

(No Model.)

L. S. STOLL.

GATE LATCH.

No. 339,594.

Patented Apr. 6, 1886.

Fig. 1.

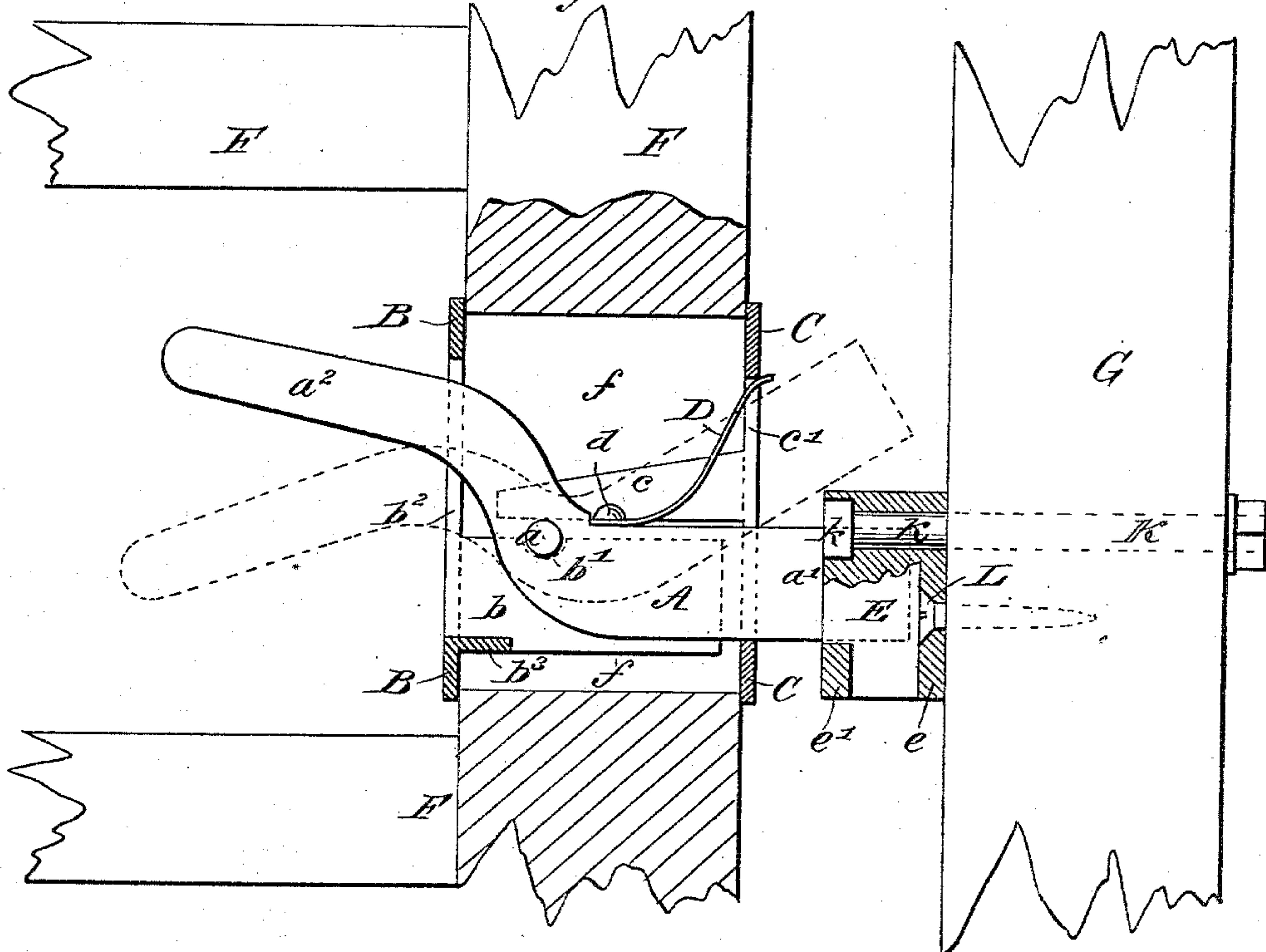


Fig. 2.

