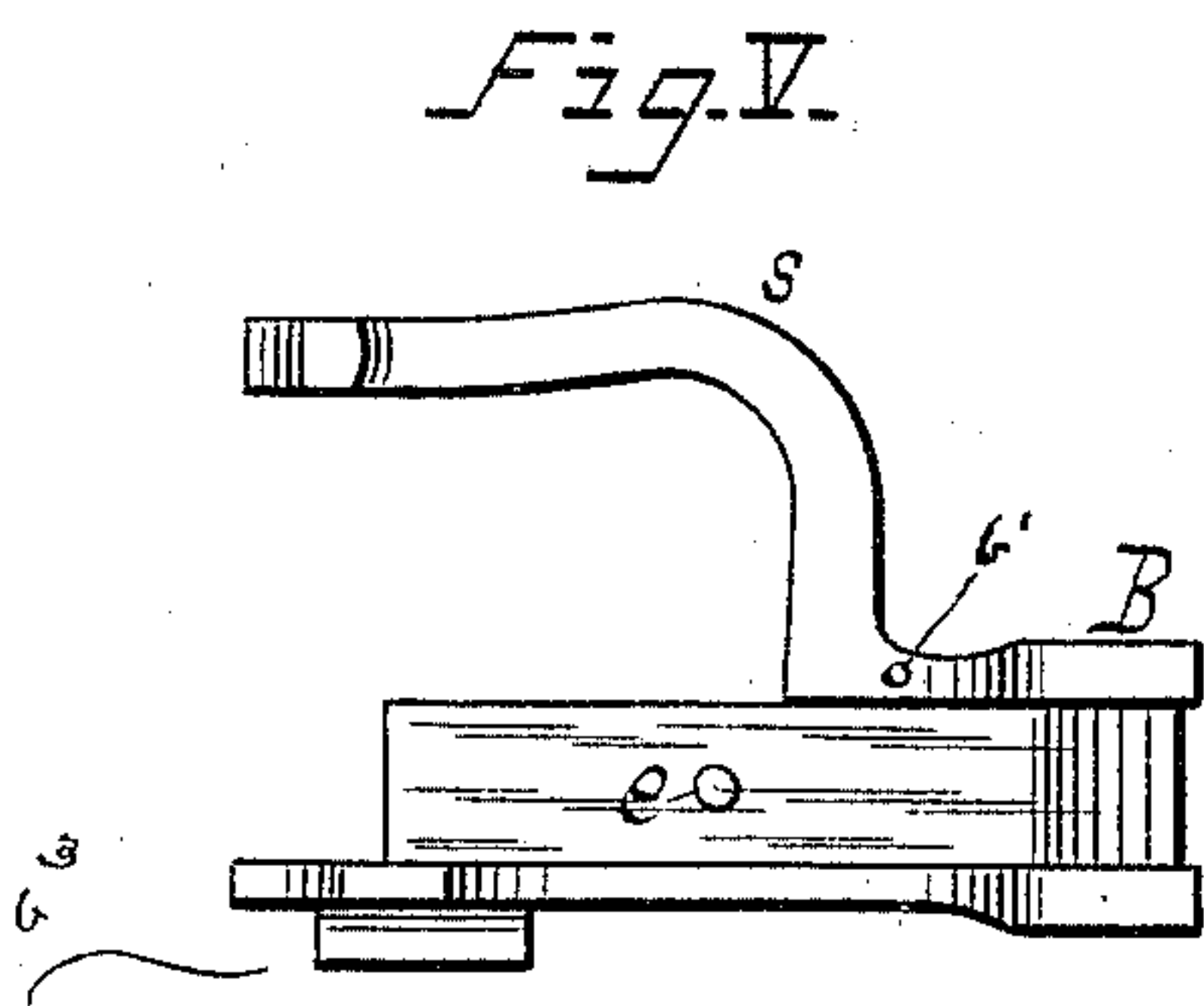
