S. A. SLAUSON.

GATE LATCH.

APPLICATION FILED JUNE 25, 1913.

1,174,629.

Patented Mar. 7, 1916.

Fig. 1.

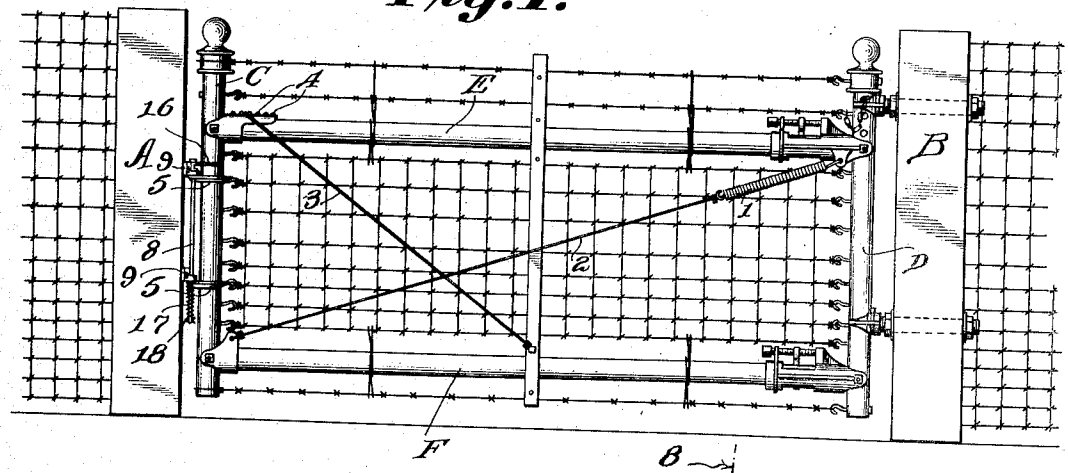


Fig. 2.

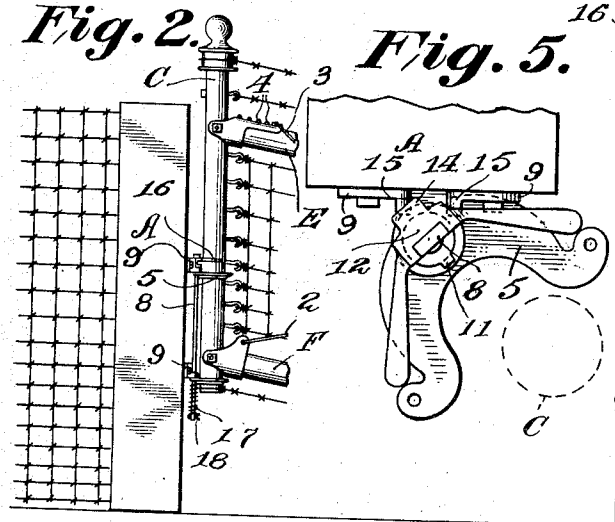


Fig. 5.

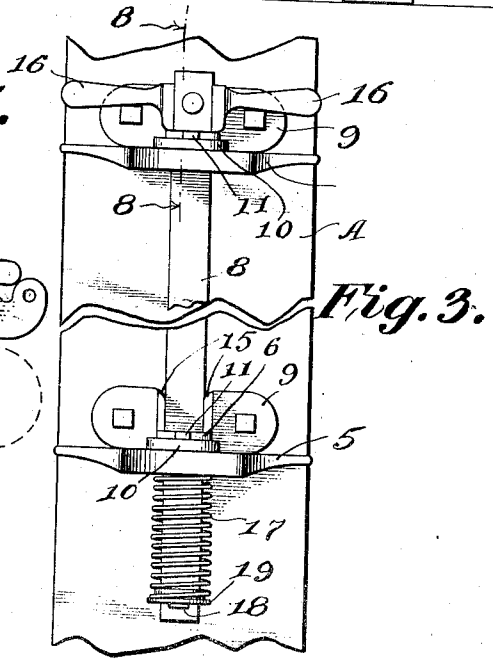


Fig. 3.

