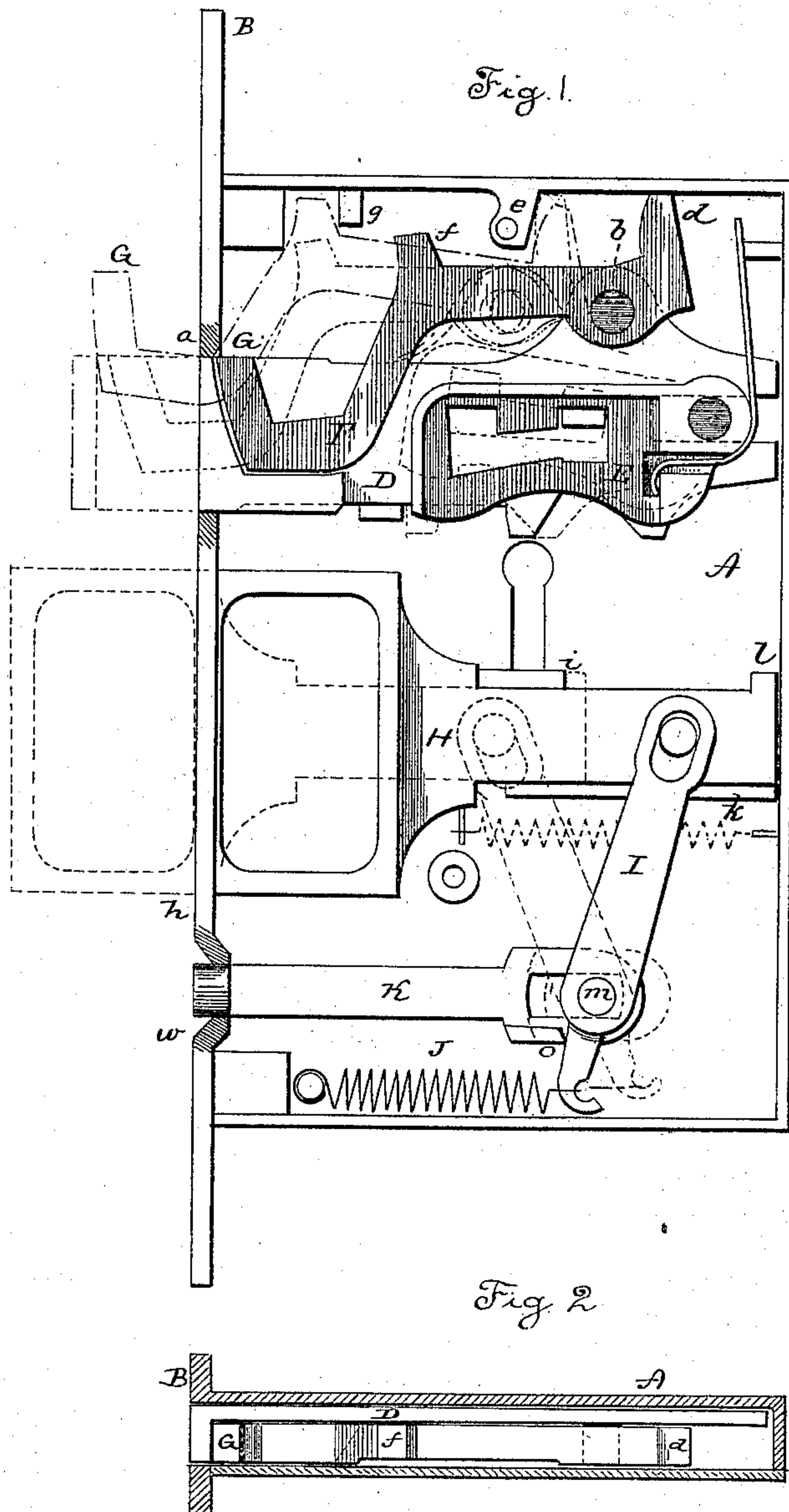


(Model.)

W. E. SPARKS.
SLIDING DOOR LOCK.

No. 331,094.

Patented Nov. 24, 1885.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM E. SPARKS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO
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SLIDING-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 331,094, dated November 24, 1885.

Application filed August 17, 1885. Serial No. 174,584. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SPARKS, of New Haven, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Sliding-Door Locks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the
10 same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the case with the plate removed, the face-plate in partial section; Fig. 2, a transverse section, looking down
15 upon the lock-bolt.

This invention relates to an improvement in sliding-door locks, the object being to construct a sliding-door lock having substantially the same movement as a swinging-door lock;
20 and it consists in the construction as hereinafter described, and particularly specified in the claim.

A is the case, constructed in the usual manner and with the face-plate B.

25 The keeper (not shown) is constructed in the same manner as for swinging-door locks.

D is the principal bolt, arranged to move longitudinally in the case and through an opening, *a*, in the face-plate, and adapted to
30 be moved by a key and held by one or more tumblers, E, in the usual manner.

F is the auxiliary bolt, hung upon a pivot, *b*, on the principal bolt, and preferably so as to swing in a vertical plane, and having a
35 hook-shaped nose, G, adapted to set into a recess in the nose of the principal bolt directly in rear of its face, and so that the auxiliary bolt will move with the principal bolt. In the locking movement the auxiliary bolt is
40 carried with the principal bolt until the hook G has entered the keeper. Then an arm or shoulder, *d*, on the auxiliary bolt in rear of the pivot will strike against a stop, *e*, in the case. Then, on the completion of the move-
45 ment of the bolts, the stop will force the hook to turn upward, as shown in broken lines, Fig. 1. On the withdrawal or unlocking of the bolts a second arm or shoulder, *f*, on the auxiliary bolt, forward of the pivot,

strikes a stop, *g*, in the case, thereby causing 50 the hook G to turn down into the recess in the principal bolt before it is withdrawn from the keeper.

H is a pull arranged to be moved longitudinally in the case through an opening, *h*, in the 55 face-plate, preferably loop-shaped, and held in place by guides *i* and *k*. A shoulder, *l*, on the tail, is arranged to strike against the guide *i*, to prevent the pull from being entirely withdrawn from the case. 60

I is a lever hung upon a pivot, *m*, its one arm connected to the pull H, its other arm in connection with a spring, J, below the pivot *m*, the tendency of which is to force the pull inward, but yield to permit the pull to be 65 forced from the case.

K is a finger-piece arranged to move longitudinally in the case, one end extending through an opening, *w*, on the face-plate, the said opening being countersunk to facilitate 70 the movement of the finger-piece, its inner end provided with a shoulder, *o*, to strike against the lever I below the pivot *m*, so that pressing the finger-piece K inward throws the pull H outward, as shown in broken lines, Fig. 75 1. When released, the reaction of the spring J draws the pull into the case.

One of the advantages of this construction of locks is that while it provides a lock perfectly secure the tumblers, case, face-plate, 80 and keeper are substantially the same as for locks for swinging doors.

I claim—

The combination, in a sliding-door lock, of the principal bolt D, adapted to be moved in 85 the usual manner, its nose recessed on one side in rear of its face, and the auxiliary bolt F, pivoted to the principal bolt D, and adapted to move longitudinally with it, and constructed with the hook G, adapted to set into 90 the recess in the principal bolt, and with shoulders *d* *f*, adapted to strike against stops in the case, substantially as and for the purpose described.

WILLIAM E. SPARKS.

Witnesses:

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