

W. L. Inlay,

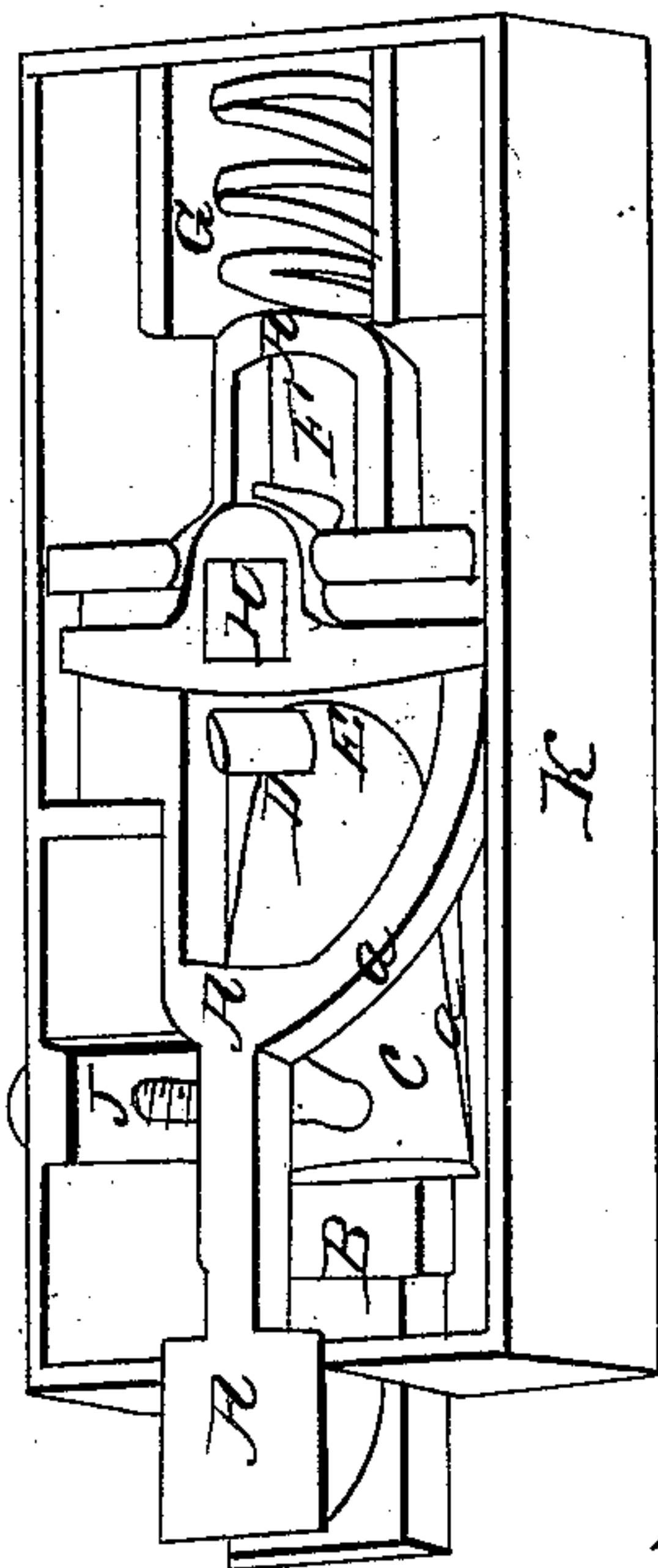
Latch,

No 73,334,

Patented Jan. 14, 1868.



Fig. 1.



Witnesses.

Chas J Inlay
W Inlay

Inventor.

William L Inlay

United States Patent Office.

WILLIAM L. IMLAY, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 73,334, dated January 14, 1868.

IMPROVEMENT IN LOCKING-KNOB LATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM L. IMLAY, of the city and county of Philadelphia, Pennsylvania, have invented an Improved Lock; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings and to the letters thereon.

My object is to so connect the knob-latch and the key-bolt that they shall act together in securing the door to which the lock is applied, and to give security to the inmates of the house or room, when locked inside, as well as safety at all times. This I accomplish by several devices, which are—

First. So constructing and arranging the key-bolt that while it has the usual spring-tumbler, and is thus ordinarily secure, a part or portion of it shall play in a slot in the knob-latch, in such a manner that when the key-bolt locks the door it also fastens the knob-latch, and makes that immovable, or also a fast-latch.

Second. From some convenient part of the case of the lock, I insert a rod, threaded with a screw, in such a manner that the screw-thread works in that part of the case through which it is inserted, as in a nut, and the inner end or part of the rod shall, at pleasure, be turned against the tumbler of the lock, and prevent its being lifted by the key of the lock or other means, the effect of which is that, the tumbler being immovable, the key-bolt cannot be turned, and the knob-latch being dependent on the key-bolt, also cannot be turned, but both be fast as long as the screw-rod is in the locking position.

Third. I so construct and arrange both key-bolt and knob-latch, usually, so that they shall be one at the side of the other, instead of being separated, as usual, by a space apart, and for the following purpose, that the key may turn both. For this I make a deep slot in the centre of the key, and in it the tumbler plays, being raised and falling in and through the slot; and the key-bolt and knob-latch are turned on each side of the slot, the key-bolt each way, forwards and backwards, and the knob-latch backwards only, as its spring throws it forward. This is seen in the drawings, which are—

Figure 1, a view of my lock, looking down into it, and

Figure 2 a side elevation of the bolt and latch over each other, showing their construction and operation.

In fig. 1, A A A are the knob-latch, and B is the key-bolt, and C is the tumbler that controls the motion of the key-bolt, D being the hinge on which it turns, and E its spring; and F is a projection of the key-bolt upwards and into a slot, in the innermost end of the knob-latch. Its action is that, when the key-bolt is unlocked, the knob-latch, by its slot, plays freely about this projection, and thus it has no effect on the knob-latch; but, when the key-bolt is thrust out of the lock, as in the figure, then the projection F comes in contact with the other end of the slot in the knob-latch, and the consequence is the knob-latch is locked fast. At G is the spring that moves the knob-latch A, and H is the knob cross-bar for moving the knob-latch. At I is seen the slot for the tumbler-knob of the key-bolt. At J is seen a set-screw rod, with a thumb-and-finger head outside of the lock, for turning it against and from the tumbler C of the key-bolt. The action of this set-screw rod is that, when a person on the inside of a room turns the set-screw rod down against the tumbler, that tumbler is locked, and the key that belongs to the lock, nor any other key, cannot turn it. This renders the bolt B burglar-proof, and, by the projection F the knob-latch is also made fast and burglar-proof. When the set-screw rod is turned back from the tumbler, the lock can be opened, by its key and knob, from either side of the door. In fig. 2, the same letters indicate the same parts; but at a a a will be noticed the bearing-surfaces of the key of the lock, on the key-bolt, the tumbler, and the knob-latch.

The other parts and uses of my lock are apparent to those skilled in the art to which it appertains.

Claims.

1. I claim constructing the key-bolt B with a projection, F, for the purpose of locking and unlocking the knob-latch A, by means of its described action in the slot of the knob-latch, as set forth.
2. The constructing and arranging of the knob-latch A with the surface *a*, (for the action of the key,) and the slot in its inmost end, for the purposes of giving the knob-latch a dead-latch action, and for the purpose of conjoined locking with the key-bolt B, thus making the latch A subserve any one or all of the three uses, as follows: of a simple knob-latch, a dead or night-latch, and an additional security to the key-bolt B, as set forth.

WILLIAM L. IMLAY.

Witnesses:

CHAS. G. IMLAY,

N. IMLAY.