

(No Model.)

E. N. PORTER.

DOOR LATCH.

No. 279,797.

Patented June 19, 1883.

Fig. 1.

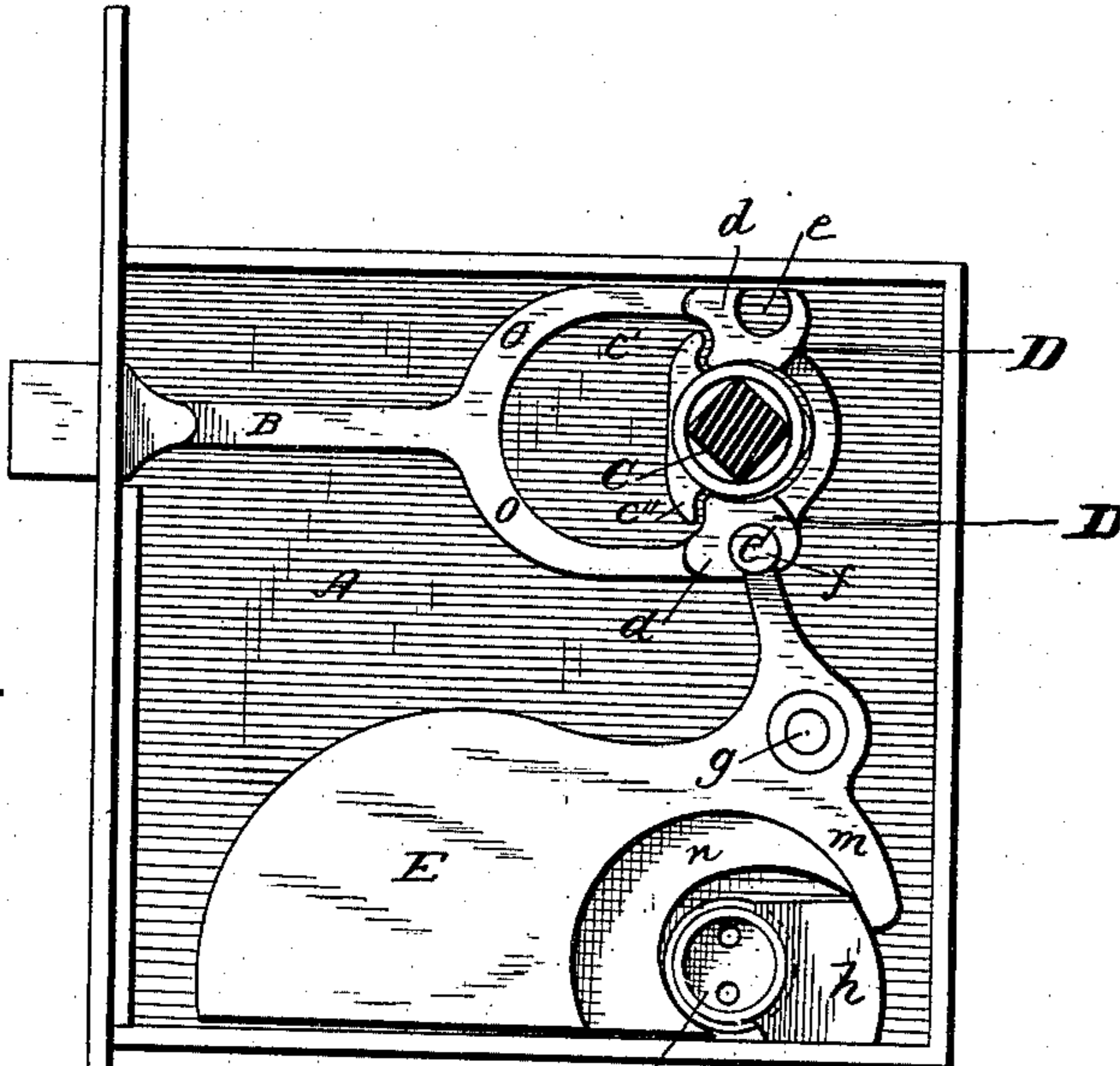


Fig. 4.

