

G. E. CLAWSON.
 LATCH AND LOCK.
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996,977.

Patented July 4, 1911.

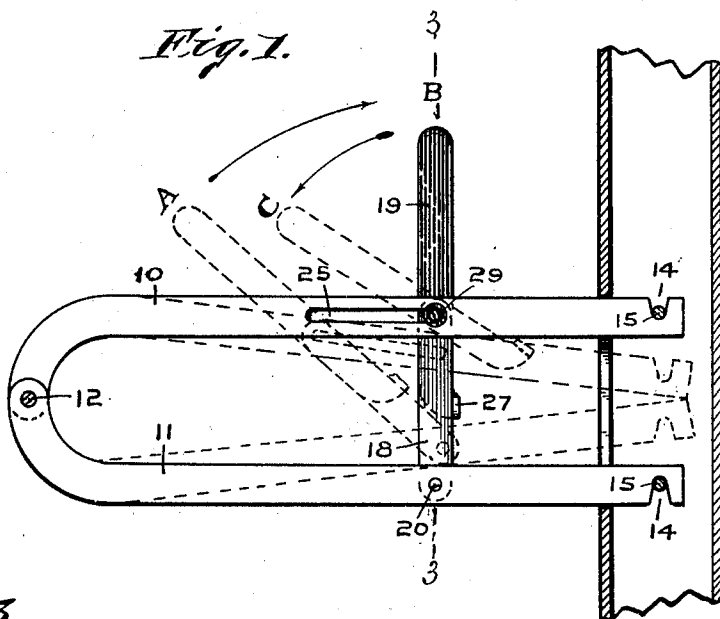


Fig. 3.

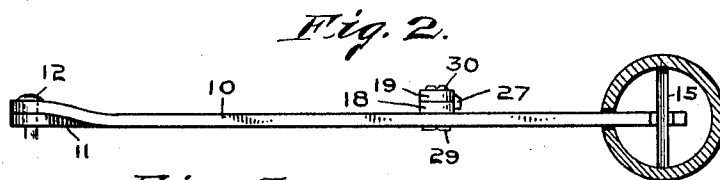


Fig. 4.

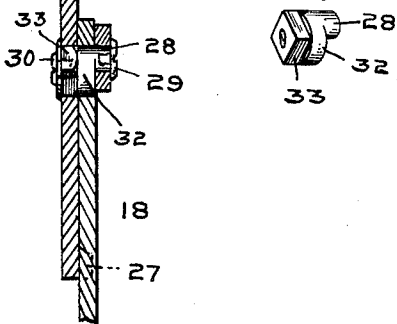
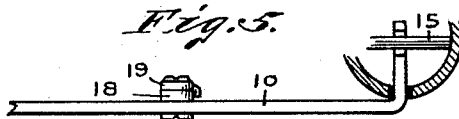


Fig. 5.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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LATCH AND LOCK.

996,977.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed February 9, 1911. Serial No. 607,721.

To all whom it may concern:

Be it known that I, GEORGE E. CLAWSON, a citizen of the United States, residing at Mooresville, in the county of Morgan and State of Indiana, have invented certain new and useful Improvements in Latches and Locks, of which the following is a specification.

This invention relates to a combined latch and lock for both sliding and swinging doors and gates, the invention being particularly applicable for a lock to be used where two objects are moved together in the same plane or where one object is moved and attached to a stationary object as, for instance, a connection between bed-rails and heads and feet portions of beds, sliding barn doors and similar suspended devices.

The object of this invention is to provide a simple and efficient latch and lock for swinging and sliding doors whereby they may be securely latched and locked to prevent them from being accidentally opened or opened from the outside of the doors.

I accomplish the object of the invention by means of the latch and lock shown in the accompanying drawings, forming a part hereof, in which—

Figure 1 is a side elevation of a combined latch and lock separated from its mounting, showing the keeper for the lock in section. Fig. 2 is a top or plan view of the construction shown in Fig. 1. Fig. 3 is a section, on an enlarged scale, through the latch-bars and operating levers, on the line 3—3 in Fig. 1. Fig. 4 is a perspective view of the cam for locking the latch-bars in operative position. Fig. 5 is a top or plan view of the forward ends of a modified form of the latch-bars in which the front ends are bent when used in connection with a swinging door or gate.

