(No Model.)

G. B. WRIGHT.

COMBINED LATCH AND LOCK.

No. 464,222. Patented Dec. 1, 1891.

Fig. 1.

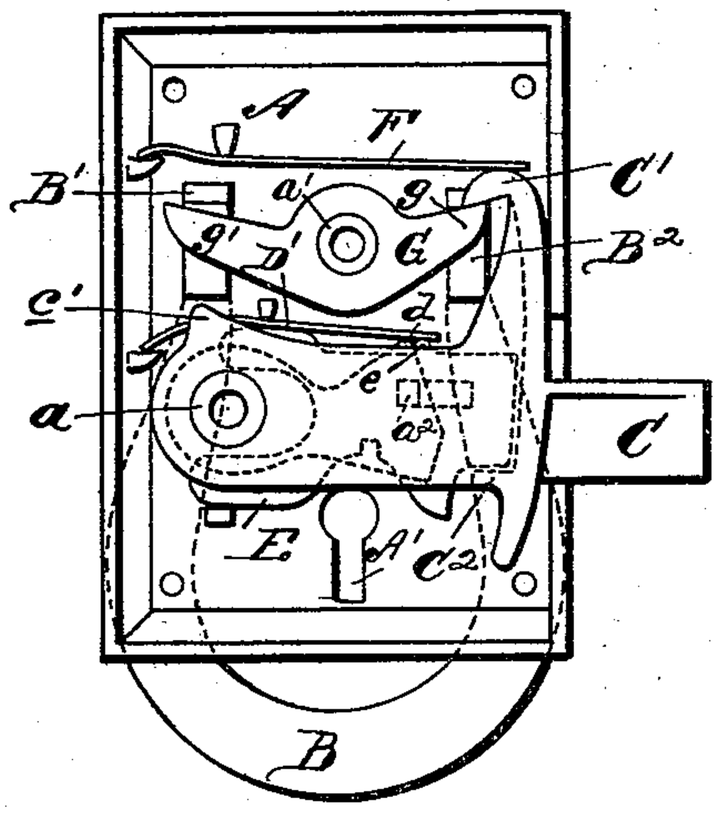


Fig. 2.

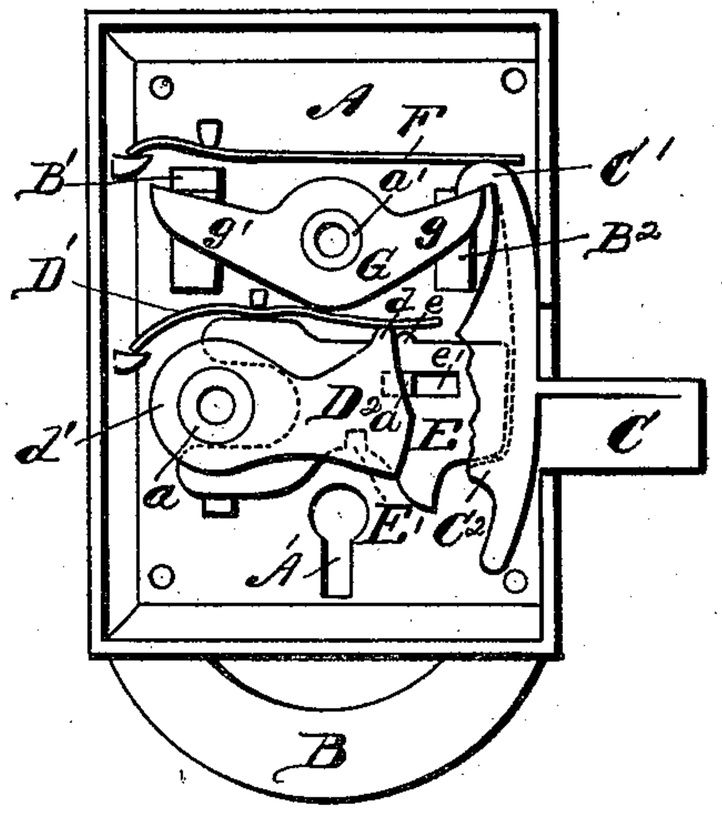


Fig. 3.

