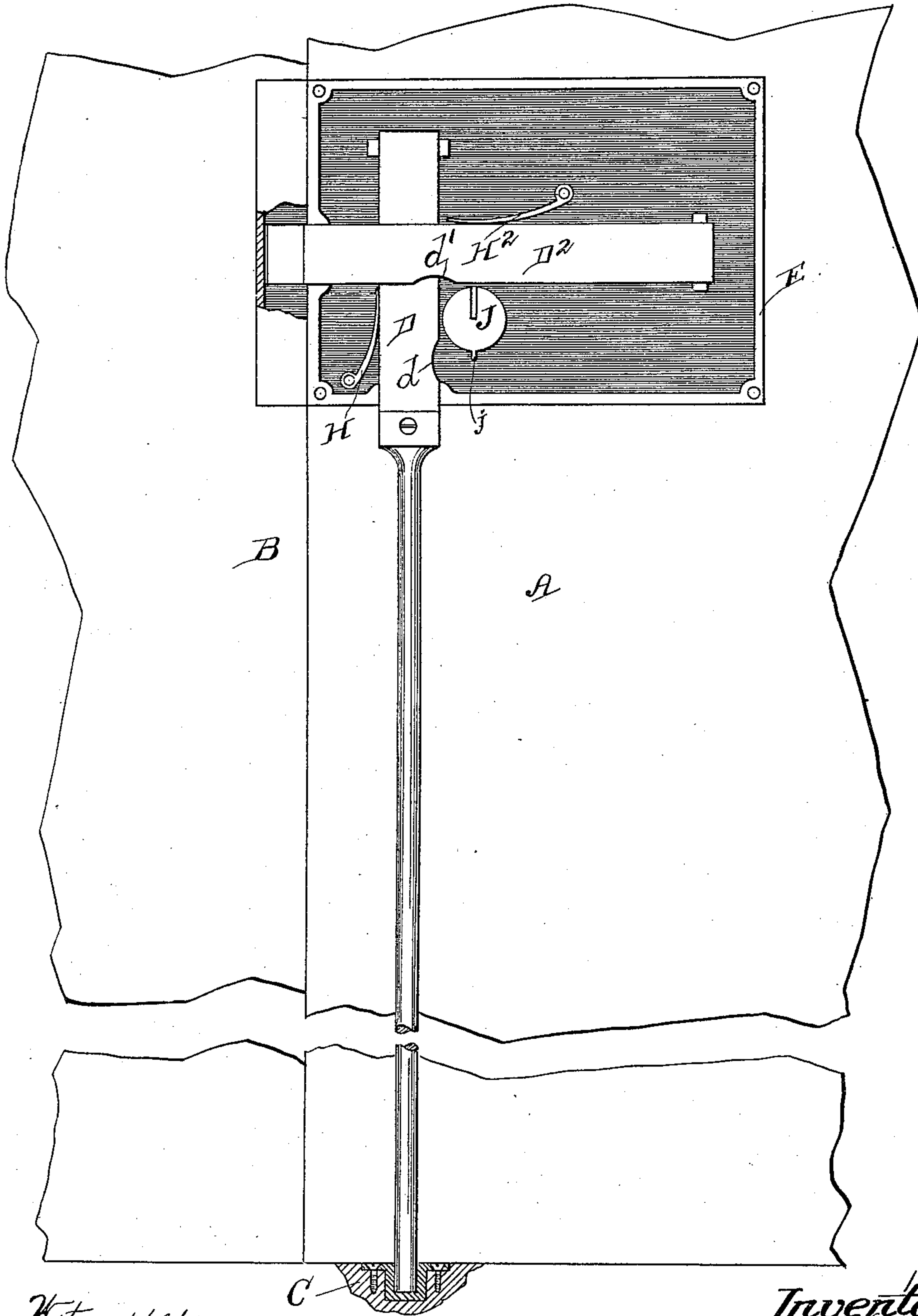


(No Model.)

J. HIGBEE.
LOCK.

No. 449,677.

Patented Apr. 7, 1891.



Witnesses
W. P. Smith.
E. A. Davis.

Inventor,
Joseph Higbee
by Thomas G. Owing
his Atty

UNITED STATES PATENT OFFICE.

JOSEPH HIGBEE, OF BLOOMFIELD, IOWA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 449,677, dated April 7, 1891.

Application filed August 18, 1890. Serial No. 362,346. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HIGBEE, a citizen of the United States, residing at Bloomfield, in the county of Davis and State of Iowa, have invented a new and useful Improvement in Locks, of which the following is a specification.

My invention has relation to that class of doors which it is found necessary or desirable to secure and lock in two or more places.

My object is to provide a lock which shall be adapted for actuating two or more bolts from one and the same point by one and the same movement of one and the same key.

My invention consists in an engaging-lug, which is caused to travel in a circular path by means of the key, which lug is adapted to impinge, when two bolts are employed, against a concave face formed on one bolt, said bolt being acted upon by yielding pressure, and in its further travel to impinge against a like concave face formed on the other bolt, which also has bearing against it yielding pressure.

My invention consists further in certain details of construction and arrangement of parts hereinafter to be more fully described, reference being had to the accompanying drawing, in which the figure is a side view of a portion of a door and the doorway jamb and sill, the jamb and sill being broken away, the improved lock being shown in position as in use, and the face-plate being removed to show the interior.

A indicates the portion of door, B the portion of doorway-jamb, and C the sill portion.

D D² are bolts arranged, respectively, approximately in a vertical and horizontal plane and at right angles to each other, a portion of the length of each of said bolts being within the boxing E of the lock.

Secured to the boxing of the lock on the interior thereof at the desired points are the springs H H², the spring H bearing against and upon the bolt D and the spring H² bearing against and upon the bolt D².

J is a tumbler adapted to admit a key, which may be of any desired kind, said tumbler having a projecting lug *j* fixed on its perimeter.

The bolts D D² are each concave at *d d'* on their edges.

When the key is inserted into the slot of the tumbler J, the latter being in the position shown in the figure the bolts being in a locked position and turned from the right to left, the lug *j* of the tumbler J engages within the concave face *d* of the bolt D, and as the spring H bears against the said bolt the lug in its further travel raises the bolt in a vertical plane and releases it from engagement with the sill. In the further travel of the tumbler J, carrying its lug *j*, the latter engages within the concave *d'* of the horizontal bolt D², and the spring H², bearing upon the said bolt D², causes the latter to be moved in a horizontal plane and to be withdrawn from the jam. By this means the parts are unlocked. When desired to lock, the key is turned in the reverse direction, when the same operation takes place.

I do not desire to be understood as confining myself to the number of bolts shown, as a bolt could be arranged so as to be in a position to be operated upon and lock the door at top.

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

1. In a lock, the combination, with a box or case having bearings for bolts that are in a crossed position and two sliding bolts, each having a concave in one of its edges or faces, and a tumbler having a lug adapted to enter the concaves of said bolts, in the manner set forth, for the purposes stated.

2. The combination, in a lock, of a plurality of bolts arranged approximately at right angles to one another, said bolts being adapted to engage the door jamb, sill, or top piece of a door, respectively, a tumbler with which the key of the lock engages to rotate the same, a lug fixed to and projected from said tumbler, adapted to engage, respectively, concave faces or edges on each of the bolts in the continued rotation of the tumbler, and fixed springs which bear upon each of said bolts, as set forth.

JOSEPH HIGBEE.

Witnesses:

M. B. HORN,
JOHN B. HIGBEE.