Referring to the drawings, 10 and 11 represent a pair of companion jaws or latch-bars, each having an end curved and the two bars being pivotally secured together at 12 to normally hold said ends of the bars apart, and the front ends of the bars are provided on their outer edges with the notches 14 which engage the transversely extending pins 15, or other suitable securing means, for said bars when the latter are moved into their outermost positions. An operating lever is employed to retract and spread the latch-bars 10 and 11 to cause them to be en-

gaged and disengaged from the pins 15, and said operating lever is preferably composed of the two members 18 and 19. The member 18 pivotally engages the bar 11, at 20, and extends across to and makes engagement with the bar 10 through a suitable cam, which will be hereinafter described. The member 19 is attached to and rotates said cam by providing said member with a square opening which engages the squared portion of the cam.

The dotted position of the bars 10 and 11 in Fig. 1 of the drawings shows their relative position when their forward ends are inserted between the pins 15. The bars are then moved from the position shown in dotted lines to the position shown in full lines, by moving the operating lever from A to B, which movement is permitted by means of the longitudinal slot 25 in the bar 10. This movement of the bars causes the notches to engage the pins 15 and lock the parts together.

The members 18 and 19 of the operating lever are forced to travel together in one direction by providing the member 19 with a laterally disposed lug 27 which rests upon the adjacent edge of the member 18. See Figs. 1 and 2. When the operating lever is moved to occupy the position at B it stands approximately at right angles to the bars 10 and 11 at which time the bars are forced almost to the limit of their lateral travel, the notches 14 loosely engaging the pins 15. To impinge the bars upon the pins and thus prevent vibration from possible moving the operating lever back to its former position and allow the bars to free themselves from the pins 15, I provide the cam heretofore mentioned. This cam consists of a cylindrical body portion reduced at one end to form the eccentrically disposed cam-spindle 28 which projects through the longitudinal slot 25 in the bar 10, the latter being held in position by means of the screw 29. The member 19 is held in position by means of screw 30. By means of this construction the cam is given a partial rotation when the member 19 of the operating lever is moved from B to C. This partial rotation of the cam changes the position of the spindle 28, causing the bars 10 and 11 to move a slight distance farther apart, which movement is sufficient to securely lock said bars against the pins 15. When the operating

lever stands at C the position of the cam is such as to prevent back movement unless the member 19 is moved back to B, by the operator.

5 Fig. 5 of the drawings shows a slight modification of the bars, enabling them to be used in connection on swinging doors and gates. To accommodate these bars to a swinging gate the free ends of said bars are bent at right angles to the bodies of the bars, thus enabling them to engage pins, similar to the pins 15, or other suitable catch devices, to enable the ends of the bars to be engaged and locked.

10 Having thus fully described my said invention, what I desire to secure by Letters Patent, is—

1. A combined latch and lock consisting of a pair of pivotally connected jaw members provided with notches and one member being additionally provided with a longitudinal slot, an operating lever connected to one of the jaw members and lying against the side of the other jaw member, means comprising a cam passing through the operating lever and the slot in one jaw member, said lever operating through said means to cause said jaws to move apart when moved to assume a position at right angle of said jaws, and suitable keepers for

engaging and retaining said jaws against accidental displacement.

2. A combined latch and lock consisting of a pair of pivotally connected jaw members provided with notches and one member being additionally provided with a longitudinal slot, an operating lever, composed of an inner and an outer member operating as one in moving in one direction but susceptible to independent movement in the reverse direction, the inner member at one end pivotally engaging one of the jaws and the other end engaging a cam, a cam having one end terminating in an eccentric which engages the slot in the other jaw member, the outer member of the operating lever adapted to rotate said cam to cause said jaws to move an additional distance apart and against the keepers, and suitable keepers for engaging and retaining said jaws against accidental displacement.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this, 16th day of January, A. D. one thousand nine hundred and eleven.

GEORGE E. CLAWSON. [L. s.]

Witnesses:

F. W. WOERNER,
L. B. WOERNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."