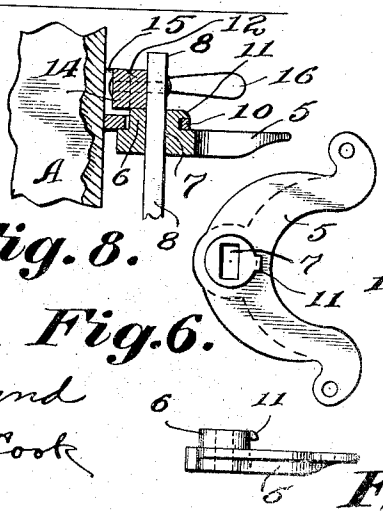


Fig. 8.

Fig. 6.

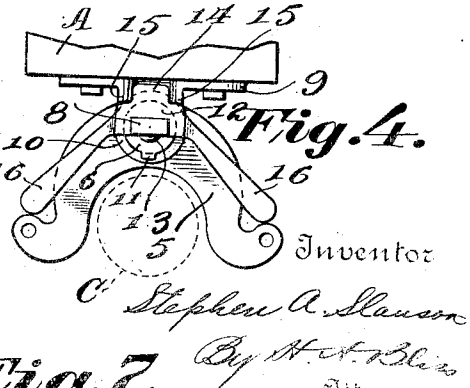


Fig. 4.

Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

STEPHEN A. SLAUSON, OF CEDAR RAPIDS, IOWA.

GATE-LATCH.

1,174,629. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed June 25, 1913. Serial No. 775,828.

To all whom it may concern:

Be it known that I, STEPHEN A. SLAUSON, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Gate-Latches, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in gate latches and in particular to a latch for engaging the swinging post of a folding swing gate.

The latch is constructed so that the gate may be swung open in either direction and when pushed into closed position automatically engages the latch which locks it in closed position. Latches of this general form are well known, but I have devised mine in such a way that there is no possibility of the latch failing to engage when the gate is in closed position and permit the gate to swing by.

A further advantage is the positioning of the engaging forks on the latch in such a way that when the free end of the gate is swung or folded to a position in which the latch end of the gate is the same distance from the ground, its operation is not interfered with.

My improved latch is simple in construction, the post engaging forks being duplicates and the entire latch being readily assembled and mounted in position.

In the drawings, Figure 1 shows a side elevation of my improved latch as mounted on a fence post and engaging the tubular gate post. Fig. 2 is a view similar to Fig. 1 showing the latch end of the gate elevated or folded to a position above the ground. Fig. 3 is a front view of my improved latch, parts of the center being broken away. Fig. 4 is a plan view of the latch when in normal locked position. Fig. 5 is a view similar to Fig. 4 showing a latch swung to permit the opening of the gate. Fig. 6 is a plan view of one of the gate engaging forks detached from the latch mechanism. Fig. 7 is a side elevation of the fork shown in Fig. 6. Fig. 8 is a vertical fragmentary sectional view on the line 8—8 of Fig. 3.

Referring to the drawings, the letters A and B indicate two vertical fence posts between which is swung a folding gate. This gate comprises the vertical tubular posts C and D held in spaced relation by the horizontal bars E and F. The ends of the bars E and F are pivotally connected to the posts C and D to permit folding of the gate in order to raise the latch end above the ground as is oftentimes desirable in order to permit small live stock to pass through the gate without permitting the passage of larger animals. A coil spring 1, one end of which is connected to the upper corner of the gate adjacent the pivotal post D, has its other end connected to a wire 2 extending to the lower diagonally opposite corner of the gate. This causes the front or latch end of the gate to normally have a tendency to raise, and in order to control this movement and permit the elevation of the front only when desired, a tension or lock wire 3 extends midway of the lower portion of the gate upward to the corner of the gate opposite to that to which the swing end is connected and there engages a series of notches 4.

