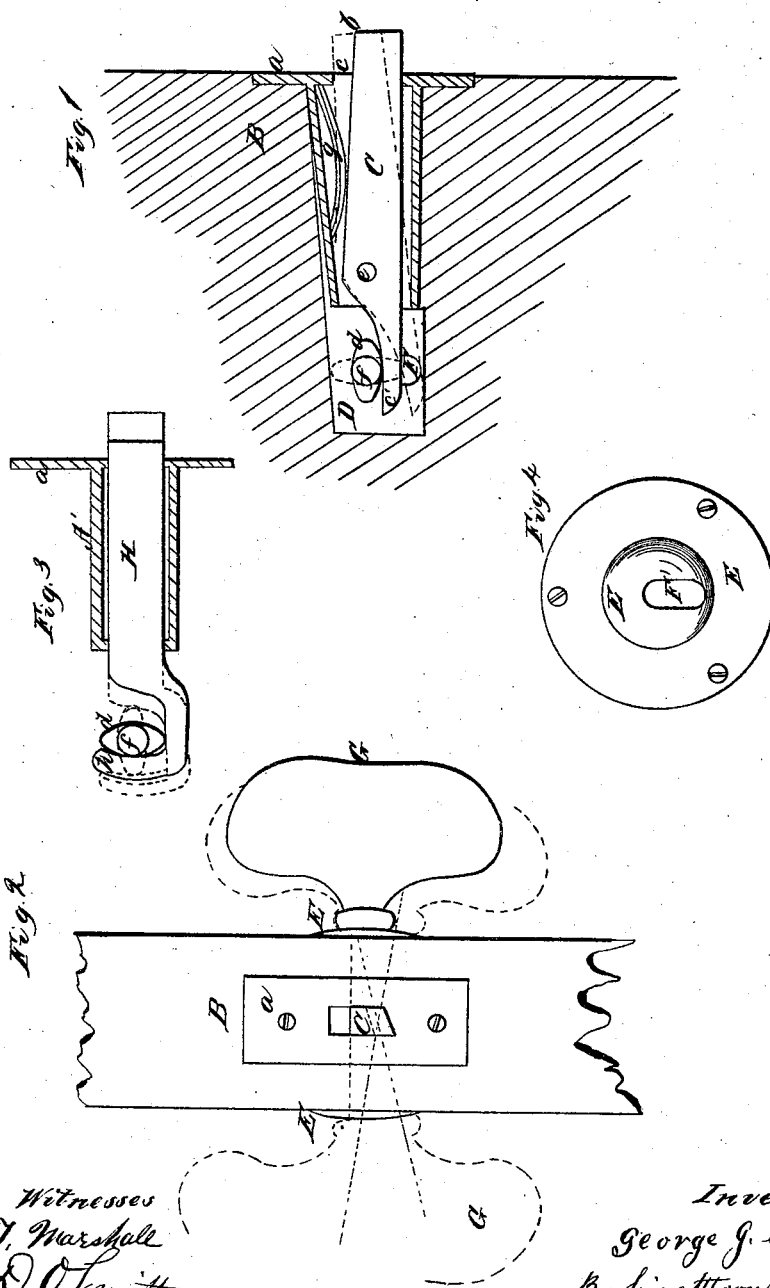


G. J. Colby,
Latch.

N^o 48,909.

Patented July 25, 1865.



Witnesses
R. T. Marshall
R. D. O. Smith

Inventor
George J. Colby
By his Attorney
J. B. Woodruff

UNITED STATES PATENT OFFICE.

GEORGE J. COLBY, OF WATERBURY, VERMONT.

KNOB-LATCH.

Specification forming part of Letters Patent No. 48,909, dated July 25, 1865.

To all whom it may concern:

Be it known that I, GEORGE J. COLBY, of the town of Waterbury, in the county of Washington, State of Vermont, have invented a new and useful Improvement in Knob-Latches; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a section through the mortise-and-latch mechanism. Fig. 2 shows the edge view of the door with latch-plate and knobs, the positions for opening in red and blue lines. Fig. 3 represents a bolt, and the mechanism so placed as to work it laterally. Fig. 4 shows a knob-plate.

The object of my invention is to have a universal knob-latch that can be operated to open the door on either side by pressing the knob down or lifting it up, as well as turning it in either direction; or the latch may be so constructed that the latch forms a bolt, and the knob pressed in either direction horizontally or semi-rotated to open the door, as seen in Fig. 2.

My invention consists in the construction and arrangement of the knob-bar, caps, and latch-bolt, so that by turning the knob either way or pressing it up or down or laterally it will release the latch or bolt-catch and allow the door to open.

To enable others skilled in the art to make and use my universal sure-acting door-knob latch, I will describe it more fully, referring to the drawings, and to the letters of reference marked thereon.

A small, neat mortise-lock frame, A, is fitted into the edge of the door B and secured by screws in the usual manner. The latch C, as seen in Fig. 1, extends out through the opening *c* in the flush-plate *a*, the opening *c* being elongated to allow the latch to rise up out of a catch, the latch C being hung on a pivot, *e*, near the inner end of the lock-frame A, and extends beyond the frame into the mortise D a sufficient distance for the cam *d* to act upon it, so that by turning the knob either way the latch will be depressed at the inner end, which causes it to lift up at the end *b*.

On both sides of the door B are secured convex plates E E, the hole F through the center

being elongated on one side, so that the shaft *f*, on which the knobs G G are secured, may be tilted by pressing the knob on either side of the door up or down, the plate E forming the fulcrum on either side, so that the cam *d* will depress the back end of the latch C and operate it to unlatch the same as turning the knob. The spring *g*, resting on the latch C, brings the knobs into their proper position when the bolt is made to slide in and out, the same as the ordinary mortise-latch. It is constructed as shown in Fig. 3, the knobs G G, shaft *f*, and cam *d* being precisely the same, the convex plates E E only being put onto the door, with the holes F horizontal instead of vertical, the sliding bolt H being fitted close in the frame A, the rear end, *h*, so shaped that the cam *d* draws the bolt in by turning the knob or moving it either way laterally.

Most persons have at times experienced great inconvenience in opening doors with the ordinary knob-latches. If the hand is wet or even moist with perspiration, it is often difficult to grasp the knob sufficiently tight to move the latch; and if a person has both hands occupied it is impossible to open a door without laying down or relieving the hand; and a person disabled or maimed in one or both hands must experience great inconvenience in getting from one room to another.

By my universal-acting knob-latch it will readily be seen that I have remedied every difficulty. If a person has but the stump of an arm, he can open the door; or by pressing any portion of the body against the knob the latch is relieved. So the door may be opened if both hands are wet or full without stopping to lay down anything or using great effort, as a slight pressure, either laterally or up or down, will effect the purpose of relieving the latch.

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

The knob-shaft and cam, in combination with the convex plates on both sides of the door, so constructed as to form the lever and fulcrum to operate the latch or bolt, as herein described.

GEO. J. COLBY.

Witnesses:

JOHN S. HOLLINGSHEAD,
J. B. WOODRUFF.