

(Model.)

C. E. LEGG, O. G. ALEXANDER & G. W. LEGG.
LATCH.

No. 445,562.

Patented Feb. 3, 1891.

Fig. 1.

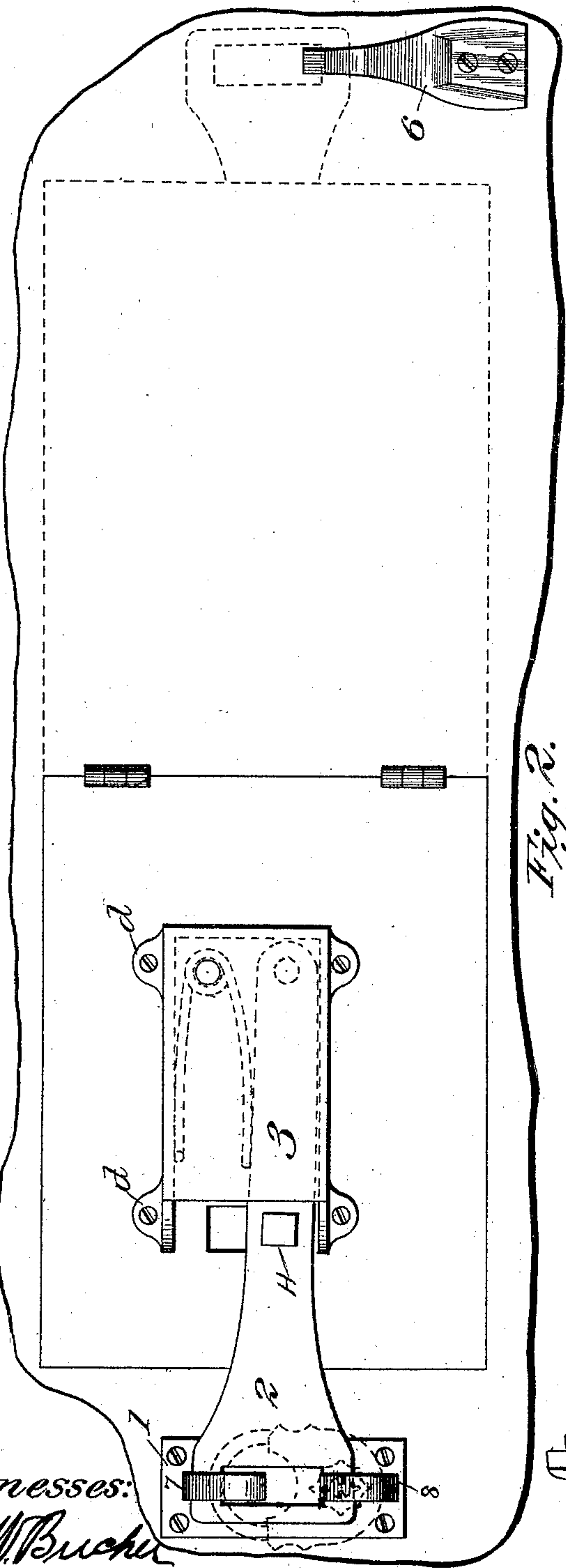
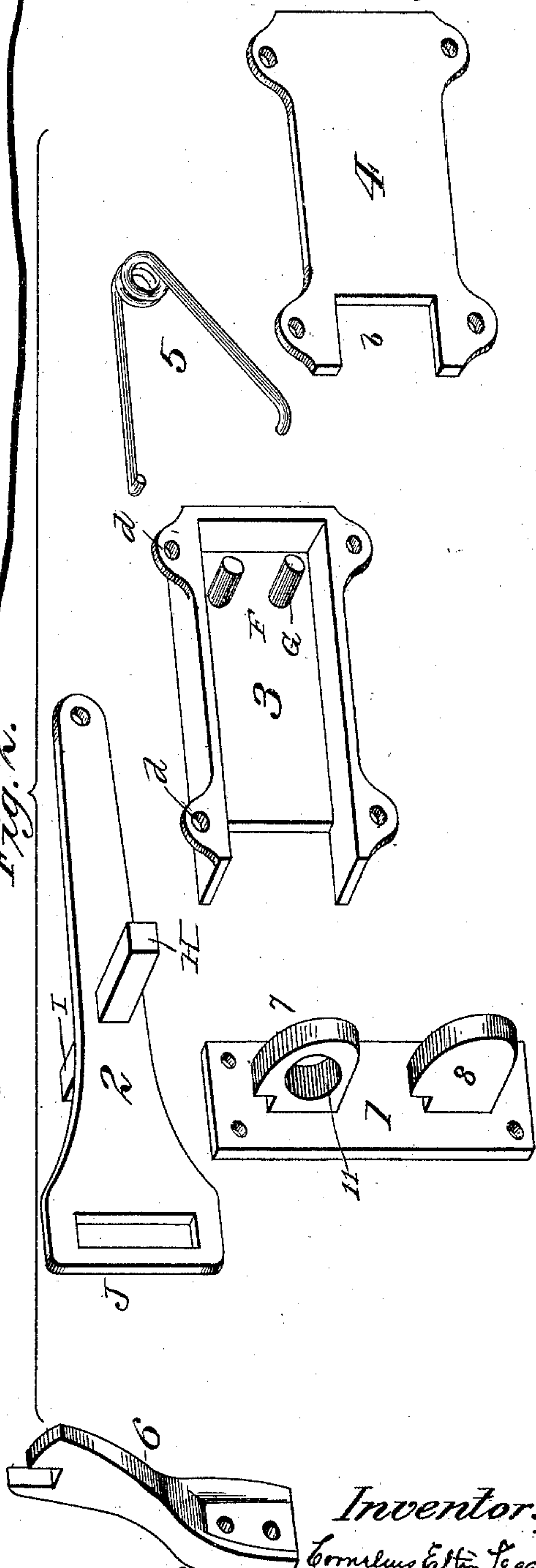


