

(Model.)

J. FORBES & H. M. WILLISTON.

SEAL LOCK.

No. 273,267.

Patented Mar. 6, 1883.

Fig. 1.

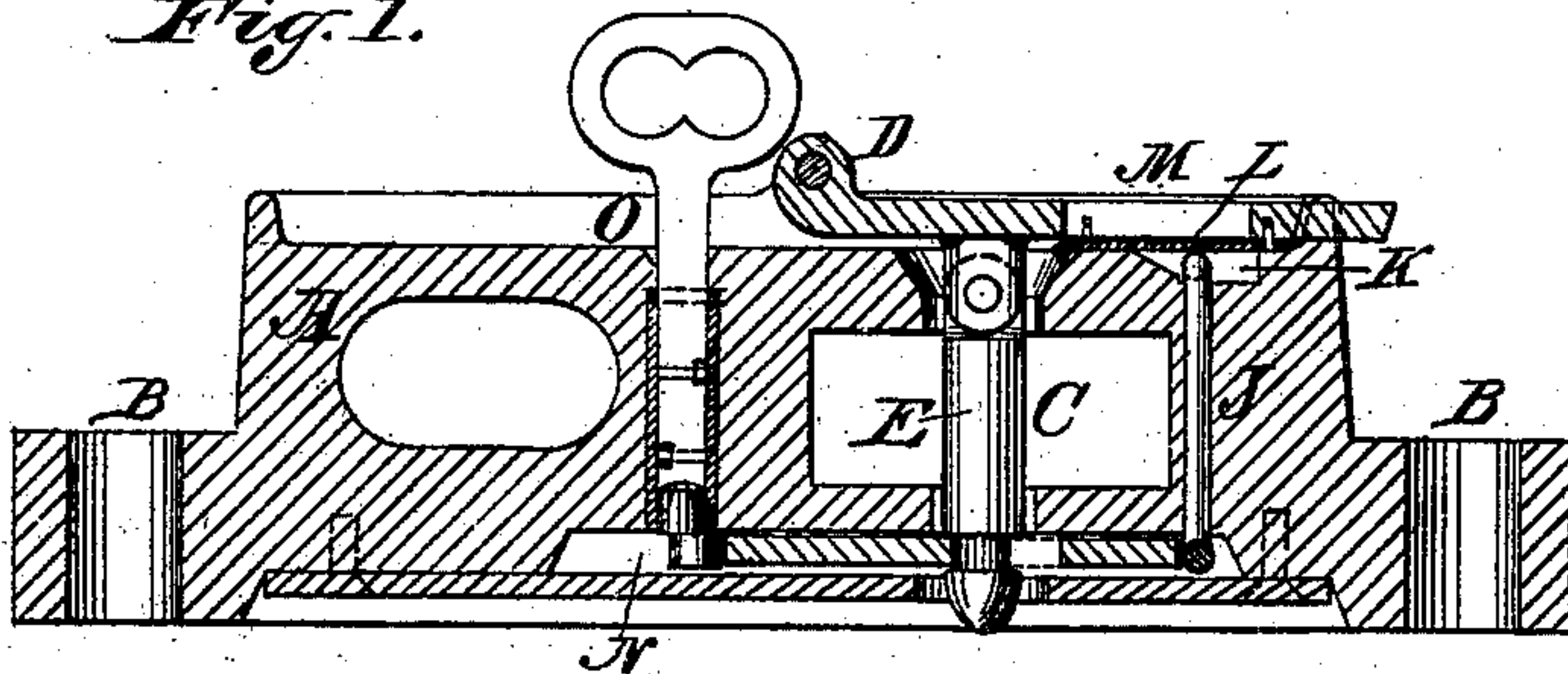


Fig. 2.

