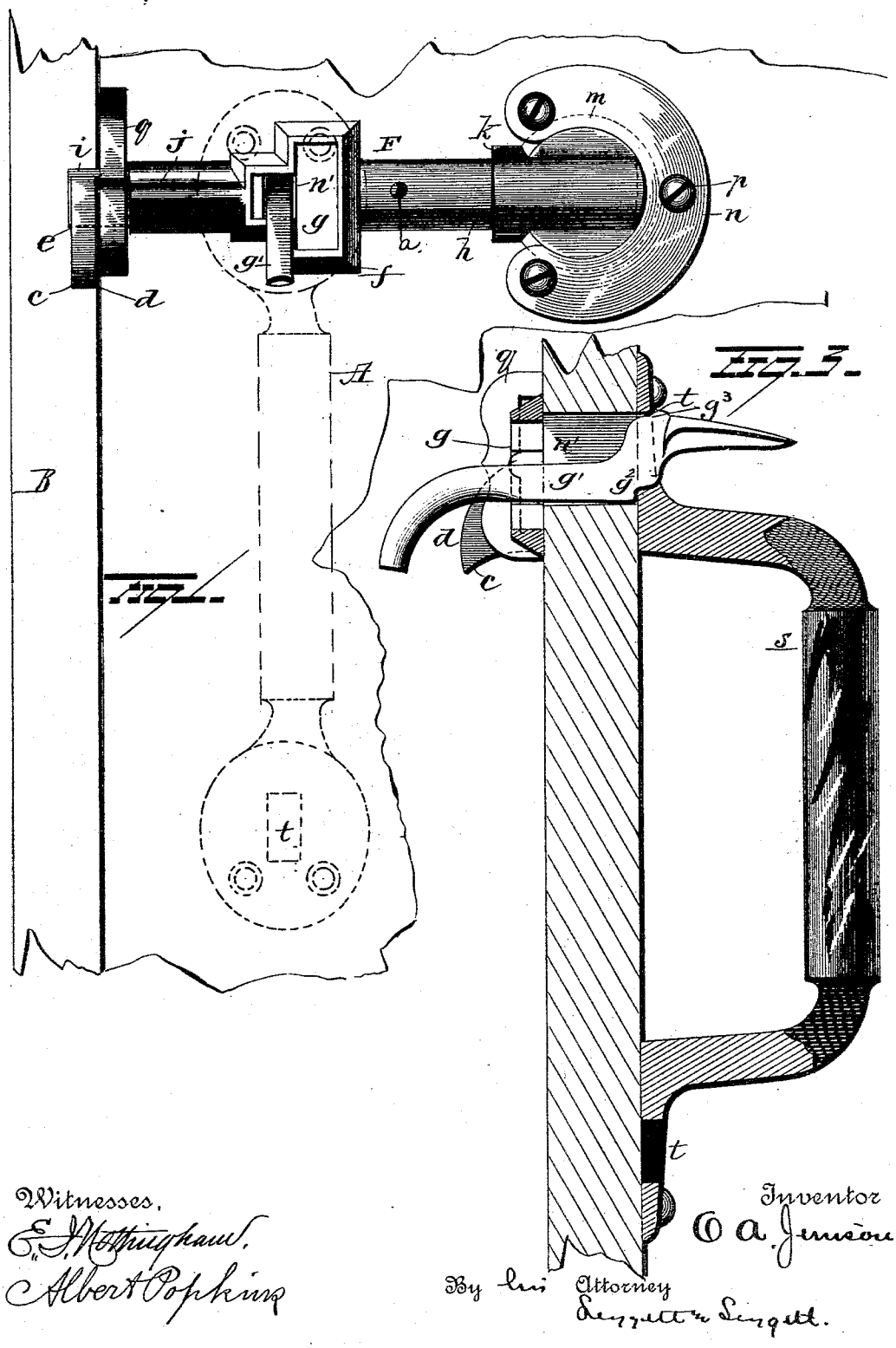
(No Model.) 2 Sheets—Sheet 1.

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LATCH.