Fig. 2.



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LATCH.

SPECIFICATION forming part of Letters Patent No. 445,562, dated February 3, 1891.

Application filed December 23, 1889. Serial No. 334,763. (Model.)

To all whom it may concern:

Be it known that we, CORNELIUS ELTON LEGG, OLIVER GREEN ALEXANDER, and GEORGE WASHINGTON LEGG, citizens of the United States, residing at Dunkerton, in the county of Black Hawk and State of Iowa, have invented certain new and useful Improvements in Gate or Door Latches; and we do 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.

Our invention has relation to improvements in gate or door latches; and it consists in certain improvements upon the latch described and claimed in our application filed December 24, 1889, Serial No. 334,763, as will be hereinafter set forth.

The present invention will be fully understood from the following description and claim, when taken in connection with the accompanying drawings, in which—

Figure 1 is a front elevation of a door-jamb and swing-door, showing our improved latch complete in position thereon. Fig. 2 is a perspective view of the several parts separated.

Referring to said drawings by numerals and letters, 4 indicates the base-plate of a casing, in which is pivoted the gravitating locking-lever and its pressure-spring, presently to be described. This base-plate 4 is provided with ears having screw-openings, is attached to the side of the door adjacent to the outer end thereof, and the said plate is furthermore provided at its end adjacent to the end of door with a vertical rectangular opening *b* for the passage of the inwardly-directed lateral hand-piece of the gravitating lever, a corresponding opening for a similar purpose being cut in the door at this point.

3 indicates the cap-plate of the casing, in which the gravitating lever is secured. This boxing or casing 3, which is open at its end adjacent to the outer end of the door and has its top plate cut away at that point for the play of the outwardly-directed hand-piece of the lever, is provided upon the inner edge of its side walls with outwardly-directed flanges *d*, having screw-openings so arranged as to coincide with the screw-openings of the

base-plate 4, to which the cap-plate is attached by screws or bolts.