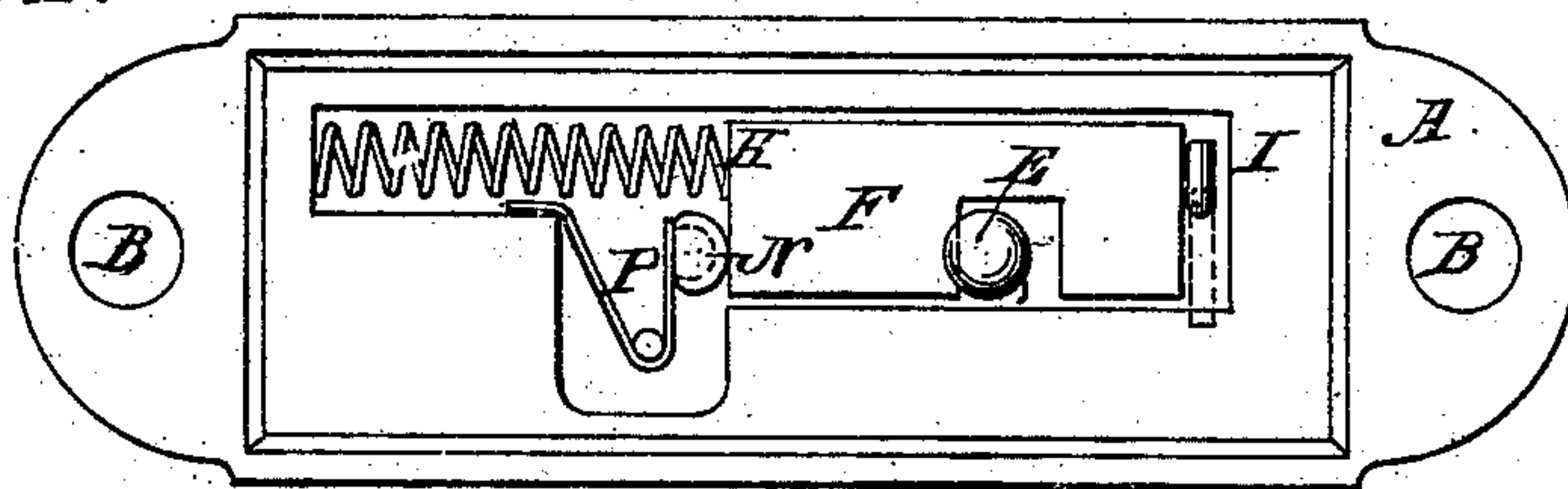


Fig. 3.

