

H. C. HILL.
THUMB-LATCHES FOR DOORS.

No. 178,926.

Patented June 20, 1876.

Fig. 4

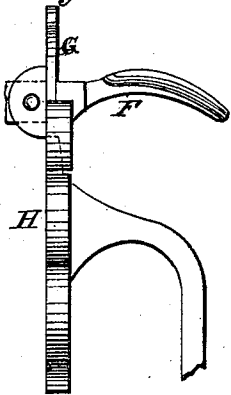


Fig. 1

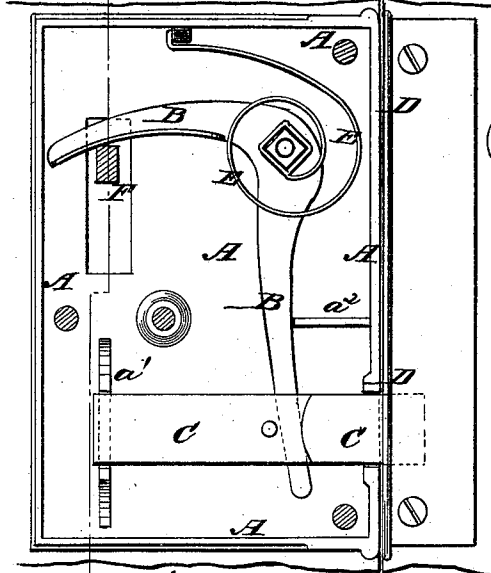


Fig. 3

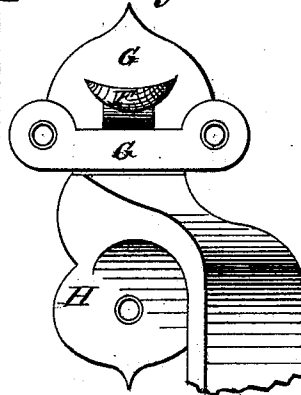


Fig. 2

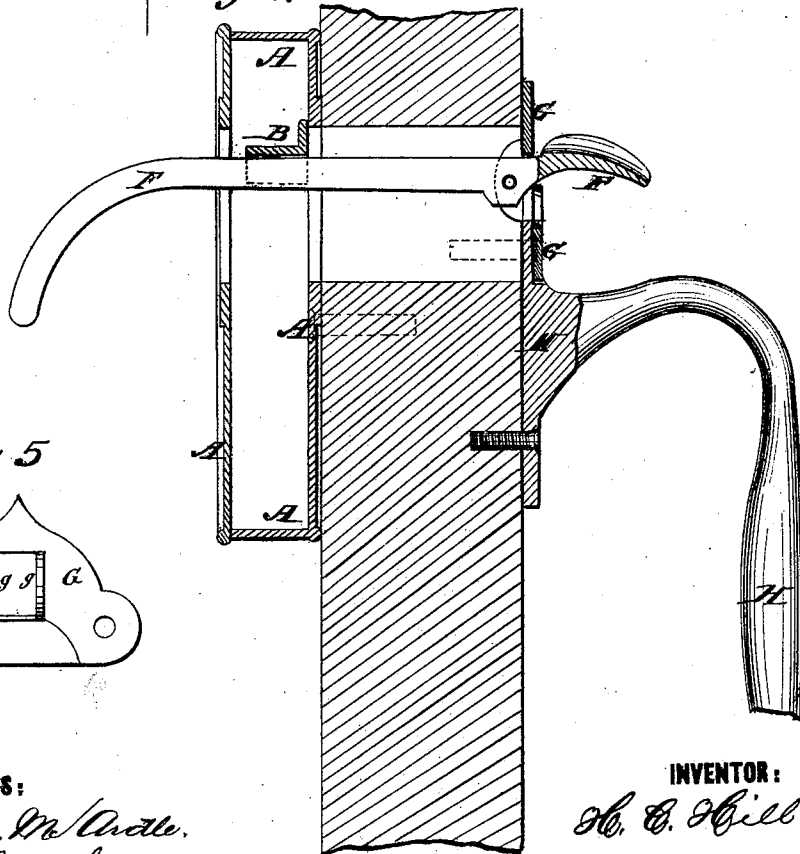
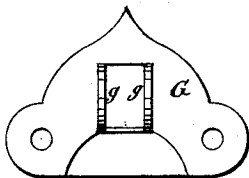


Fig 5



WITNESSES:

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John Goethals

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UNITED STATES PATENT OFFICE.

HENRY C. HILL, OF NORRISTOWN, PENNSYLVANIA.

IMPROVEMENT IN THUMB-LATCHES FOR DOORS.

Specification forming part of Letters Patent No. **178,926**, dated June 20, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that I, HENRY C. HILL, of Norristown, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Latch for Store and Car Doors, of which the following is a specification:

Figure 1 is a side view of my improved latch, the face-plate being removed. Fig. 2 is a vertical section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a perspective view, showing the connection of fulcrum-plate with handle. Fig. 4 is a side elevation of the same. Fig. 5 is a rear view of fulcrum-plate, showing the lugs.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with drawing, and then pointed out in the claim.

A represents the case of the latch, which is made like the case of an ordinary rim-lock, and is secured to the door in the same way. B is an elbow or bent lever, which is pivoted at its angle to the case A, and its lower arm rests against a shoulder formed upon the catch-bolt C, against which it is kept in place by a pin attached to or a projection formed upon the said bolt, so that the said bolt C may be moved out and in by the said lever B. The catch-bolt C works in a hole in the front wall of the case A, and in a guide, *a'*, formed upon the case A. The forward end of the catch-bolt C is beveled off, so that it may be pushed back by the catch D, when the door is swung shut. The catch-bolt C is pushed out to fasten the door by a coiled spring, E, one end of

which is attached to the hub of the bent lever B, and its other end is attached to the case A, and its forward movement is limited by a stop-flange, *a*², formed upon the case A. The catch-bolt C is drawn in to unfasten the door by raising the upper arm of the bent lever B, by the thumb-piece or lever F, which passes through a slot in the case A and in the door. The thumb-lever F is pivoted to lugs *g g* on the fulcrum-plate G, which is attached to the other side of the door, and the lower part of which is so formed as to fit over the upper end of the upper lug-piece of the handle H, so that they may both be secured by the same screw. The handle H is made with a bend or offset, to enable it to be placed sufficiently near the edge of the door to operate the latch, and leave space for the hand between the handle and the door-casing.

I am aware that a handle, under plate, and lever have heretofore all been applied before putting on the door, but in order to avoid this I make the fulcrum-plate G separate from the handle H, so that the former may be applied before and the latter after the door has been set in place.

Having thus described all that is necessary to a full understanding of the invention, what I claim as new is—

The lever F, pivoted only to the lugs *g g* of the fulcrum-plate G, in combination with handle H, partly secured by said plate, substantially as shown and described.

HENRY C. HILL.

Witnesses:

ABM. S. HALLMAN,
FLO. STEARNS.