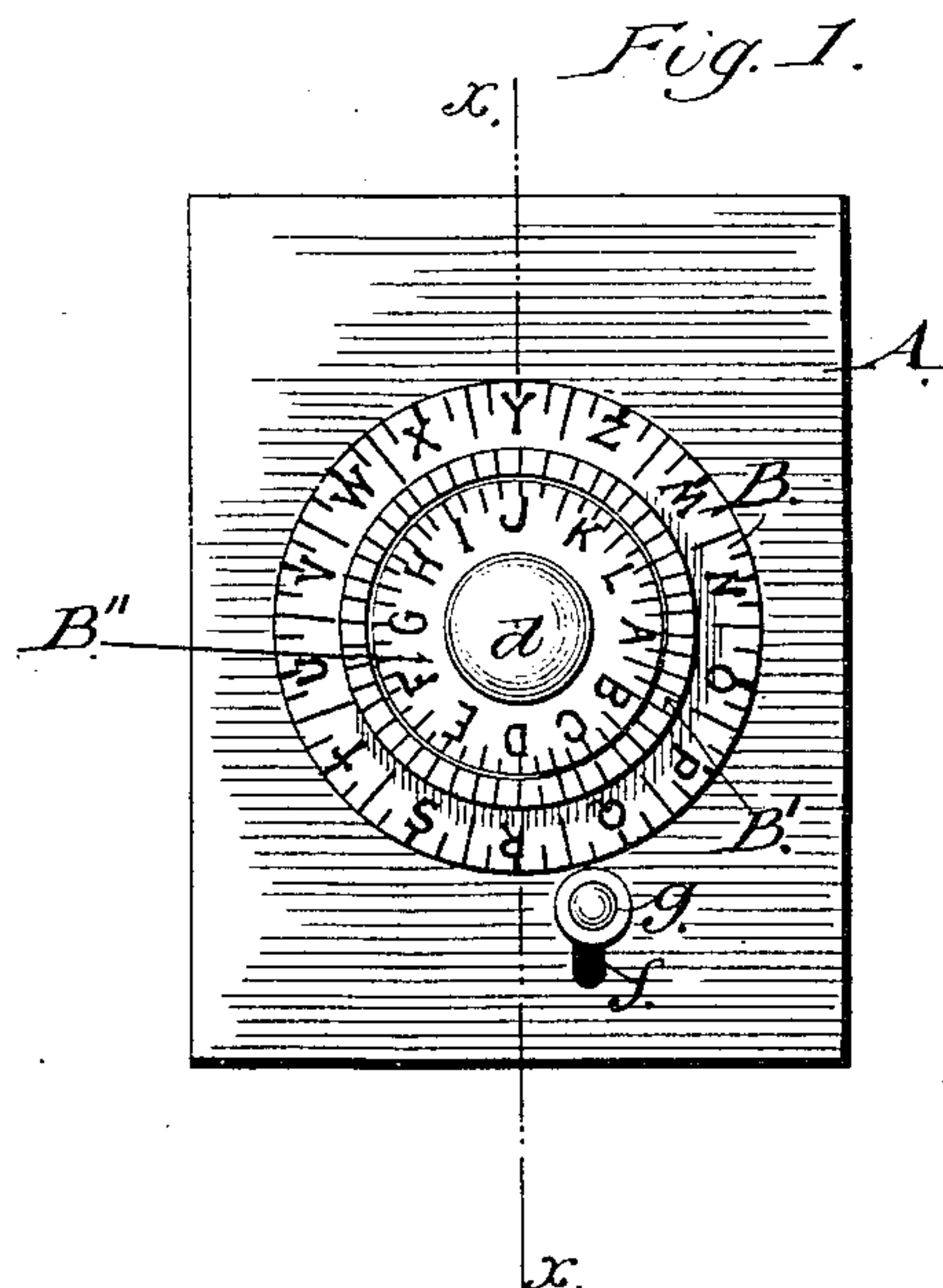
(No Model.)