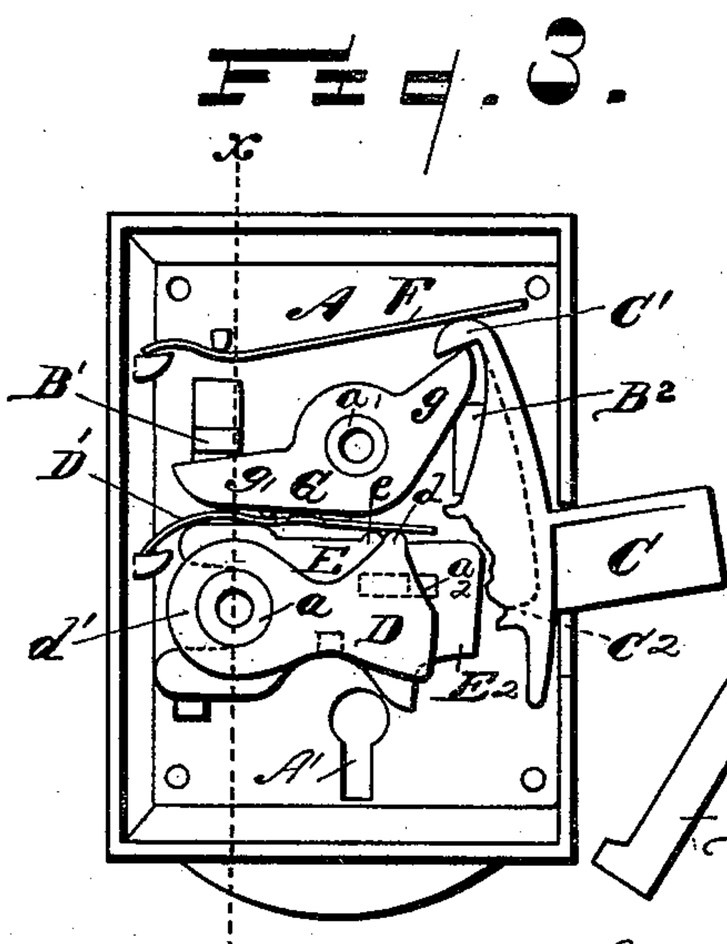


Fig. 4.

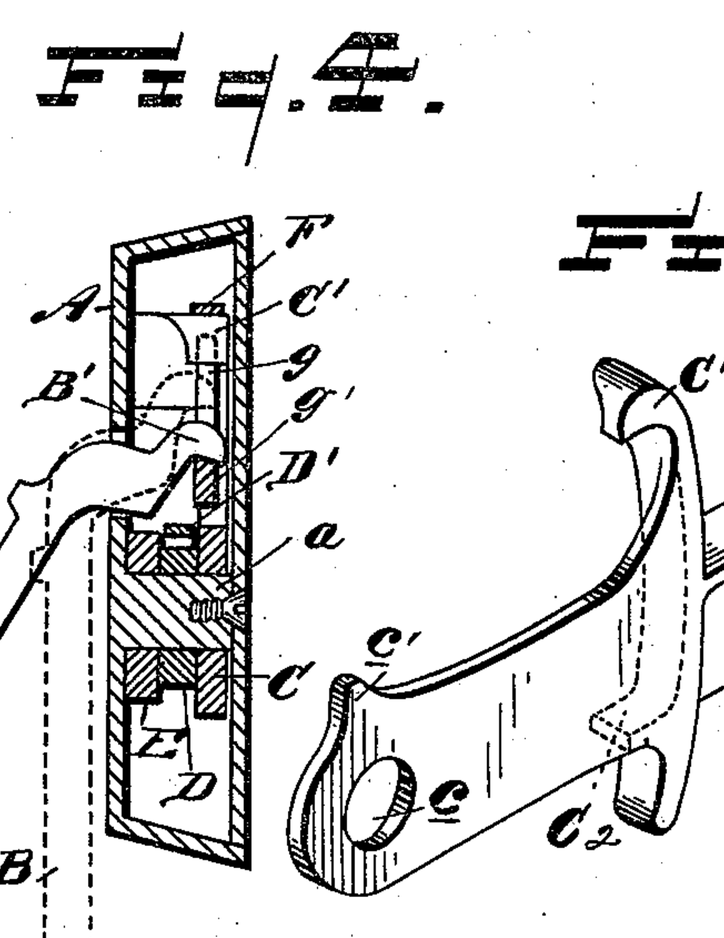


Fig. 5.

Fig. 6.

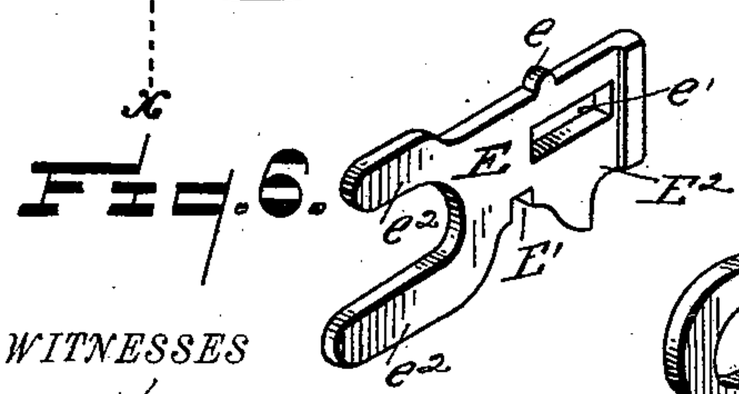
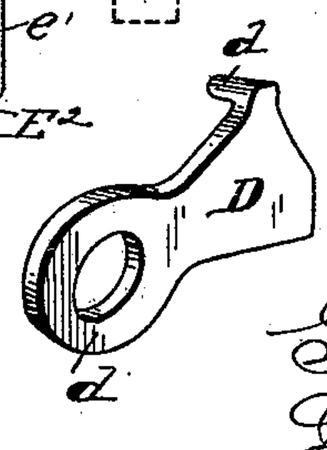


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE B. WRIGHT, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO CHARLES H. LEONARD, OF SAME PLACE.

