

JOHN H. LEE.

Improvement in Gate Latches.

No. 119,374.

Patented Sep. 26, 1871.

Fig. 1.

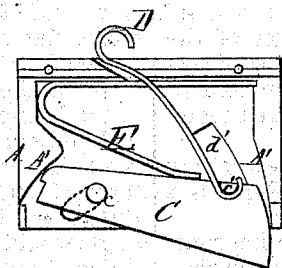


Fig. 2.

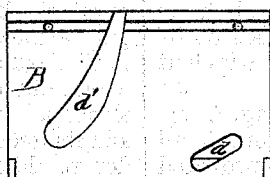
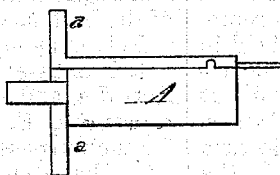


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN H. LEE, OF MARSHALL, TEXAS.

IMPROVEMENT IN GATE-LATCHES.

Specification forming part of Letters Patent No. 119,374, dated September 26, 1871.

To all whom it may concern:

Be it known that I, JOHN H. LEE, of Marshall, in the county of Harrison and State of Texas, have invented a new and valuable Improvement in Gate-Latches; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of my latch with the side plate removed. Fig. 2 is a side view. Fig. 3 is a detail.

This invention has relation to certain improvements in gate-latches; and the novelty consists in the construction and novel arrangement of devices, as hereinafter described; the object being to provide a self-closing latch, simple in its construction and easy of operation, and therefore well adapted to the purpose for which it has been designed.

Referring to the accompanying drawing, A represents the latch-case, constructed to contain all the working parts of the latch, and provided with a covering-plate, B. The latch is secured to the front end of the gate by being inserted in a suitable recess cut horizontally, and is fixed in place by means of screws placed through the flanges *a a* and turned into the gate. C represents a tapering or wedge-shaped bolt, held in place by means of two vertical pins, *c c'*, the projecting ends of which enter curved slots *d d'* cut in the top and bottom plates of the lock-case. This arrangement of the bolt permits it to turn in and out as on a pivot, and guides it in the proper direction. D represents a looped rod, connected at its inner end to the pin *c'*, and extending back through the lock-case and gate-batten to be within reach of the operator. This rod is designed for the purpose of drawing back the bolt to open the gate. E indicates a spring to press the bolt forward. The bolt projects, and falls back when the gate is slammed. The two opposite ends of the bolt are slightly rounded

and fitted to the rounded formation of the case recess. The two parts of the lock-case are fitted together by means of a tongue and grooves. The relative formations of the bolt C and lock-recess are peculiar, the object being to throw the forward end of the bolt outward on as near a horizontal line as possible, in order that it may accommodate itself to the shrinkage of the gate.

When the gate is closed the side of the recess in the gate-post is against the forward projecting end and curved portion of the bolt. Hence, if the bolt were arranged to work on a center, its forward end traveling on the circumference, the further out it is moved the nearer its projecting angle would approach the middle point and keep the gate out of line correspondingly. When the gate is closed the bolt projects far enough only to enter the recess adapted to receive it and touch the back part of it. Consequently, if the gate expands and is brought nearer the gate-post, the distance which the bolt projects is lessened, and the contrary is the result if the gate shrinks. In either case the "line" of the gate adapts itself to the position of the bolt. In order to obtain the desired result I arrange my bolt to move according to the direction of certain slots, but not in a circle, and guide it by means of stationary cam formations of the recess marked A' and corresponding curves on the ends of the bolt, as clearly shown in the drawing.

I claim as my invention—

1. The case A with cover B, constructed with slots *d d'* and cam surface A, bolt C with pins *c c'*, spring E, and rod D, all arranged as and for the purpose specified.

2. The catch-bolt C, provided with sliding pivots and governed in its movement by the oblique guide-surface A, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN H. LEE.

Witnesses:

D. D. KANE,
F. B. CURTIS.

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