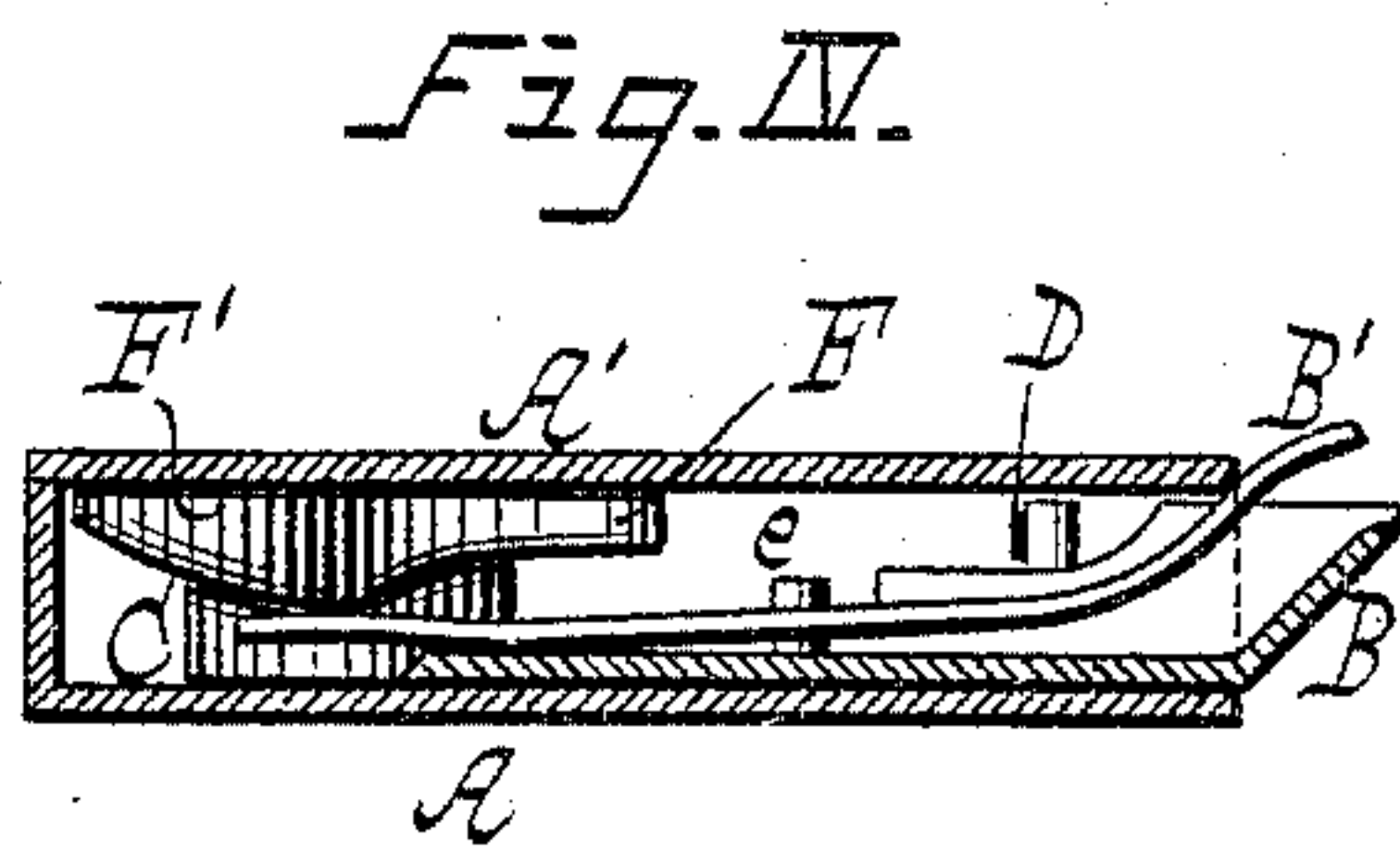