J. H. & T. D. MORRIS.

PERMUTATION LOCK.

No. 368,414.

Patented Aug. 16, 1887.



Witnesses

T. W. Fowler

M. Mattenson

Inventor

John H. Morris

Thomas D Morris

By their Attorneys

A. H. Evans & Co.

UNITED STATES PATENT OFFICE.

JOHN H. MORRIS AND THOMAS D. MORRIS, OF SEWARD, NEBRASKA.

PERMUTATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 368,414, dated August 16, 1887.

Application filed May 5, 1887. Serial No. 237,228. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. MORRIS and THOMAS D. MORRIS, citizens of the United States, residing at Seward, in the county of Seward and State of Nebraska, have invented certain new and useful Improvements in Permutation-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front view of a permutation-lock embodying our invention. Fig. 2 is a rear view of the same. Fig. 3 is a vertical sectional view on the line X X of Fig. 1. Fig. 4 represents a detail of the sliding bolt. Fig. 5 is a detail of the washer D.

Our present invention is designed to simplify the construction of permutation-locks, and at the same time provide a lock that may be cheaply constructed and prove very effective in its operation; and to that end our invention consists in the peculiar construction and combination of devices, which we shall hereinafter fully describe and claim.

To enable others skilled in the art to which our invention appertains to make and use the same, we will now describe its construction and indicate the manner in which the same is carried out.

In the said drawings, A indicates the face-plate of the lock, having a recess or countersink, *a*, within which is seated a dial, B, having formed in or on its face any suitable number of notches and characters. The dial B in the present instance is provided with a raised rim, B', having a recess, *b*, within which a second dial, B'', is suitably seated and permitted to rotate, the said dial B'' being flush with the top of the rim and secured to a stem, *d*, which passes through an opening in the face-plate.

The sliding bolt C is provided with an elongated slot or opening, *d'*, which receives the inner end of the sleeve *c'* on the dial B, whereby said bolt is permitted to slide freely, being guided in its movements by the inner end of said sleeve. A disk or washer, D, having an elongated opening to snugly fit the squared end of the sleeve, is firmly secured to said sleeve and confines the sliding bolt between the tumbler E' and the back of the face-plate.

The smaller dial, B'', is connected with the stem *d*, which passes through the sleeve, and has its inner end reduced in size to receive a notched disk or tumbler, E, having the usual slot, *e*, a similar disk or tumbler, E', being also secured to the end of the sleeve *c'*, as shown in Fig. 3, the two disks or tumblers being held in place by a pin or bolt passing transversely through the reduced outer end of the stem, as shown in Fig. 2.

The face-plate A is provided with slot or opening *f*, through which a headed pin, *g*, projecting from the sliding bolt, passes and furnishes means for moving said bolt into or out of engagement with the disks or tumblers, the said sliding bolt having also a lug or projection, *h*, extending at right angles therefrom and adapted to engage the slots *e* in the disks or tumblers when said slots are brought into alignment with the projection. In addition to these features, the sliding bolt has a projecting lug, *l*, extending from its lower edge and adapted to engage an opening in a plate or similar device (not shown) fastened to the casing contiguous to the lock.

By reason of the above construction we are enabled to provide a strong and yet simple lock, the combination of which may be instantly modified by changing the position of the tumblers with relation to the characters on the dials, and one in which the door can only be opened by a person familiar with the existing combination.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The face-plate, the recessed dial B, and the dial B'', seated in the recess therein and having a stem passing through a sleeve on the recessed dial, in combination with a sliding bolt slotted on said sleeve and having the lugs *h* and *l*, the slotted disks or tumblers engaged by the lug *h*, and a knob or headed bolt projecting from said bolt and extending through a slot in the face-plate, substantially as herein described.

JOHN H. MORRIS.
THOMAS D. MORRIS.

Witnesses:

M. D. CHRISTY,
SELDEN MARVIN.