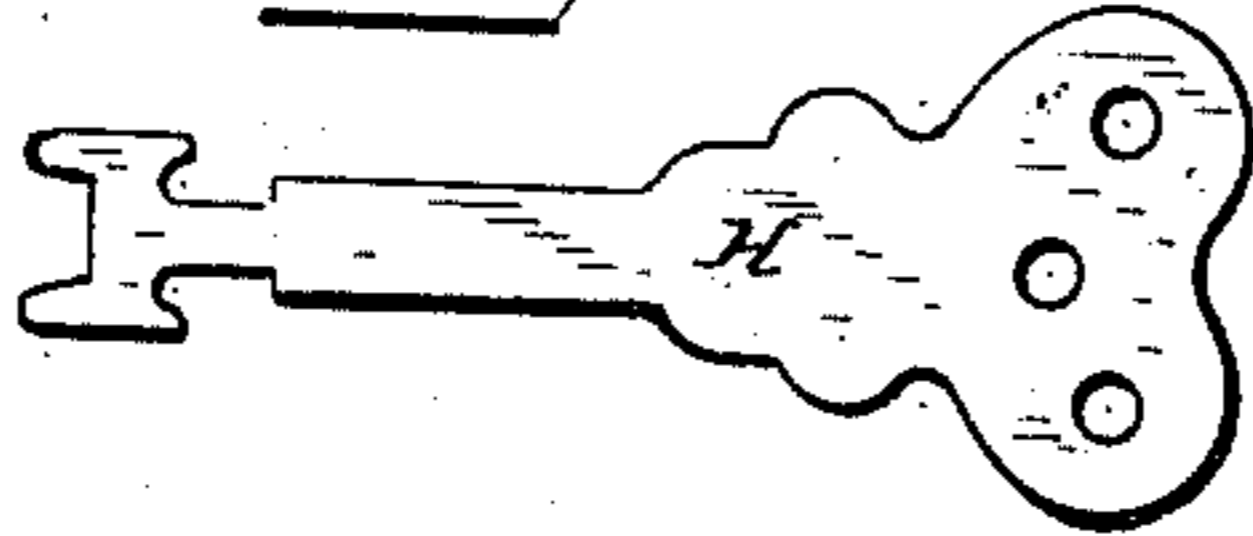


Fig. 2.

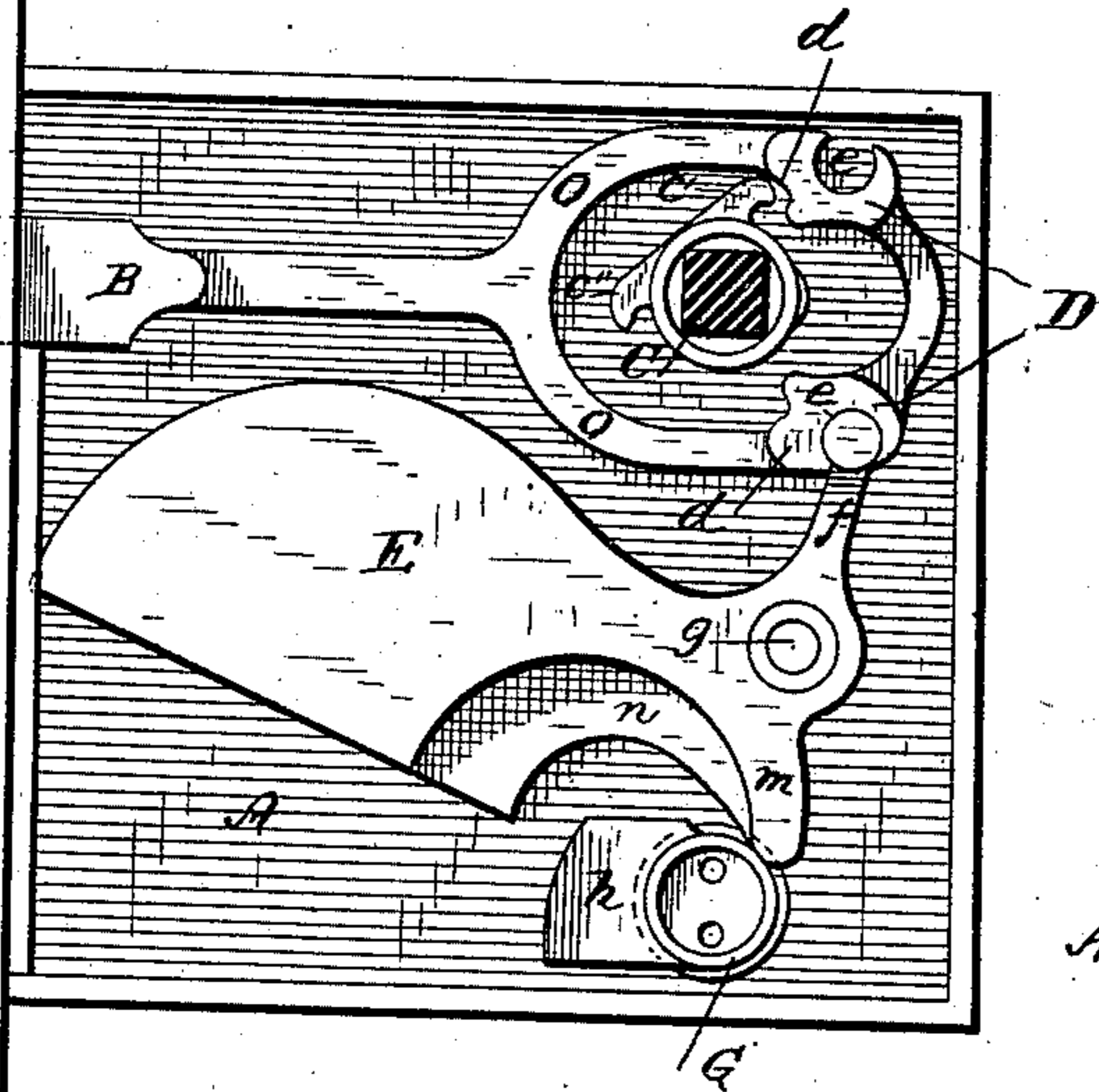
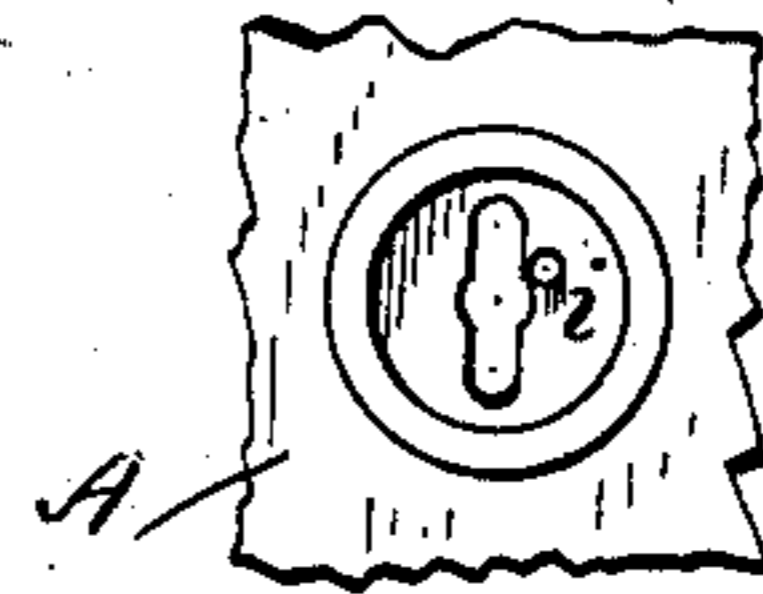