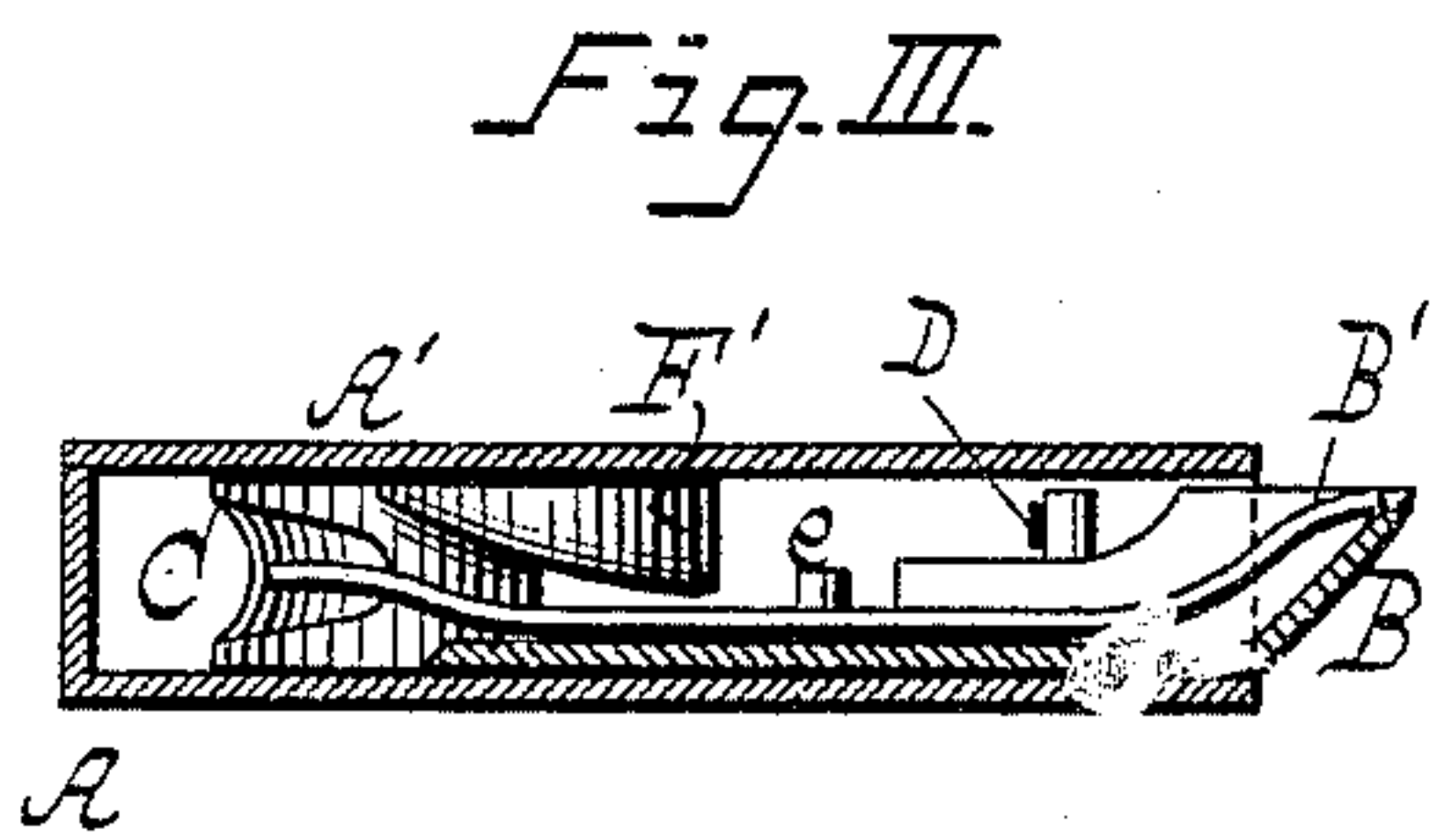