The vertical wall of the casing 3 is provided at suitable points upon its inner side with inwardly-directed pivot-lugs F and G, which are formed integral with or fixed in said casing.

2 indicates our improved gravitating latch-lever, which is provided at its inner end with an annular opening for the reception of the stud G, upon which it is pivoted. This latch-lever B is provided at an intermediate point in its length with two lateral hand-pieces H and I, the latter extending through the opening in plate 4, and the door provides a means whereby the lever-latch bar may be actuated from the inside, and the other piece H provides a convenient means whereby the lever may readily be moved from the outside. The said lever 2 extends a sufficient distance in the direction of the outer end of door, and it is provided at its end with an integral rectangular enlarged portion J, in which, adjacent to the end of latch-lever, is cut a vertical rectangular slot or opening K, adapting said lever to ride over the beveled edges and be seated in the recesses or slots of keeper-studs, hereinafter described.

5 indicates a pressure-spring, consisting of a coil and two tangentially-extending arms. This spring 5, the coil of which is pivoted on the stud F of the casing, is so arranged, as shown, that one of its arms will bear against the top wall of the casing, while its other arm bears against the top edge of the gravitating lever 2, serving to keep the same normally depressed and facilitating its engagement with the keeper-catches of the keeper-plate.

I indicates the keeper-plate, which is secured at a suitable altitude to the door-jamb, and is provided with two outwardly-extending beveled latch-studs, arranged one above the other in the same vertical line. These latch-studs (indicated by numerals 7 and 8, respectively) are, as has been described, beveled at their outer ends, and said beveled portion extends a sufficient distance inward to a point where the catches are slotted or recessed, as indicated by 9 and 10, to afford seats for the end of lever 2 when the same has been engaged. The lateral catches of the keeper-

plate are of analogous constructions, with the exception that the upper catch 7, which receives the rectangular slot of the latch-lever, is provided with a lateral eye for the reception of the arm of a lock or a wedge when it is desired to lock the latch-lever and the door.

6 indicates a catch-arm adapted and arranged to receive the latch-lever 2 when the door has been swung open and hold the same in that position. This arm 6 is arranged upon the wall at an opposite point to the keeper-plate 1 with respect to the hinges of the door, and it is placed at suitable altitude to seat the lower edge of the lever 2, and is provided at its lower end with a flattened portion having screw-openings for the attachment of the catch to the wall. Rising from this flattened portion at the bottom is a sufficiently upwardly and outwardly curved integral arm portion, which is provided with a vertical recess or slot in its top for the reception of the edge of lever-latch, as described, the outer wall of said slot or recess being beveled to allow the latch-lever to readily ride up and into the slot designed for its reception.

From the foregoing description, taken in connection with the annexed drawings, the operation of our invention will be obvious. It will be seen that by swinging the door closed the latch-lever will ride into the studs of the keeper-plate and automatically engage the same, when the arm of a lock or a wedge may be inserted in the eye 11 and the latch locked in position.

The operation of the lever-latch and the catch-arm 6 when it is desired to secure the door in an open position has been described and is therefore obvious.

We are aware that it is not new to provide a latch-bolt with arms or lugs on opposite sides having holes to receive a lock-bolt, whereby a hinged door may be locked in an open and closed position.

Having described our invention, what we claim is—

The keeper-plate 1, having the stud 8, beveled as shown, and provided with a notch in its upper inner edge, and also having the stud 7, similarly constructed and provided with the eye 11, in combination with the keeper 6 and the door hinged between said keepers so that its latch-bolt may engage them when opened and closed, the latch-casing 3, secured to the door, the latch-bolt 2, pivoted at its inner end in said casing and its outer end slotted to receive the keeper-stud 7, the spring 5, arranged in the latch-casing and pressing upon said latch, the latch also having arms H I on opposite sides, and one of the arms passing through a slot in the door, all substantially as specified.

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