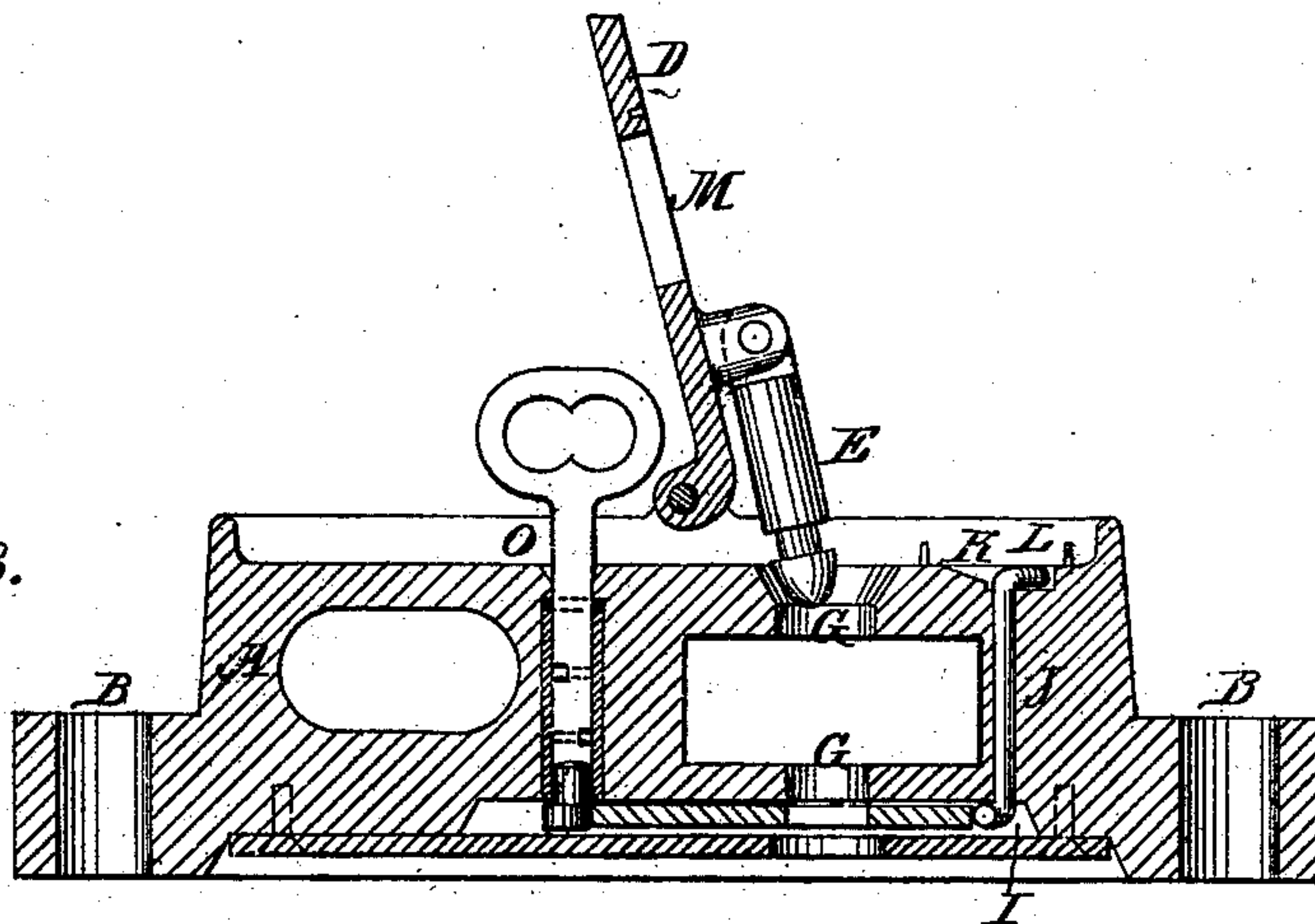
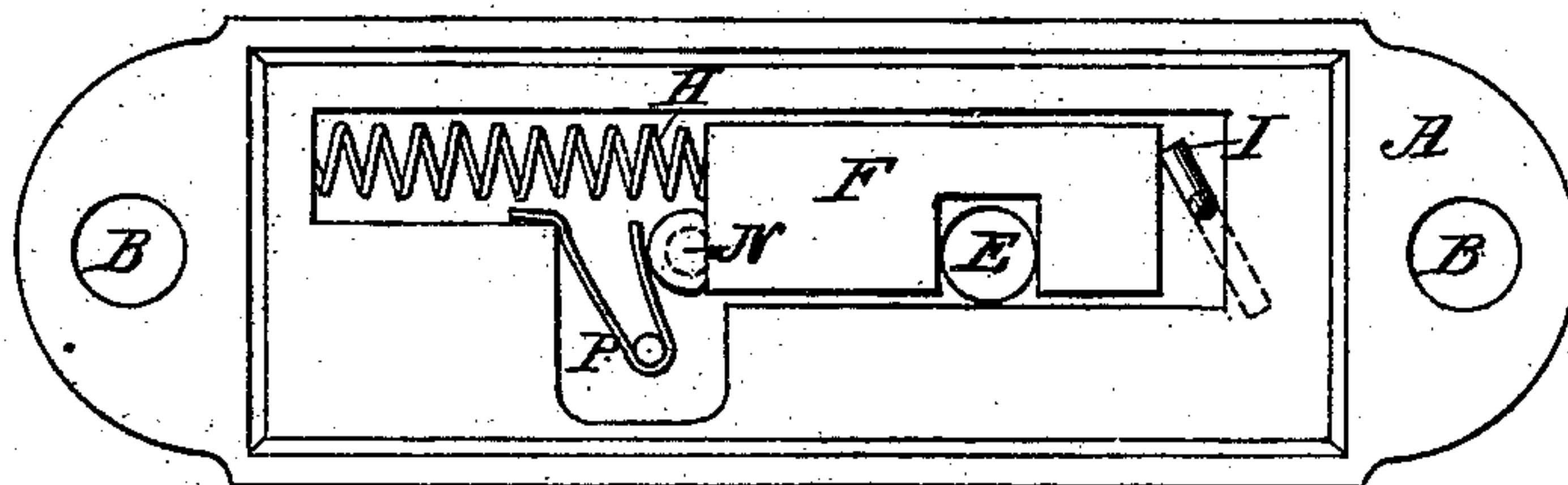


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN FORBES AND HENRY M. WILLISTON, OF HALIFAX, NOVA SCOTIA,
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SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 273,267, dated March 6, 1883.

Application filed June 8, 1882. (Model.)

To all whom it may concern:

Be it known that we, JOHN FORBES and HENRY MIGNOWITZ WILLISTON, both of Halifax, in the county of Halifax and Province of Nova Scotia, have invented certain new and useful Improvements in Freight-Car-Door Locks, of which the following is a full, clear, and exact description.