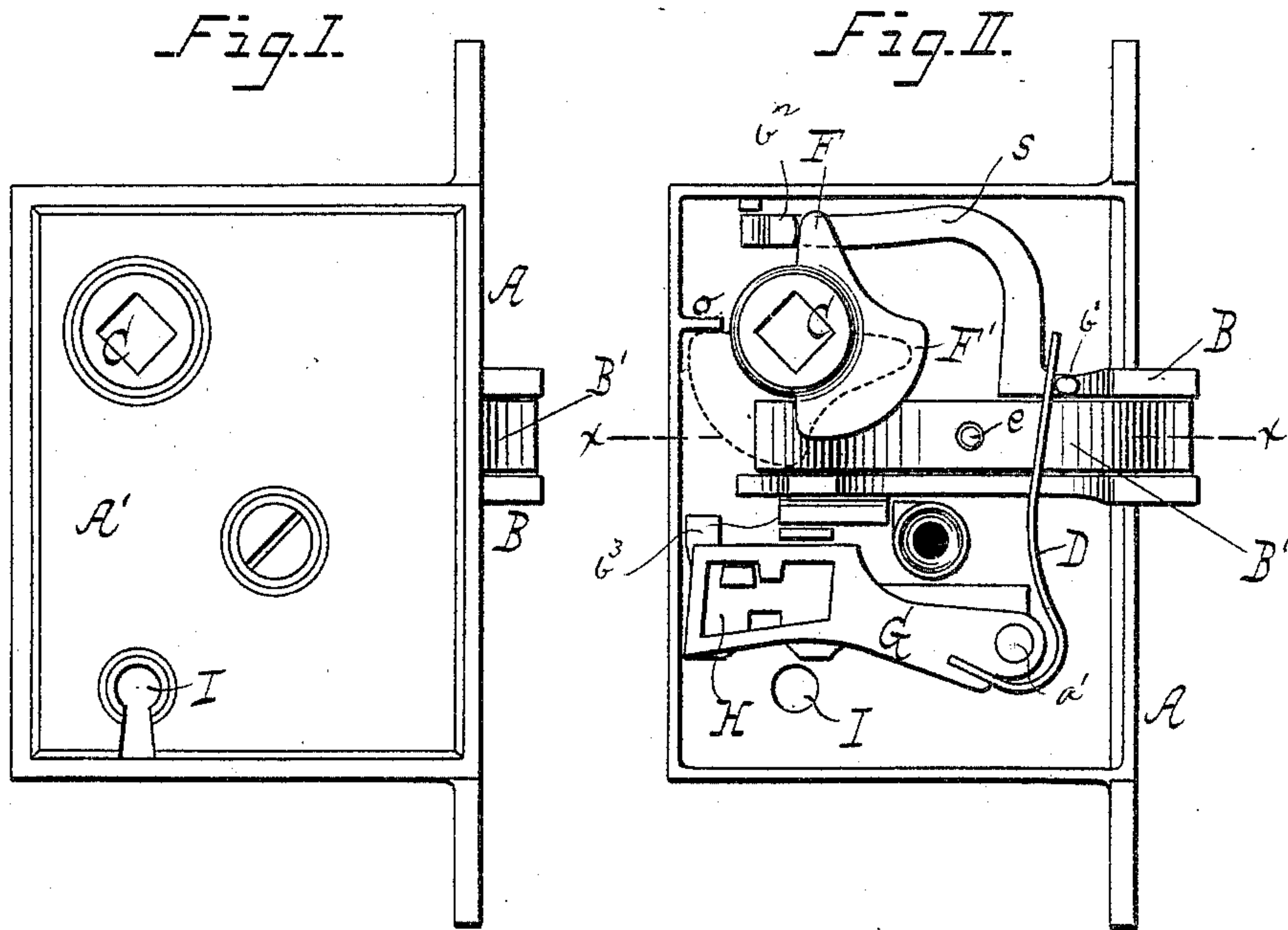