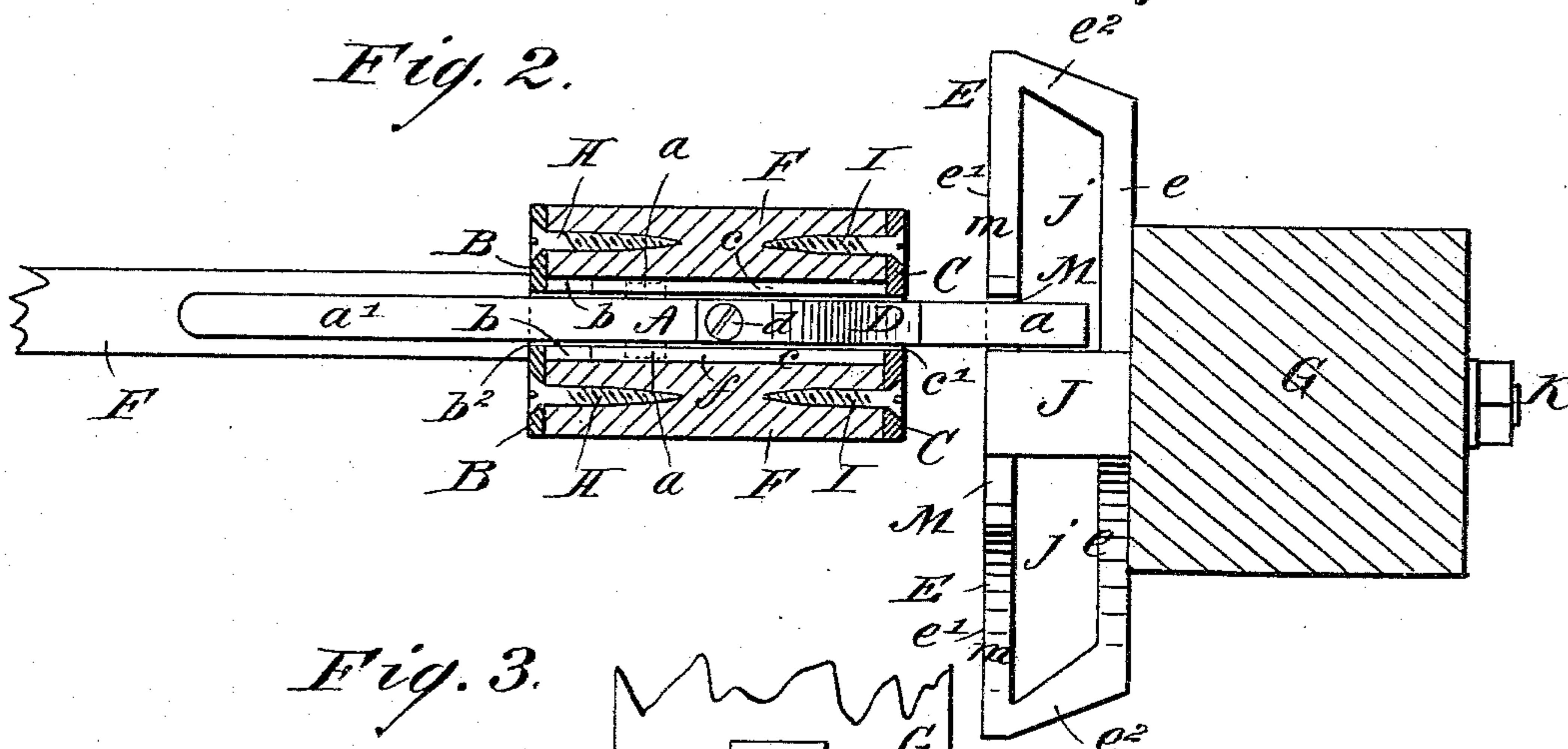


Fig. 3.

WITNESSES:

Donn Twitchell.  
C. Sedgwick

INVENTOR:

L. S. Stoll

BY

Munn & Co.

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

LOUIS S. STOLL, OF ARCADIA, IOWA.

## GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 339,594, dated April 6, 1886.

Application filed January 20, 1886. Serial No. 189,225. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS S. STOLL, of Arcadia, in the county of Carroll and State of Iowa, have invented a new and Improved Gate-Latch, of which the following is a full, clear, and exact description.

My invention relates to latches more especially intended for use with fence-gates, and has for its object to provide a simple, inexpensive latch which may be readily applied to new or old gates, and will effectively and automatically latch the gate when it is swung shut from either side of the fence.

The invention consists in certain novel features of construction and combination of parts of the gate-latch and its arrangement with the gate and latch posts, all as hereinafter fully set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly broken away, of adjacent parts of a gate and latch post with my improved latch applied, and shown in vertical sectional elevation, and in position for latching the gate. Fig. 2 is a sectional view thereof; and Fig. 3 is a face view of the latch, catch-plate, and part of the post to which it is fixed.

The latch consists of a bar or lever, A, two slotted and tongued plates, B C, a spring, D, and a catch-plate, E, with attaching screws and bolts, by which they are held to the gate F and the latch-post G at the side of the gateway, and as will now be more particularly described. The latch-bar A, which is a flat bar of metal shaped as clearly shown in Fig. 1, has a pivot-pin, *a*, at each side, which pins rest in recesses or notches *b'*, formed in the upper edges of a pair of parallel tongues, *b b*, which are cast onto the inner face of the plate B—one at each side of a slot, *b²*, in said plate, and through which slot the inner or handle end, *a'*, of the latch-bar passes. A web, *b³*, cast between the tongues *b b* next the face-plate B, strengthens the parts. The plate C, which has a slot, *c'*, through which the latching end *a'* of the bar A passes, also has a pair of inwardly-projecting parallel tongues, *c c*, cast on it, and said tongues reach inward far enough to stand above the pivot or fulcrum pins *a a* of latch-

bar A and hold said pins down into the notches *b'* of the tongues *b* of plate B. A spring, D, is held at one end at *d* to the top of the latch-bar A, and at its free end presses against the top or end wall of the slot *c'* in plate C, to force the outer end, *a'*, of the latch-bar downward.