No. 401,169. Patented Apr. 9, 1889.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

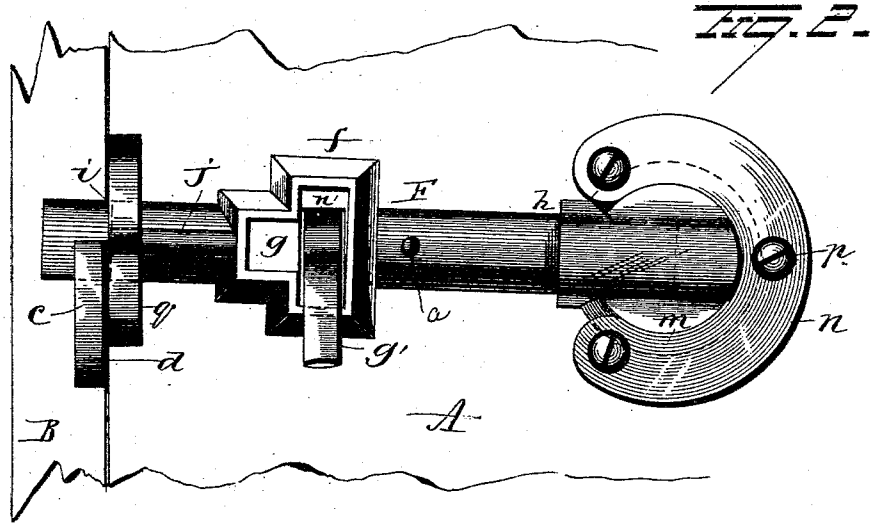
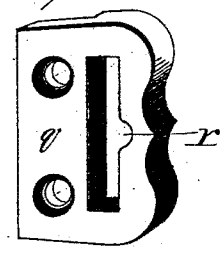


Fig. 4.



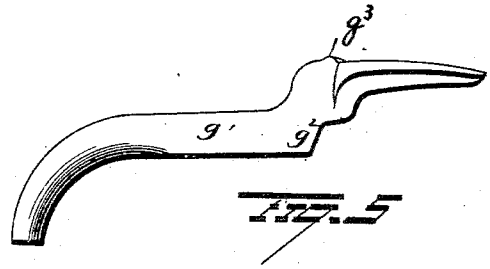


Fig. 5.

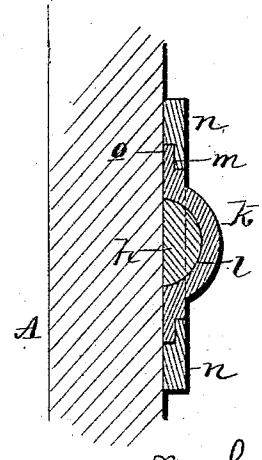


Fig. 6.

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UNITED STATES PATENT OFFICE.

ORIEN A. JENISON, OF LANSING, MICHIGAN.

LATCH.

SPECIFICATION forming part of Letters Patent No. 401,169, dated April 9, 1889.

Application filed December 27, 1888. Serial No. 294,791. (No model.)

To all whom it may concern:

Be it known that I, ORIEN A. JENISON, of Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Door-Latches; 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 thumb-latches for doors.

The object is to provide a latch of the character specified which shall consist of few parts combined in a durable and operative form, and one which, when in position on a door, is so arranged as to render it operative from one or both sides of the door.

With this end in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a portion of a door and door-frame with my improved latch applied. Fig. 2 is a similar view showing the bolt locked. Fig. 3 is a transverse sectional view through the door and lock. Fig. 4 is a detached view of the keeper. Fig. 5 is a similar view of the thumb-lever, and Fig. 6 is a transverse sectional view.

A represents the door, and B the door-frame. To the latter the keeper *c* is secured, it having the usual inclining outer edge, *d*, and notch *e*—the former to raise the latch as it rides up upon it and the latter to receive the latch as it drops over the incline. To the door the latch is affixed.

F represents the latch-bolt of the latch. This bolt is preferably flat on the side which rests against the door. At about the center of the bolt there is a T-shaped enlargement, *f*, in which a similarly-shaped slot, *g*, is formed, through which the thumb-lever *g'* extends. The ends of this bolt are also differently shaped, the butt-end *h* being rounded and the opposite end, *i*, where it enters the notch *e* in the catch-plate, flattened, while the portion between this end and the enlargement *f* is provided with a longitudinal rib, *j*, which will receive further reference. The latch-bolt is slid longitudinally by the button or pin *a*, attached thereto.

