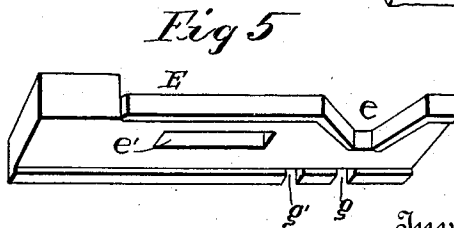
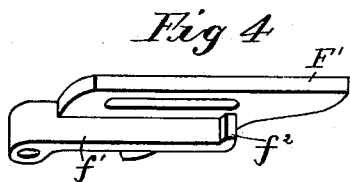
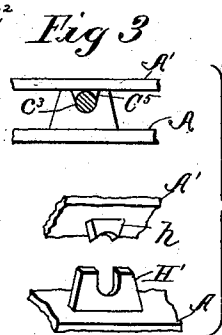
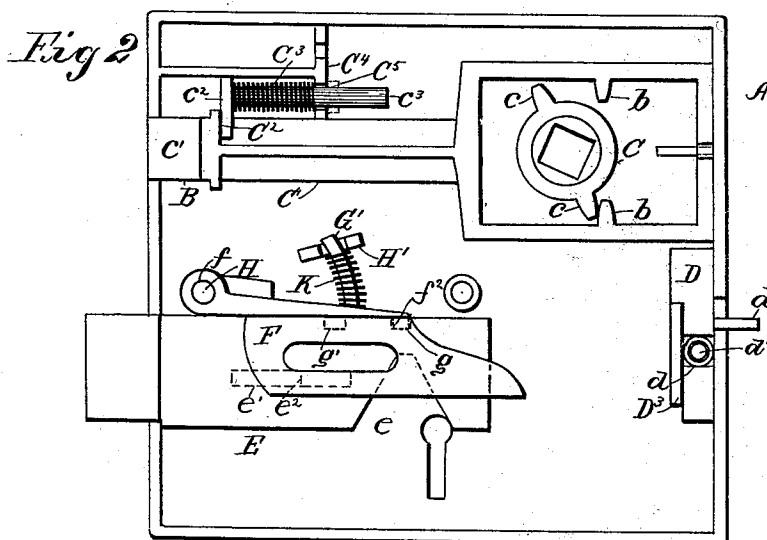
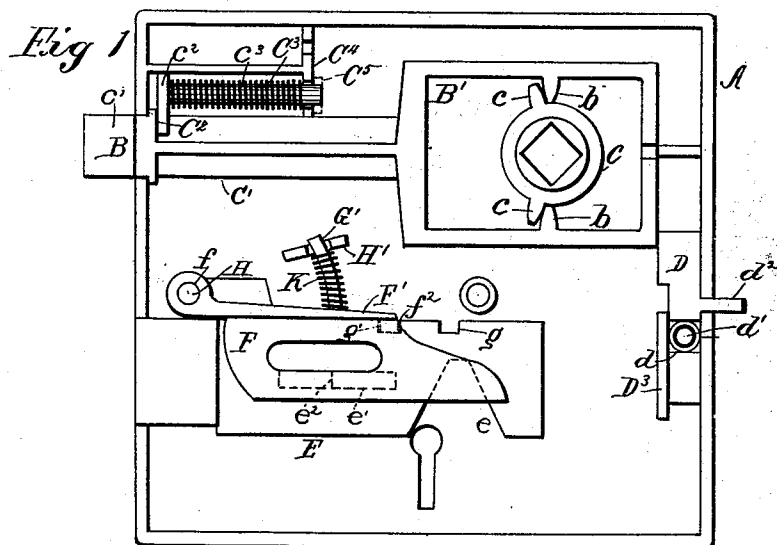


(No Model.)

A. LINSMAYER.
LATCH AND LOCK COMBINED.

No. 508,890.

Patented Nov. 14, 1893.



Witnesses
C. C. Bunting
S. H. Fairall.

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UNITED STATES PATENT OFFICE.

AUGUST LINSMAYER, OF DAYTON, OHIO.

LATCH AND LOCK COMBINED.

SPECIFICATION forming part of Letters Patent No. 508,890, dated November 14, 1893.

Application filed February 21, 1893. Serial No. 463,148. (No model.)