In fitting or attaching the parts A B C D to the gate F, the plate B will be fastened to the inner edge of the gate-post, with its tongues *b b* entered into a slot, *f*, of the post, and will be fastened to the post, preferably, by four screws, H—two at each end of the plate. The latch-bar A, with the spring D attached, will then be passed into the gate-post slot *f* until its pivot-pins *a a* enter the notches *b'* of tongues *b*, and the plate C will then be fastened to the outer edge of the gate-post, preferably, by four screws, I—two at each end of the plate—and with the tongues *c c* entering the slot *f* above the pivots *a* of bar A. With this construction and arrangement of parts A B C D they may be applied readily to either a new or old gate in which the slot or mortise *f* has been made. The catch-plate E is formed with a back plate, *e*, sloping each way from a central solid stud or lug, J, through which and the latch-post G a bolt, K, having a square head, *k*, fitting a recess in the stud, passes, to hold the catch-plate to the post, screws L L also being passed through the back plate, *e*, to prevent turning of the catch-plate on its main fastening-bolt K, and assist said bolt in holding the catch-plate to the post. The front plate, *e'*, of the catch-plate E is connected to the lug J and to the extremities of the back plate, *e*, by short flaring end pieces, *e² e²*, thus providing a very solid support for the outer plate, *e'*, and also forming vertical slots or spaces *j* between the plates *e e'*, at opposite sides of the lug J, through which slots snow or dirt may pass freely, and whereby the notches or recesses M M, made in the upper edge of plate *e'*—one at each side of the lug J—will not become filled up or clogged, so as to prevent entrance at the end *a'* of the latch-bar A into one or the other of said notches as the gate swings shut from either side, the latch-bar then riding up one of the inclined edges or faces *m* of plate *e'*, leading to the opposite notches M M. When the gate is swung toward the post G from either side, the latch-bar A will



certainly be stopped by the lug over one of the notches M, and will be forced therein by the spring D; and to assist in effecting the positive latching of the gate to the post G, I undercut the sides of the lug J, or taper it downward, (see Fig. 3,) whereby when the end *a* of latch-bar A strikes the inclined side face of the lug the bar will be canted inward at the lower edge to give the spring D a better chance to force the latch-bar into the notch M before the gate could rebound.

To unlatch the gate it only is necessary to press the end *a* of the latch-bar downward to lift the bar from the notch M, as shown in dotted lines in Fig. 1, and the gate may then be swung open on its hinges to either side of the fence.

It is obvious that the parts A B C E of the latch may be made cheaply in cast metal, and will be strong, durable, and effective in use.

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

1. In gate-latches, the gate-fixtures constructed substantially as herein shown and described, and comprising a plate, B, provided with tongues *b b*, having notches *b' b'* and a slot, *b<sup>2</sup>*, a plate, C, provided with tongues *c c* and slot *c'*, a latch-bar, A, having pivot-pins *a*, adapted to notches *b'*, and a spring, D, pressing the outer latching end of bar A downward, when the parts A B C D are assembled in relation to each other and to a slotted gate-post, as and for the purposes herein set forth.

2. In a gate-latch, the catch-plate E, formed with a stop-lug, J, projecting upward from its top edge, and notches M M in said upper edge, on opposite sides of the lug, the said upper edge tapering downward in opposite directions from the said notches, substantially as set forth.

3. In a gate-latch, the catch-plate E, formed with two notches, M M, in its upper edge, and the stop-lug J, projecting from said upper edge between the notches, and tapering downward and inward from its upper end, the top edge of the catch-plate being inclined downward and outward in opposite directions from the notches M M, substantially as set forth.

4. In gate-latches, the catch-plate E, made with plates *e e'*, a central stop-lug, J, providing spaces *j j*, opposite inclines *m m* on plate *e'*, and notches M M in plate *e'* at opposite sides of the stop-lug J, substantially as and for the purposes herein set forth.

5. In gate-latches, the combination, with the catch-plate E, provided with a stop-lug, J, inclines *m m*, and notches M M, substantially as specified, and the latch-post G, of a bolt, K, having a square or flat-sided head, *k*, fitting a recess in plate E, and the screws L L, substantially as and for the purposes herein set forth.

6. The combination, with a gate, as at F, provided with a slot, *f*, and the latch post G, of a plate, B, having tongues *b b*, notched at *b'*, and a slot, *b<sup>2</sup>*, the latch-bar A, having pivot-pins *a*, resting in the notches *b'*, a plate, C, provided with tongues *c c* and slot *c'*, a spring, D, on latch-bar A, and pressing its outer end, *a'*, downward, and said plates B C secured to the gate-post, substantially as specified, and a catch-plate, E, formed with plates *e e'*, a central stop-lug, J, inclines *m m*, and notches M M, and said plate E secured to the latch-post G, substantially as shown and described, and for the purposes herein set forth.

LOUIS S. STOLL.

Witnesses:

A. C. HARDEN,  
C. A. BEITENMAN.