A circular plate, *k*, flat on its inner face and provided with a rounded socket, *l*, adapted to receive the butt-end *h* of the latch-bolt F, rests against the door. The opposite or outer face of this plate *k* is rounded to form the socket, and provided with an annular offset portion, *m*, which forms a bearing-surface to allow the circular plate to turn between the door and the rim *n*. Said rim is in the general shape of a horseshoe. It is flat on the outside face and extends flush with the outer face of the circular plate *k*. The inside face of this rim is hollowed out to form the offset *o*, which conforms in shape to the offset *m* on the circular plate, and is adapted to receive the latter and allow the circular plate to turn, but not become displaced. This rim-plate is provided with screw-holes *p*, whereby it is held on the door over the circular plate. The keeper *q* on the edge of the door adjacent to the catch-plate receives the end *i* of the bolt and keeps the latter against the door. This keeper is provided at a point about in line with the upper edge of the catch-plate with a notch, *r*, of sufficient size to receive the rib *j* on the back of the slide-bolt when the latter is slid forward. On the opposite side of the door a handle, *s*, is secured. This handle is provided at each end with a slot, *t*, so that the handle may be turned with either end up. One of these slots is placed over the hole *n* in the door, and through it the thumb-lever *g'* is passed. This lever deserves a brief description. In general outline it is similar to the ones in ordinary use—that is, it is flattened at one end for the thumb of the operator, and bent down at the opposite end to form a short handle for the fingers.

The peculiarities in shape consist in the shoulders g^2 and g^3, formed adjacent to the thumb-piece. The lower one, g^2, rests just inside of the slot *t*, to prevent the lever from sliding out of place, and the upper one, g^3, normally abuts against the upper edge of the slot *t*.

Now, in operation, when the bolt is in the position shown in Fig. 1 in full lines, the thumb-lever *g'* is within the narrow end of the T-shaped slot *g* and the flattened end *i* of the slide-bolt is within the keeper. When in this

position, the operator on either side of the door has simply to raise or press upon the thumb-lever, and the latch is raised out of the notch *e* in the usual fashion, so that the door may be opened; but supposing it is wished to lock the door. To do this, the bolt is simply slid endwise until the enlarged end of the T-shaped slot surrounds the hole in the door and the rib *j* enters the notch in the keeper. Then the thumb-lever may be operated from either side; but it cannot raise the latch, because it is so arranged that it does not touch the latter, it operating entirely inside the enlarged portion of the T-shaped slot. When slid back to its normal position, the latch may again be operated from either side by the thumb-lever.

The rib *j* might be dispensed with entirely, as it simply serves as an extra precaution; but it is evident that the formation of the slot *g*, as described, is sufficient for ordinary purposes to make the latch burglar-proof.

It is evident that any ornamental finish might be given the parts, and also that slight changes might be resorted to in the form and arrangement of the several parts described, without departing from the spirit and scope of my invention; hence I do not wish to limit myself to the particular construction herein set forth; but,

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

1. In a latch, the combination, with a turning plate having a socket therein, of a sliding latch-bolt, one end of which rests loosely within said socket, substantially as set forth.

2. In a latch, the combination, with a turning plate having a socket therein, of a sliding latch-bolt, one end of which rests loosely within said socket, and means for operating and locking the bolt, substantially as set forth.

3. In a latch, the combination, with a turning plate having a socket therein, of a latch-bolt loosely mounted in the socket of the turning plate, and a lever, the said bolt having a shoulder adapted when the latch-bolt is in one position to rest over and in a position to be engaged by the lever, substantially as set forth.

4. In a latch, the combination, with a turning socket and rim to hold the latter in place, and a slide-bolt, the latter having a rib thereon, of a keeper having a notch therein adapted to receive said rib in order to lock the latch, substantially as set forth.

5. In a latch, the combination, with a turning socket and a rim to hold the latter in place, of a bolt having a T-shaped slot and a rib, a keeper having a notch to receive the rib, and a thumb-lever for operating the latch-bolt, substantially as set forth.

6. In a latch, the combination, with a turning socket having an offset thereon, and a rim having a corresponding offset to receive said turning socket, of a latch-bolt adapted to slide in the socket, said bolt having a T-shaped slot, a rib, and a flattened end, a keeper having a notch to receive the rib, a thumb-lever, and a slotted handle, substantially as set forth.

7. In a latch, the combination, with a longitudinally-sliding latch-bolt having a T-shaped slot therein, of a lever passing through said slot, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ORIEN A. JENISON.

Witnesses:
WYLLYS C. RANSOM,
T. M. WILSON.