(No Model.)

# P. MAY.

## LATCH.

No. 407,227. Patented July 16, 1889.

Fig. 1.

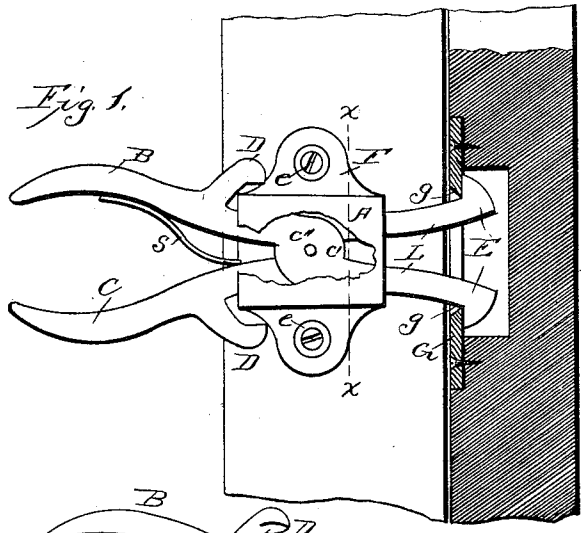



Fig. 2.

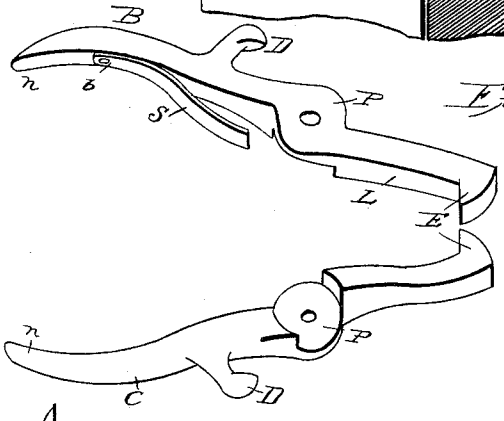



Fig. 3.

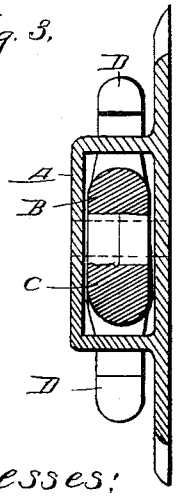
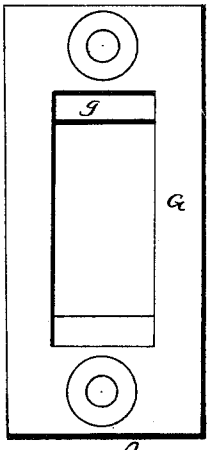



Fig. 4.




Witnesses:
E. C. Duffy
H. B. Peck.

Inventor:
Philip May,
per O. E. Duffy
Attorney

N. PETERS, Photo-Lithographer, Washington, D. C.

# UNITED STATES PATENT OFFICE.

PHILIP MAY, OF TERRE HAUTE, INDIANA.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 407,227, dated July 16, 1889.

Application filed December 24, 1888. Serial No. 294,542. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP MAY, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Latches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to certain improvements in gate-latches.

The object of the invention is to provide an improved gate-latch of that peculiar class wherein a pair of pivoted spring-levers having catches at their ends are adapted to engage a catch plate or lug, exceedingly cheap and simple in construction, composed of a minimum number of strong and durable parts and overcoming certain objections to said old latches. These objects are accomplished by and the invention consists in certain novel features of construction, and in combinations of parts hereinafter described, and pointed out in the claim.

Referring to the accompanying drawings, Figure 1 is an elevation, partly in section, of a gate-post and a portion of the gate, showing the latch with its box partially broken away. Fig. 2 is a detail perspective view of the two catch-levers of the latch. Fig. 3 is a cross-section on the line $x$ $x$, Fig. 1. Fig. 4 is a detail elevation of the catch-plate.

In the accompanying drawings, the letter A indicates a box or frame consisting of a front and a rear plate and a top and bottom. At the back side of the box, extending one upward, the other downward, are two extensions, forming lugs or ears F F, having perforations $e$ $e$, to receive screws or similar fastenings. The sides or plates of the box are perforated at the center $c'$ for receiving a screw or pivot, for purpose hereinafter set forth.

The letters B and C each indicate a lever, of which the following is a full description: A piece of metal consisting of a handle $h$, a center plate P, and an arm L. The arm L is provided at its outer end with a lateral and outwardly-extending head or catch E, said catch having its outer side beveled, so as to form a smooth curved surface and a sharp edge at end of lever, thus allowing an easy engagement with the catch-plate hereinafter described. Upon the outer side of each handle $h$ is a catch-lug or stop D, said catch-lug being so situated as to engage the top (or bottom) of the box A, for purpose hereinafter set forth. The center plates P and P are halved, as shown in Fig. 2, thus allowing them to fit and work together in the manner of tongs. Placed thus together the two levers are passed through the box A until the perforations $c'$ in the box and levers register, in which position they are held by a pivot $c$—such as a screw, nail, or the like—the levers working upon said pivot as an axle or fulcrum.

The letter S indicates a steel spring, which is fastened to the handle of lever B, at $i$, by rivets or screws. Said spring is bent into such form as to engage and operate against the lever C coming in contact with the same upon the inside of the box A. The spring thus holds the ends of the two levers apart from each other.

The letter G, Fig. 4, indicates a catch-plate similar to other catch-plates, and will need no explanation other than that the edges $g$ $g$ of the opening are beveled to correspond to the beveled edges of the catches E E, thus allowing an easy engagement of same. As the two levers cross and fit into each other, but one screw is necessary to form a pivot for and secure the same, which screw also assists in securing the inclosing box or casing A by passing through its front and rear walls or plates, and, further, as the inclosing-box A is provided with front and rear plates, the pivotal points and the bearing-centers P of the catch-levers are inclosed, and thereby protected from the weather, the elements, and foreign obstructions.

The lost motion so inconvenient and disadvantageous in most latches is overcome in the present construction by the stops or catch-lugs D D, which, while allowing a free and easy movement of the levers sufficient to release them from the plate G, allow no further movement, for as the levers are released from said plate the catch-lugs engage the upper and

lower edges of the box and arrest further movement of the levers in that direction.

The operation of the invention is extremely simple and requires no extended explanation. The construction is simple and substantial. The principal parts being formed of castings, it follows that the device may be manufactured at a trifling expense. It is easily applied to any ordinary gate, door, transom, or similar fixture.

I claim—

The combination, in a gate-latch, with a box having front and rear plates, of a pair of catch-levers having outwardly-extending lugs on their front ends, said levers passing through said box, a screw entering the box and serving as a pivot for the levers, a stop formed on each lever projecting forwardly over the edges of the box, and a spring secured to one lever with its free end pressing against the opposite lever, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

PHILIP MAY.

Witnesses:

ROBERT B. STIMSON,

GEO. M. DAVIS.