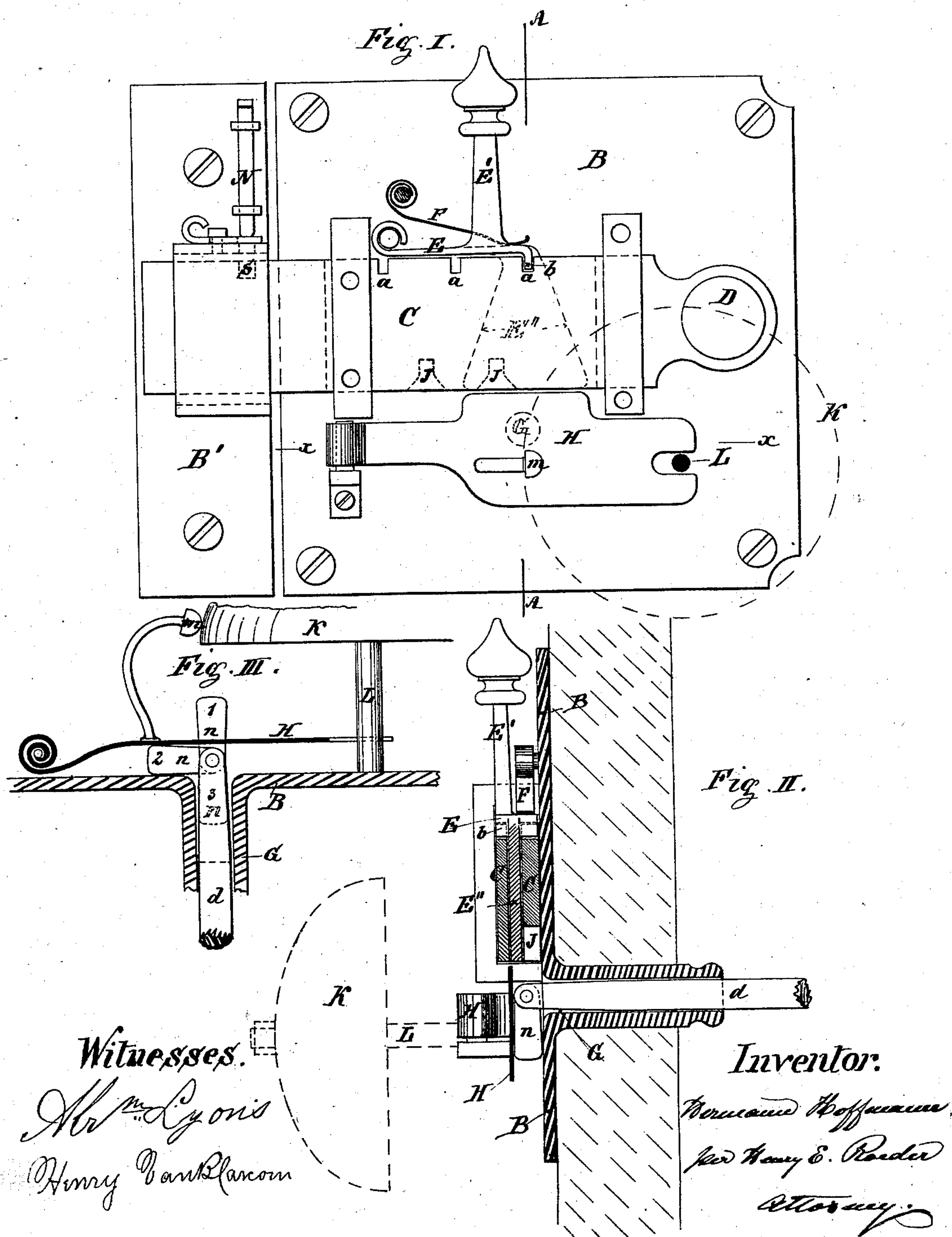


(Model.)

H. HOFFMANN.
Alarm Lock.

No. 232,497.

Patented Sept. 21, 1880.



UNITED STATES PATENT OFFICE.

HERMANN HOFFMANN, OF NEW YORK, N. Y.

ALARM-LOCK.

SPECIFICATION forming part of Letters Patent No. 232,497, dated September 21, 1880.

Application filed May 28, 1880. (Model.)

To all whom it may concern:

Be it known that I, HERMANN HOFFMANN, of New York, in the State of New York, have invented a new and useful Improvement in Locks, of which the following is a specification.

In the accompanying drawings, Figure I represents a front view of my improved lock. Fig. II is a cross-section at line A of Fig. I; and Fig. III shows a longitudinal section at line *xx* of Fig. I, and also the key.

B is the back plate of the lock, through which the same is attached to the door. Upon this plate the bolt C is arranged, which, if the lock is to be used on a door, is provided with a knob or projection, D, to operate the same by hand. B' is the staple-plate, into which the bolt is moved and attached to the door-frame in the usual manner.

Above the bolt C a tumbler-lever, E, is arranged, pivoted at one end and acted upon by a suitable spring, F. This tumbler-lever E has the usual projection, *b*, which, in either position, locked or unlocked, falls into one of the notches *a*, provided on the top of the bolt. A projecting arm, E', is attached to this tumbler-lever to operate the same by hand. On the under side of this lever E the tumbler-plate E'' is attached, fitting into a recess made in the bolt C and extending to the lower surface of the bolt C, and which is acted upon by the key so as to lift the projection *b* from the notch in the bolt to allow the key to act upon the bolt to move it either way.

J J are the usual notches on the bottom of the bolt, into which the ward of the key fits to operate the bolt.

G is the key-hole, made circular and of a size for the stem or body *d* of the key to pass through. This key-hole is covered by a spring, H, which is made at the key-hole of such a width as to cover nearly the whole length of the ward of the key in any position.

L is a suitable bolt, to which a bell, K, is attached, operated by a suitable hammer, *m*, attached to the spring H, to give an alarm when the spring is moved and after the same recoils. The key is represented in Fig. III.

The ward *n* is hinged to the stem or body

d and turns freely on its joint-pin. This ward is turned to lie in a corresponding slot in the stem *d*, as shown at 3 in dotted lines, Fig. III, when the key is carried in the pocket.

When the key is to be used for operating the bolt the ward *n* is placed in the position as shown at 1, forming a continuation of the stem *d*, in which position the same can be passed through the circular key-hole G, where the ward comes in contact with the spring H, to which sufficient motion must be given to allow the whole length of the ward *n* to be forced inside of the back-plate B. When the whole length of the ward has been passed through the key-hole a slight turning of the key will cause the action of the spring H against the extreme end of the ward to turn the same until the ward comes at right angle to the body or stem *d*, as shown at 2, Fig. III, and is retained in that position between the plate B and spring H, as shown in Fig. III, ready to operate upon the bolt C. The recoil of the spring H causes the hammer *m* to strike the bell K, and thus to give the desired alarm.

N is a pin sliding on the staple-plate B', capable of being moved into a suitable recess, S, in the bolt C, for the purpose of locking the bolt at the inside whenever desired.

I do not claim a hinged bit in the end of a key; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a lock provided with a suitable bolt and tumbler, the spring H, covering the circular key-hole G at the inside of the lock, and provided with a hammer, *m*, in combination with a bell, K, substantially as set forth.

2. In a bolt-lock, a circular key-hole, G, covered on the inside with a spring, H, provided with a hammer, *m*, in combination with a key having the ward *n* hinged at the end of the stem *d*, arranged to operate substantially in the manner and for the purpose herein described.

HERMANN HOFFMANN.

Witnesses:

HENRY E. ROEDER,
HENRY VAN BLARCOM.