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDWARD N. PORTER, OF BURLINGTON, VERMONT.

DOOR-LATCH.

SPECIFICATION forming part of Letters Patent No. 279,797, dated June 19, 1883.

Application filed February 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWARD N. PORTER, a citizen of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Latches, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in latches in which a bolt which is reversible is operated in conjunction with a pivoted weighted lever, which is so arranged as to be secured by means of a weighted stop, which is operated at will by a key; and the objects of my improvement are, first, to provide a bolt so constructed as to be reversible and operated by lugs upon the hub of the knob-spindle; second, to provide a more simple and direct action of the weighted lever upon the bolt; and, third, by effectually controlling the movements of the weighted lever, and therefore of the bolt, by means of a weighted stop having suitable guard or guards and operated by a key. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of the interior of my latch, the bolt being locked. Fig. 2 is a similar view, the bolt being unlocked and retracted. Fig. 3 is an under-side detail in elevation of the face-plate, showing the key-guard; and Fig. 4 is a plan of the key.

Similar letters refer to similar parts throughout the several views.

A is the latch-case; B, the bolt or latch, its interior end terminating in a yoke, O, with one arm passing above and one below the hub C of the knob-spindle. At the end of each arm, immediately above and below the hub C, are ears D, having shoulders *d*, against which the lugs *c' c''* of the hub C are designed to press, and recesses *e e* to receive the end of the upper arm, *f*, of the weighted lever E. This lever is pivoted at *g*, the interior of the pivotal pin being threaded to receive the screw by which the cap-plate F is attached to the case A.

G is a weighted stop, which has a semicircular movement, its weighted arm *h* moving in a circular shoulder, *n*, cut into the under side of the lever E. It is operated by a key, H, preferably made with two bits at the end

of the shank, which fit into corresponding holes in the stop G. A guard or guards, *i*, on the interior of the case, within the circle in which the stop turns, is so placed as to prevent the stop being revolved by any instrument not constructed to pass over it. By turning the arm *h* against the lower arm, *m*, of the lever E, all motion of the lever, as well as of bolt B, is effectually stopped, thereby easily and securely locking the latch until, by turning the weighted arm *h* of the stop G back against the weighted arm of the lever E, the lever, being again left free to act, can be raised as the bolt is thrown back by the knob. The entire weight of the lever E being below its pivotal point at *g*, its effect is thereby to throw or force the bolt B outward whenever it is free to act, thus constituting a latch which is easily operated and at all times reliable. At the same time its direct connection with and operation upon the bolt through the lever-arm *f* and recess *e* of the bolt render its operation not only simple and easy, but more reliable and less subject to injury than it would be were the parts more complicated and less direct in their action.

What I claim is—

1. The reversible latch B, having a yoke, O, with ears D, recesses *e*, and shoulders *d*, in combination with the hub C of the knob-spindle and the weighted lever E, for operating the bolt, substantially as set forth.

2. In a latch, the reversible bolt B, provided with the recesses *e*, and the bolt-operating hub C, combined with the weighted lever E, having an arm, *f*, to directly engage the bolt, and the weighted stop G, to co-operate therewith, substantially as described.

3. The combination, substantially as shown and described, of the case A, bolt B, provided with ears D, the hub C, having lugs *c' c''*, the pivoted weighted lever E, having the shoulder *n* and arm *m*, and the weighted stop G, to engage said lever to lock or throw it, and a key, H, to operate said stop, substantially as set forth.

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

EDWARD N. PORTER.

Witnesses:

CHARLES E. ALLEN,
CHAS. F. LEWIS.