The principal object of this invention is to lock the door of a freight-car by means of the ordinary hasp and a locking substitute for the staple. The locking device is permanently bolted to the car in the place of the usual staple, and has a sealing and locking combination whereby the seal must be broken to unlock; but the breaking of the seal will not permit of the opening of the car without the application of the key, and by it so operating upon the lock mechanism as to permit the movement of a locking-bolt out of contact with a stud or cam engaging with the said sliding bolt, and which locking-bolt can only be operated by a bent arm underlying the seal.

The invention principally consists of a combined seal and lock, and is constructed of a casing inclosing the lock mechanism, having a recess for a hasp, a plate hinged to said casing, carrying an articulated locking-pin passing through the hasp and holes in the recess into the interior recess of the lock-casing, the free end of said pin engaging with a spring locking-bolt, and such bolt in turn engaging with a detector-arm, with a bent extremity in a sealing-recess in the face of the casing. This bolt is operated by a key and lock mechanism within the interior of the casing to fix the movement of the bolt after engagement with the locking-pin, whereby, after sealing and locking the bolt, the lock cannot be opened without using the key and afterward breaking the seal covering the bent extremity of the arm, whereby a crank movement removes the bolt from the locking-pin and releases their locking connection.

Figure 1 is a longitudinal section, showing the lock closed. Fig. 2 is a plan view of the interior, showing the position of the locking devices closed. Fig. 3 is a sectional view of the lock open; and Fig. 4, a plan view of the in-

terior, showing the position of the locking devices opened.

A is the cast-metal frame or casing of the lock, which is secured to the car by bolts passing through holes B. This frame is made with a recess or opening; C, into which the usual hasp attached to a car-door is laid to be locked.

D is a plate hinged to the frame, and carries an articulated locking pin or bolt, E, its free end provided with a locking-groove, formed by a button-head to engage with a sliding locking-bolt, F, having a free longitudinal motion within the interior of the casing, which also incloses the locking mechanism. When the plate D is closed the locking-pin E will pass through the holes G in the opening C, and through the hasp, the end of the pin E, being suitably inclined, will force back the locking-bolt F, which will afterward, by action of spring H, close into the groove of the locking-pin E. Against one end of the bolt F reacts a bent arm, I, which is part of rod J, which passes vertically through the casing A to the face of the lock, terminating in a recess, K, in which the upper end of this rod J is bent to a right angle, L, so as to lie within the recess and be confined by sealing in such recess. The lock cannot be opened without breaking the seal and turning the upper bent end, L, of the rod J sufficient to move its lower bent end, I, in order to cause such bent end I to push the longitudinally-sliding bolt F out of contact with the groove in the free end of the locking-pin E.

The seal, composed of a piece of paper properly identified by letters or numbers, or both, to represent a railroad-station, is placed within the recess K over and covering the upper bent end of the rod J, and secured therein by the hinged plate D, and through the opening M of which plate D such paper is viewed.

In order to prevent the movement of the arm L when the seal becomes unlawfully broken, the bolt F is held in a position fixed to lock the locking-pin E by a half-moon-shaped stud or revolving cam, N, turning in a hole in body of lock. When in the locked position its round side bears against and prevents the movement of the sliding bolt F. The stud or cam N is

operated to or from the sliding locking-bolt F by means of a key entering the key-hole O in the casing A and the intervention of any suitable system of tumblers or other lock mechanism.

P is a locking-spring to the cam N, of the usual construction.

We claim as our invention—

1. The combination, with the lock-casing A, of a locking pin or bolt, E, to secure the hasp of a door, a sliding locking-bolt, F, a rod to be sealed after fastening has been effected, and a key-operating lock mechanism to prevent the movement of the rod when either sealed or unsealed, substantially as described.

2. A lock for car-doors or other purposes, consisting of casing A, having opening C, plate D, hinged thereto and carrying an articulated locking-pin, E, passing through holes in the casing A into the interior of the casing, said pin engaging therein with sliding locking-bolt F, a rod, J, which passes through the cas-

ing, having its lower end, I, bent to a right angle, and its upper end, L, bent to a similar angle, resting in a sealing-recess, K, in the face of the casing, and a locking stud or cam, N, operated by a key to confine the bolt F from movement after sealing the bent end L of rod J, substantially as described.

3. In a staple-lock for car-doors or other purposes, the rod J, operating against the sliding locking-bolt F through the bent arm I, and having at its other end a bent arm, L, within a sealing-recess, K, in the face of the lock, and a hinged plate, D, covering such recess, and containing an opening for viewing a seal to be placed within the recess, substantially as described.

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