COMBINED LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 464,222, dated December 1, 1891.

Application filed August 8, 1891. Serial No. 402,159. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WRIGHT, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, 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 a combined latch and lock for doors of the variety known as "rim-latches;" and it consists in the construction, combination, and arrangement of the various parts, as hereinafter described, and pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a rear elevation with the back plate removed to show details, the positions of some of the underlying parts being shown in dotted outline, with the parts in the position they respectively occupy when the device is locked; Fig. 2, the same with parts broken away; Fig. 3, the same with the parts shown in the position they will assume when the device is unlocked and the bolt raised, the rear portions of the bolt being broken away; Fig. 4, a vertical section on the line *x x* of Fig. 3; Fig. 5, a detail in perspective of the hinge-bolt; Fig. 6, the same of the sliding bar engaging the hinge-bolt for locking the device; Fig. 7, the same of the tumbler.

A represents the casing, having key-hole A′ through lower portion thereof and integral stumps *a a′*, upon which various parts are journaled, (and have threaded sockets for the screws, by which the back plate is secured,) and a stump a^2, forming a stop for the sliding bolt E, and other stumps (not lettered) placed adjacent to various parts to form rests, stops, &c., as will readily be understood by inspection.

B is the handle, U-shaped, having its prongs inwardly turned and passing through suitable slots in the face of the casing, thence upwardly turned, forming shoulders, which engage the lower edges of said slots, the right-hand prong being formed into the hook B′, which engages the arm *g′* of the tilting lever G, while the left-hand prong B^2 acts as a stop to limit the upward movement of the handle.

C is the hinge-bolt, having its exterior horizontal arm suitably beveled for engaging the catch, as will be readily understood, and has opening *c*, by which it is pivoted upon stump *a*, and a shoulder *c′* for limiting lateral movement of the spring D′, (as will be seen from Fig. 1,) having also a notch C^2 upon its rear face and a hook C′ for engaging the arm *g* of the tilting lever G, which is pivoted on the stump *a′*. It will now be seen that when the handle B is raised the hook B′ depresses the arm *g′* of the lever G, elevating the opposite arm *g*, and, engaging the hook C′, raises the outer end of the hinge-bolt C. The spring F engages the upper face of the hook C′ and depresses the same. Thus the bolt is automatically returned to its horizontal position.

For securing the hinge-bolt C in its horizontal position—in other words, to lock the door by means of the hinge-bolt—I provide and arrange the sliding bar E, which underlies the rear portion of the bolt C and is adjusted to slide forward and engage the notch C^2 and thus prevent the bolt C from being lifted, the stump a^2 engaging the slot *e′* and limiting both vertical and lateral movement, the forward portion E^2 being somewhat enlarged to form a deeper engagement of the notch. The lug *e* engages the dog *d* on the tumbler D and prevents its sliding backward until the tumbler is lifted by the key, which, when used, is inserted at the key-hole, and the web engages the notch E′ for sliding the bar backward out of engagement with the bolt C. The prongs e^2 e^2 are arranged above and below the stump *a*, respectively. The tumbler D is pivoted on stump *a* by means of opening *d′* and has the depressing-spring D′ arranged as shown.

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

1. The combination, with the casing A, of the handle B, having the hook B′ arranged within the casing, the pivoted hinge-bolt C, having the hook C′, and the tilting lever G, having an arm engaging the hook B′ and an arm engaging the hook C′, substantially as set forth.

2. The combination, with the casing A, of the rear pivoted hinge-bolt C, having upon its interior face the notch C^2, and the sliding bar E, having the lug *e* arranged underlying the rear portion of the bolt C and at the rear of notch C^2 and adapted to slide forward and engage the notch C^2, and tumbler D, having the dog *d* engaging the lug *e*, substantially as set forth.

3. The combination, with the casing A, the handle B, having the hook B′ arranged within the casing, the rear pivoted hinge-bolt C, having the hook C′ and notch C^2, the tilting lever G, engaging with the handle B and the bolt C, respectively, as shown, the sliding bar E, adapted to engage the notch C^2 of the bolt C, and the tumbler D, engaging the sliding bar E, substantially as and for the purposes set forth.

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

GEORGE B. WRIGHT.

Witnesses:

DENNIS L. ROGERS,

MAY MOULTON.