J. R. PAYSON.
Latch.

No. 217,140. Patented July 1, 1879.

Fig. 1.

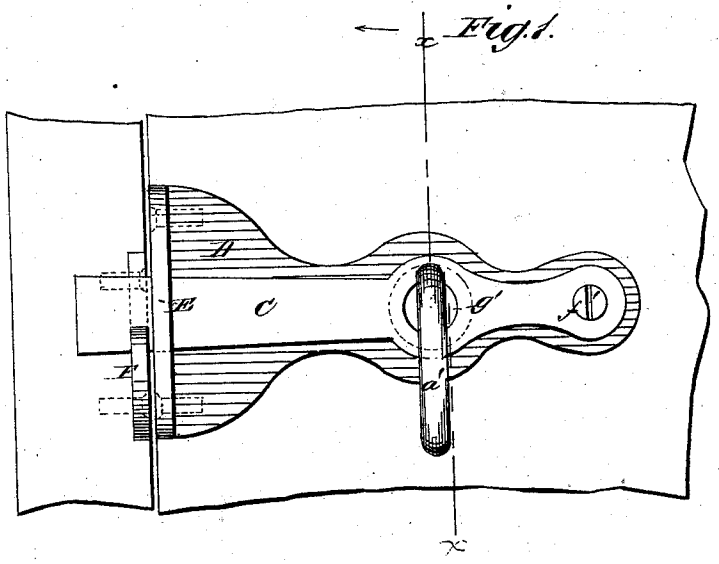
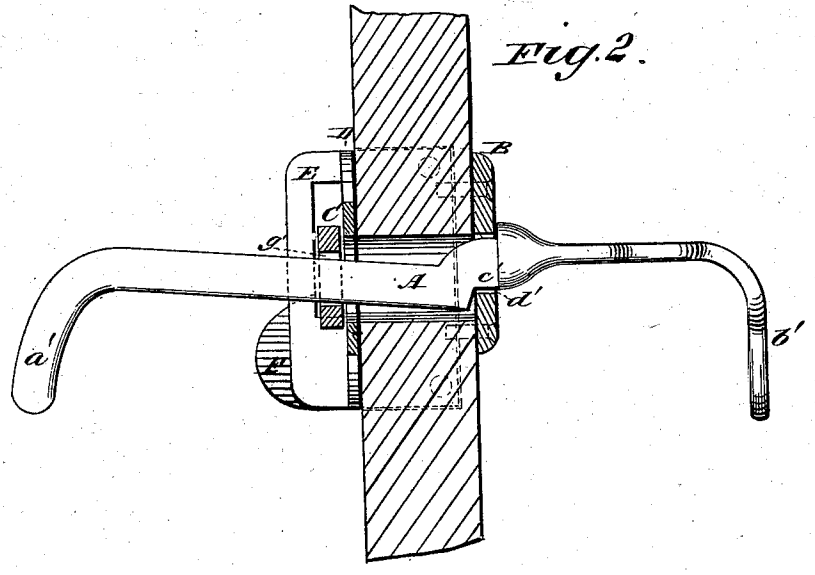


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOSEPH R. PAYSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LATCHES.

Specification forming part of Letters Patent No. **217,140**, dated July 1, 1879; application filed April 18, 1879.

To all whom it may concern:

Be it known that I, JOSEPH ROWE PAYSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Door-Latch, of which the following is a specification.

Figure 1 is a front elevation of the latch applied to a door. Fig. 2 is a sectional elevation on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to the class of door-latches known as "thumb" or "drop" latches.

The object of this invention is to provide a durable and convenient latch that shall be direct and positive in its action, enabling the forcing of the latch downward as well as upward from either side of the door, and that shall be quick to act and catch when the door is closed violently.

The invention consists in extending the inner end of the lever through an orifice in the latch-piece, the lever having a fulcrum in the rose, with a preponderance of its weight upon the inner or latch side.

A is the latch-lever. *a'* is a handle formed upon the inner end of same, and *b'* is a handle formed upon the outer end. *c'* is the fulcrum, which has its bearing on the rose B in the opening *d'*. C is the latch-piece; *f'*, the pivot, and *g'* the opening through which the lever A passes. D is the templet and guard-plate; E, the keeper, and F the catch.

Arranged as shown, it is evident that a downward pressure upon the handle *b'* will elevate lever A and latch C, and that an upward pressure on *b'* will force lever A and latch C downward, and, vice versa, an upward pressure on handle *a'* will raise latch C, and a downward pressure will force it downward; also, that a portion of the weight of lever A and handle *a'* rests upon the latch-piece C at *g'*, and has a tendency to quicken its action in latching. The handle *b'* is longer than the ordinary thumb-piece, and therefore gives a greater leverage upon the latch C, and also more room to exert the full force of the hand upon it. The arrangement also gives greater strength to the latch in proportion to weight of metal used.

The different parts are cast so as to require no fitting, and are so constructed and arranged with respect to each other that the same latch will serve for either a right or left hand door.

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

Lever A, with its handles *a' b'* and fulcrum *c'*, in combination with the rose B and latch C, provided with the orifice *g'*, substantially as herein shown and described.

JOSEPH ROWE PAYSON.

Witnesses:
J. A. PAYSON,
GEO. A. PAYSON.