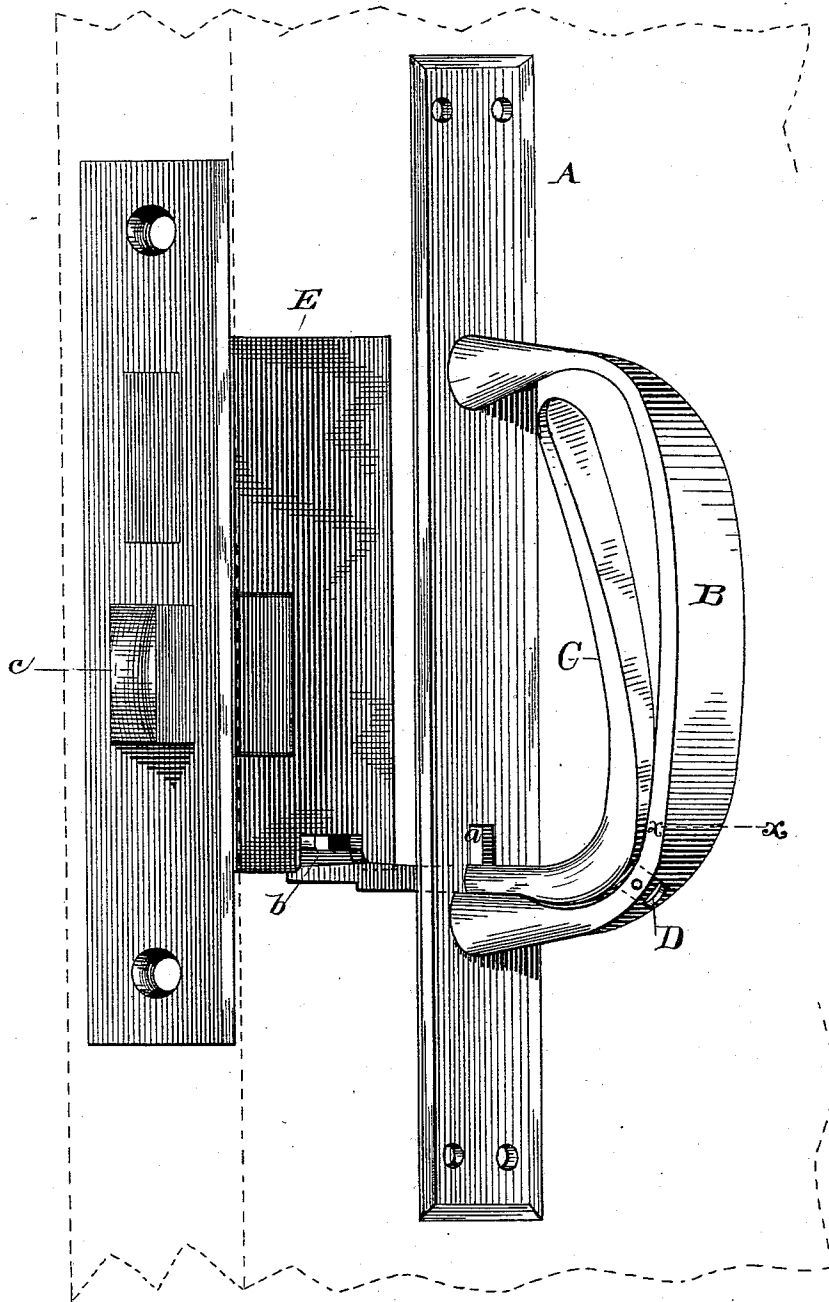


(No Model.)

A. O'KEEFE.
LATCH.

No. 429,150.

Patented June 3, 1890.



ATTEST:
E. J. Corliss
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INVENTOR.
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UNITED STATES PATENT OFFICE.

ANDREW O'KEEFE, OF NEW YORK, N. Y.

LATCH.

SPECIFICATION forming part of Letters Patent No. 429,150, dated June 3, 1890.

Application filed March 26, 1889. Serial No. 304,867. (No model.)

To all whom it may concern:

Be it known that I, ANDREW O'KEEFE, of New York city, in the county and State of New York, have invented a certain new and useful Improvement in Door-Latches, of which the following is a specification.

The object of my invention is to produce a latch by means of which the bolt of a lock may be released and the door opened at one and the same time and by one and the same motion and by pressure exerted in one and the same direction, and the accompanying drawing, forming a part hereof, is a perspective view in elevation of my device combined with the handle of a door, the door being in dotted lines.

A is a metal plate secured to the door to which is attached the metal handle B. Within this handle is secured the metal lever-latch C, the fulcrum being between the power and the weight and pivoted at D on the lower part of the handle, and, as shown, one arm of which is almost at right angles with the other arm and one arm extending up within the handle and the other protruding through a small opening *a* in the plate A into the door in contact directly under the piece of metal *b*, which is connected with the bolt *c* of the lock E. This piece is free to move up and down, and by means of mechanism in the lock moves the bolt in or out to release it from or hold it within the striking-plate. The construction of the lock, however, forms no part of my invention.

While I have shown the lever-latch C as fulcrumed on the handle, it will be readily understood that it may be as well fulcrumed on the striker-plate or on the door, one arm extending within the handle and the other passing through the door in contact with the bolt of the lock, as before.

The drawing shows the position of the lever-latch C when the door is closed. When it is desired to open the door, the hand grasps handle B, and with it the upper arm of lever C, pulls outward or in the direction to open the door, and when the upper arm of the lever within the handle moves outward the inner arm moves upward, pushing up the metal piece *b*, and the bolt *c* is drawn back and is released from the striking-plate and the door is opened. Thus it will be seen, as before stated, the same motion required to

open the door releases the bolt of the lock at one and the same time, and a greater leverage is also obtained to release the lock than could be obtained with the ordinary thumb-latch, in which the power, fulcrum, and weight are on nearly the same horizontal plane and in which the pressure is downward by the thumb alone, while in my latch the power is located in the same or almost the same perpendicular plane as the fulcrum and the weight and the fulcrum in almost the same horizontal plane, one arm of the lever being at nearly right angles with the other.

I have shown the preferred form of applying my device—that is, within the handle of a door; but it is evident that the latch may perform both functions of a lever to release the bolt of the lock and of a handle for opening a door—*i. e.*, by breaking off the handle in the drawing shown at a point *x x* and finishing it off or in any other manner preserving such a latch as by which the bolt of the lock may be released and the door opened in substantially the manner described.

What I claim as my invention is—

1. In a door-latch, the combination, with the handle of a door, of a lever in which the fulcrum is located between the power and the weight, one arm passing through the door in contact with the bolt of the lock and the other arm extending upward or downward within the handle, so that the handle and lever may be grasped by the hand at one and the same time, substantially as and for the purpose hereinbefore set forth.

2. In a door-latch, the combination, with the handle of a door, of a lever in which the fulcrum is located at a point on the handle itself, between the power and the weight, one arm passing through the door in contact with the bolt of the lock and the other arm extending upward or downward within the handle, so that the handle and lever may be grasped by the hand at one and the same time, substantially as and for the purpose hereinbefore set forth.

This specification is signed and witnessed this 12th day of March, A. D. 1889.

ANDREW O'KEEFE.

Witnesses:

JOHN DALGLISH,
C. FORST.