

W. H. KEY.
GATE-LATCH.

No. 171,731.

Patented Jan. 4, 1876.

Fig. 1.

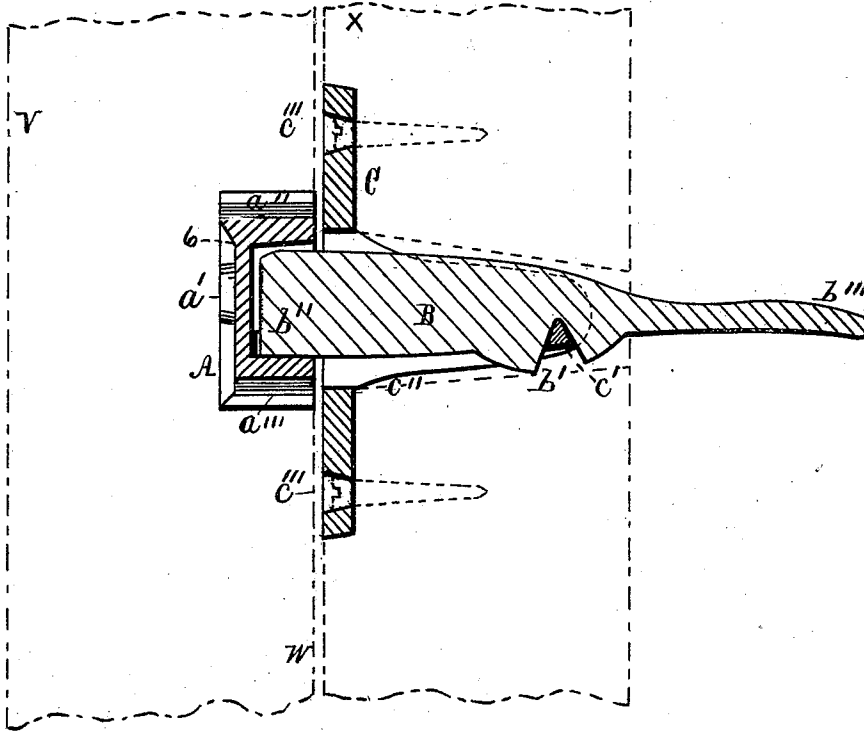


Fig. 2.

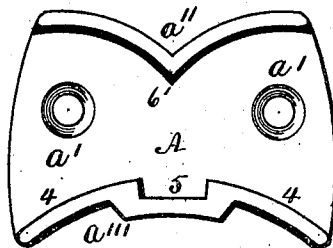


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. KEY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN GATE-LATCHES.

Specification forming part of Letters Patent No. **171,731**, dated January 4, 1876; application filed December 8, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. KEY, of the city of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Latch-Catches, of which the following is a specification:

The object of my invention is to afford a more simple, durable, and reliable catch for the latch of a swinging gate or door, by the construction of a cast-metal plate with an upper and a lower flange on the face side of the plate, the lower flange being notched or recessed downward to receive the drop end of the latch, and also provided with an inclined plane, sloping downward from each of the two upper edges of the said notch, and an upper flange being curved downward, so as to produce a fixed double-inclined stop directly above the middle of the notch, so that when the usual swinging gate or door is swinging from either side into contact with the catch, the stop thereof will prevent the latch from passing the notch by compelling the former downward into the latter, as will be more clearly explained with reference to the accompanying drawing, in which—

Figure 1 is a vertical section of the catch in juxtaposition with a drop-latch; Fig. 2, a front or face view of the catch; and Fig. 3, a vertical transverse section of the drop end of the latch, the dotted lines *v w* and *x y* indicating, respectively, the upright stationary post, gate or door frame.

The catch A is intended to be cast of metal in one complete piece, provided with countersunk holes *a' a''* for the heads of wood-screws, whereby it can be fastened permanently in a recess cut in the post, so as to bring the edges of the flanges *a'' a'''* flush with the same side of said post, as indicated in Fig. 1. The numerals 4, 4, and 5, respectively, represent the two inclined planes and the notch or recess for the drop end of the latch, and the numeral 6 represents the stop formed by the downward-curved portion of the upper flange *a''*. The latch B has a Λ -shaped notch, *b'*, in its under edge, whereby the downward-tilting end *b''* is supported upon a wedge-shaped fulcrum, *c'*, and the drop end of said latch is at the same time supported and guided in its upward and downward movements by an oblong

mortise or opening in the holder C, which is provided with two like projections, *c''*, for receiving and supporting the fulcrum *c'*, and the latch also, between the said projections, as represented in Fig. 1. The holder C is intended to be inserted in the upright of the gate, and secured by wood-screws in the countersunk screw-head holes *c''' c'''*, so that the fingered end *b'''* shall project through the upright sufficiently to be handled in lifting the latch, and so also as to bring its face side flush with the upright of the gate or door, as represented in Fig. 1.

The operation of my invention is as follows, viz: In opening the gate or door the person lifts the drop end of the latch B by pressing on the handle end *b'''*, and pushes the gate or door open. On letting it swing shut the drop end *b''* of the latch B slides up the inclined plane 4 on that side of the catch A, strikes against the downward-curved projection of the stop 6, and thus arrests the further closing movement of the gate or door, and immediately afterward the drop end of the latch B falls by gravitation into the notch 5, and thus holds the gate shut, and at the same time leaves a narrow space between the upper edge of the latch and the lower edge of the stop 6, so that the drop end of the latch can be again lifted, as before, to open the said gate or door toward either direction. A simple round pin may be used in a round hole through the latch, instead of the wedge-shaped fulcrum *c'* and the Λ -shaped notch *b'*; but as the latter does not require any filing or drilling it is cheaper and answers the purpose as well, and is not liable to get out of order in use.

I claim as my invention—

The catch A, having the stationary lower flange *a'''*, provided with the fixed or immovable notch 5 and inclined planes 4 4, and the stationary upper flange *a''*, provided with the fixed stop 6, the said parts being constructed and arranged to operate upon the latch B in the manner described.

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Witnesses:

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