(Model.)

F. KEIL.
LATCH AND LOCK COMBINED.

No. 442,982.

Patented Dec. 16, 1890.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FRANCIS KEIL, OF NEW YORK, N. Y.

LATCH AND LOCK COMBINED.

SPECIFICATION forming part of Letters Patent No. 442,982, dated December 16, 1890.

Application filed May 9, 1890. Serial No. 351,174. (Model.)

To all whom it may concern:

Be it known that I, FRANCIS KEIL, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented a certain new and useful Improved Door-Lock, of which the following is a specification.

My invention relates to an improvement in locks in which the spring-latch bolt is provided with a device or wedging-lever set therein, by means of which doors may be tightly closed to prevent rattling, giving at the same time greater security.

This invention is an improvement on the ice-house-door fastener fully described in and upon which I obtained Letters Patent of the United States No. 241,668, dated May 17, 1881, although the invention shown in the specification herein is far more simple and of different construction.

In the accompanying drawings, Figure I represents an inner face view with the face-plate attached, in which figure A represents the lock-case; A', the inner face-plate; B, the latch-bolt; B', the wedging-lever; C, the hub and spindle socket, and I the key-hole. Fig. II represents a face view of the lock with the inner face-plate A' removed, showing the mechanism and disclosing to the view the combination ready to operate. Fig. III is a cross-section on the line *xx*, showing the hub C, the bolt B, and the wedging-lever B' when the wedging-lever is not in play. Fig. IV represents a cross-section on the line *xx*, showing the wedging-lever set. Fig. V represents the form of the bolt B, having the arm *s* and stud *e* and recess along its face.

Letter D is a spring, one end of which is set in the bar G and the other resting under lug *b'*, and by means of which the bolt B is constantly thrown out.

Letter *e* is a stud provided in the recessed part of the bolt B, in which the lever B' rests, and is provided for the purpose of keeping the lever B' in place.

F represents the arm of the hub C, by means of which the bolt is thrown backward by reason of the arm F coming in contact with a lug provided for that purpose at the end of the arm *s* of the bolt B.

F' represents a cam-shaped projection on the hub C, having an inclined face which sets

in such a manner that when the door is closed and the hub C is turned in the opposite direction in which it is turned to throw back the bolt, it bears on the end of the wedging-lever B' and forces the nose of the same beyond the line of the face of the bolt and tightly forces the door against the door-jamb.

G represents the locking-bar, by means of which the tumbler H is kept in position when it is desired to lock the bolt B.

O represents a stop on the lock-case and prevents the hub from turning completely.

The stud *a'* is part of the case upon which the tumbler and locking-bar hinge. *b'* *b*² *b*³ are studs provided in the bolt B, for the purposes shown.

When in operation, the usual square-spindled handle is placed in the socket of the hub C to operate the same.

When the lock is only to be used as spring-lock, by turning the spindle in one direction it draws back the bolt B, disengaging it from the ordinary keeper (not shown) by reason of the engagement of the arm F of the hub C with the stud S of the bolt B. When desired, the door can be closely shut by simply turning the hub C in the other direction. The inclined face of the shoulder F' of the hub C, coming in contact with the end of the wedging-lever B', (which lies in the recess of the bolt B, the wedging-lever being provided with a perforation to receive the stud *e*, which keeps the lever-wedge B' in position,) it forces the nose of the wedging-lever B outward against the keeper. To lock the bolt B in position it is simply necessary to throw the tumbler H forward by means of the key.

It is not absolutely necessary to have the key-locking device attached, since the device will operate without it.

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

1. The combination, in a latch-lock, of the case A, having plate A', the stud *a'*, stop *o*, with the bolt B, having a recess and provided with means to retain the lever B', and the arm S, and studs *b'*, *b*², and *b*³, with spring D, said spring being fixed at one end in the locking-bar G, which operates on the stud A', the other end of the spring D operating the bolt B by engagement with the stud *b'*, the

hub C, having a socket to receive a spindle, and the arm F and the cam-shaped inclined-faced projection F', and the wedging-lever B', all set and operated substantially as shown.

- 5 2. The combination, in a latch-lock, of the case A, having plate A', the stud a' , stop o , with the bolt B, having a recess and provided with means to retain the lever B', and the arm S, and studs b' b^2 b^3 , with spring D,
10 said spring being fixed at one end in the locking-bar G, which operates on the stud A', the other end of the spring D operating the bolt B by engagement with the stud b' , the hub

C, having a socket to receive a spindle, and the arm F and the cam-shaped inclined-face 15 projection F', and the wedging-lever B', in combination with the locking-bar G and the tumbler H, substantially as shown and described.

Signed at New York, in the county of New 20 York and State of New York, this 13th day of March, A. D. 1890.

FRANCIS KEIL.

Witnesses:

EDWIN C. DONNELL,
RICHARD SIPES.