

(No Model.)

A. ARENS.
LOCK.

No. 471,594.

Patented Mar. 29, 1892.

Fig. 1.

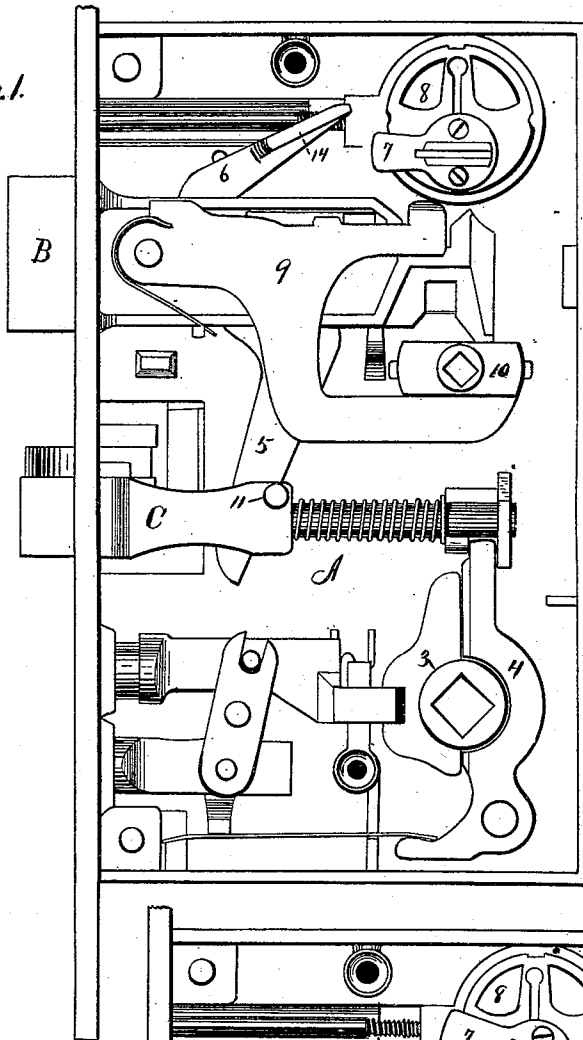
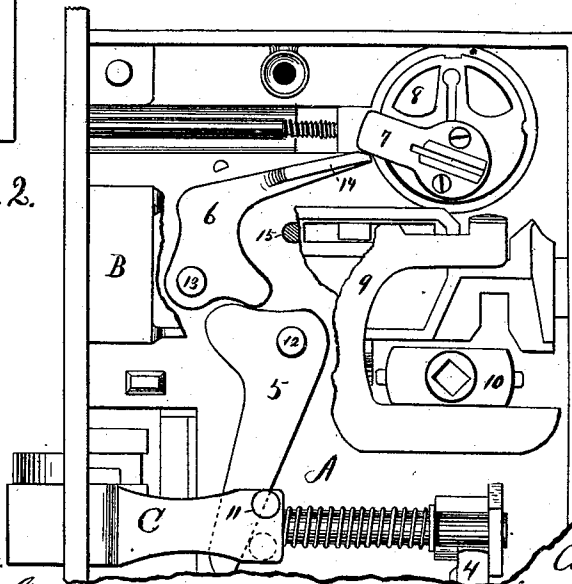


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

AUGUST ARENS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
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LOCK.

SPECIFICATION forming part of Letters Patent No. 471,594, dated March 29, 1892.

Application filed November 23, 1891. Serial No. 412,750. (No model.)

To all whom it may concern:

Be it known that I, AUGUST ARENS, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Night-Latches, of which the following is a specification.

My invention relates to improvements in night-latches; and the objects of my improvement are simplicity and cheapness of construction and utility and efficiency of the latch.

In the accompanying drawings, Figure 1 is a front elevation of my latch with the cap-plate removed, and Fig. 2 is a like view of a portion of the same with the lock-bolt in a different position, portions of the same being broken away and partly in section.

A designates the case, B the lock-bolt, and C the latch-bolt. The latch-bolt is operated by the hub 3 of the knob-spindle and lever 4 in the ordinary manner and also through the levers 5 6 and cam 7 of the cylinder or pin tumbler-lock 8, as will be hereinafter more fully described. The lock-bolt is provided with a spring dog or tumbler 9, and may be thrown by the cam 7 of the cylinder-lock 8 acting upon the talons at its upper edge or by the hub 10 acting on the talons at its lower edge, said hub being provided with a knob spindle or thumb-turn for use on the inside of the door only. On the rear side of the lock-bolt there is a lug 15. (Shown in section in Fig. 2.) The latch-bolt is reversible and is provided with pins or studs 11, one on each side, the rear one of which, as shown in the drawings, is engaged by the long end of the lever 5. Said rear stud is indicated by the broken circle in Fig. 2. Both of the levers 5 and 6 are pivoted on studs cast on or affixed to the back of the case, said studs being designated 12 and 13, respectively. The studs are so short and the bodies of the levers so thin that the lock-bolt can readily be arranged in front of them. The short ends of the levers engage each other, as shown in Fig.

2, while the long end of the lever 6 is widened from front to rear by a wing 14 for being engaged by the cam 7 of the cylinder-lock, that end of the lever being curved toward said cam, as shown. Whenever the lock-bolt is thrown out of the case to lock the door, as shown in Fig. 1, either by the hub 10 or the cam 7, the lug 15 on its rear side engages the lever 6 and forces the wing 14 out of the path of the cam 7, as shown in Fig. 1. In unlocking the door from the outside the cam 7 of the cylinder-lock is first operated to withdraw the lock-bolt, in doing which the lug 15 is withdrawn to permit the lever 6 to fall by gravity into the position shown in Fig. 2, with the wing 14 of said lever in the path of the cam 7. The revolution of the cam 7 is continued after withdrawing the lock-bolt until it strikes the wing 14 of the lever 6, (see Fig. 2,) and the further movement of said cam will depress said lever, force its short end against the short end of the lever 5, thereby moving said lever, the long end of which will engage that one of the pins 11 that is on the rear of the latch-bolt and force said bolt inward for unlatching the door. By my improvement the levers for connecting the cylinder-lock with the latch-bolt are pivoted on fixed pivots at the back of the case, leaving the lock-bolt free to be fitted independently of said levers, whereby the parts are cheaply constructed, are readily assembled, and a convenient and efficient night-latch is produced.

I claim as my invention—

The combination of the case, the levers 5 and 6, pivoted thereon, the lock-bolt, the cam of the cylinder-lock for acting on said lock-bolt and also on the lever 6, and the latch-bolt adapted to be engaged and operated by the lever 5 through the lever 6 and cam 7, substantially as described, and for the purpose specified.

AUGUST ARENS.

Witnesses:

C. A. BLAIR,
G. E. ROOT.