To all whom it may concern:

Be it known that I, AUGUST LINSMAYER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in a Combined Lock and Latch; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in combined locks and latches and it consists in the construction and arrangement of parts hereinafter described and definitely pointed out in the claim.

The aim and purpose of the invention is to provide a simple, inexpensive and accurately operating combined lock and latch for doors adapted to be either inlaid or secured externally. I attain these objects by the construction illustrated in the accompanying drawings wherein like letters of reference indicate corresponding parts and in which—

Figure 1 is an elevation of the device with the side removed, showing the bolt withdrawn and the latch locked out. Fig. 2 is a similar view with the parts in the opposite position. Fig. 3 is a detail view of the stationary abutments and caps. Fig. 4 is a detail perspective view of the dog, and Fig. 5 is a detail view of the bolt.

In the drawings A represents the casing; B the latch having the frame B' on its rear formed with the inwardly extending lugs b.

C is the tumbler having the usual squared central aperture and wings c engaging the lugs b. On the shank C' of the latch is the catch c' forming a shoulder C² against which the grooved head c² of the spring rod C³ abuts as shown in Fig. 1. This rod C³ has a coiled spring c³ thereon which abuts against the head c² at one end and against the fixed saddle C⁴ at the other end. The saddle has a U-shaped groove therein through which the rod C³ passes, and is held in place by the curved cap C⁵ on the lever A' fitting in the groove and over the rod, thereby forming a circular aperture and preventing the end of the spring from getting between the rod and saddle. The head c² loosely engages the shank E' so that

the latch may be removed to reverse the inclination of the catch.

At the center of the casing is a stop block D, having a recess d in which a post d' is formed on which the friction spring is sleeved. This spring engages the cap plate of the lock and holds the block in its adjusted position.

The block D has a thumb piece d² extending out through the usual elongated slot in the end of the casing so that the block may be forced up in between the end of the latch and rear of the casing, to hold the latch against withdrawal. A lug D³ on the casing holds the block in place.

The locking bolt E which I employ is of the reciprocating pattern having the key groove e in its under edge. It is held in its proper position by having an elongated slot e' formed therein in which a fixed lug e² engages limiting and guiding the bolt in its movement. To prevent the forcing back of the bolt by means other than a key, I employ a pivotal dog F differing to analogous devices in its simplicity and adaptability to replacement of the spring with ease. The dog F is formed with an eye f at its forward end the flat shank f' extending out from the under side of the eye and formed with the apron or flange F' on its under edge at one side of the center thereof so as to rest on the side of the bolt, over the key groove. At the end of the shank f' is the tooth f² which is arranged to engage in the notches g, g' of the bolt. To strengthen the shank f' at its connection with the eye a rib f³ is formed thereon.

At a point midway the length of the shank is formed an integral cylindrical pin G' extending upwardly and curved slightly forward in an arc having the pivot pin H, on which is placed the eye, as its center. The outer end of this pin passes through an abutment H' formed on the casing slightly inclined from the horizontal. This abutment has a U-shaped groove in its edge in which the pin works, and a cap h formed on the cover A' and with a curved depression in its end, fits in the top of the groove and thereby forms a circular guide for the pin. A spiral spring K is sleeved on the pin between the abutment and shank f' against which it abuts.

The operation will be readily understood.

The wing of the key lifts the dog up against the tension of the spring carrying the tooth of the dog out of the notch *g* and allowing the bolt to be forced out. The tooth then falls
5 into the notch *g'* and prevents the forcing in of the bolt by pressure on its protruding end.

I am aware that dogs of somewhat similar construction have been employed.

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

In a combined lock and latch, the combination with the casing and a reciprocating bolt, having notches on its upper edge, of a key
15 groove, a projection on the forward end of the casing, a dog pivoted at its forward end on said projection consisting of a shank, a side flange on the side of said shank extend-

ing over the reciprocating bolt and the key groove, a tooth at the rear of said shank arranged to engage the notches in the bolt and a curved cylindrical pin on the top of the shank, an abutment on the casing having a U-shaped groove thereon through which the pin passes, a spiral spring on the pin resting
25 between the shank and abutment and a cap on the casing having an extension entering said groove and resting on the pin, substantially as described.

In testimony whereof I affix my signature in
30 presence of two witnesses.

AUGUST LINSMAYER.

Witnesses:

OTTO. B. FRANK,
JOHN L. H. FRANK.