The gate engaging members of the latch comprise two forked pieces 5 provided with upward extending collars 6. A rectangle opening 7 is formed in each of the collars 6 extending down through the forks 5, and a lug 11 is formed on its upper front edge. A vertical flat bar 8 is slid through the opening 7 on two of the forks and fits loosely therein so as to permit longitudinal movement of the bar within the forks. Secured to the fence post A are two latch-carrying brackets 9 having outward extending shoulders 10 provided with openings of a diameter somewhat greater than that of the collars 6. These shoulders 10 provide pivotal supports for the forks 5. As previously stated, the opening in the shoulder 10 is of a diameter somewhat greater than that of the collars 6, and as the shoulder 10 is of comparatively thin metal, the collar 6 with its lug 11 can, by tipping the fork 5, be inserted through the opening and when swung back to a horizontal plane, the lug 11 will extend over the edge of the shoulder 10 and hold the fork in position. The forks are in this manner pivotally mounted in the brackets.

A latch member 12 is secured by the rivet 13 to the upper end of the rod 8 and is provided with a rearward projection 14 which normally rests in the opening formed between the two vertical walls 15 extending upward from the bracket 9. Handles 16 extend outward from the latch member 12 at each side of the post. A spring 17 is

positioned over the lower end of the rod 8 and its upper end held tightly against the lower fork 5 by means of a cotter pin 18 and washer 19 carried at the lower end of the rod.

The spring 17 normally holds the rod 8 down and secures the latch member 14 between the walls 15 of the upper bracket 9. In order to open the gate one of the handles 16 is grasped and moved upward carrying with it the rod 8 and the latch member 12. When the latch member is raised to a position so that the extension 14 is above the tops of the walls 15, the rod, latch member, handles, and all may be swung in either direction carrying with them the gate engaging forks 5 thus permitting the gate to be swung open. The latch is then left in this position. When the gate is swung closed, the post C engages with the two forks 5, swinging them into the normal central position whereupon the spring 17 draws the rod 8 down, carrying the extension 14 into the socket between the bracket walls 15. The gate is thus locked in its closed position and it is impossible for the gate to swing by and open on the other side as is frequently the case with forms of latches now in use. The forks 5 are spaced a considerable distance apart on the rod 8 so as to permit the gate to be lifted, as in Fig. 2, and still permit the engagement of the forks with the post. This is of a particular advantage in folding gates of the type illustrated.

I do not herein claim any of the novel features of structure which characterize the gate, the claims herein being limited to matters incident to the latch; having filed another application Serial No. 775,827, on June 25, 1913, wherein are presented claims pertaining to the gate.

What I claim is:—

1. A gate fastener comprising a supporting bracket, a fork pivoted for swinging connection with the post of a gate, a rod having a portion of non-circular cross section slidable through an aperature in the said fork, a latch carried by the rod and adapted to normally rest within a notch in the bracket, and resilient means for normally holding said rod in the position with the latch in the notch.

2. In a gate fastener comprising a fork pivoted for swinging connection with the post of a gate, a bracket in which the said fork is pivotally mounted, a rod having a portion of non-circular cross section vertically slidable through an aperture in the fork, a latch member mounted on the upper end of the rod and adapted to rest normally within a notch formed in the bracket, and a spring engaging the rod to normally hold it in the position with the latch in the notch.

3. A gate fastener comprising a fork pivoted for swinging connection with the post of a gate, a bracket within which said fork is pivoted, a rod having a portion of non-circular cross section keyed to the fork but vertically slidable in a corresponding non-circular aperture therein, a latch member secured on the upper end of the rod and adapted to normally rest within a notch formed in the bracket, a spring positioned on the rod to normally hold it in the position with the latch in the notch, and latch operating handles diverging from each side of the said latch member.

4. A gate fastener comprising two forks pivoted for swinging connection with the post of a gate and spaced vertically one from the other, brackets within which each of the forks are pivotally mounted, a rod having a portion of non-circular cross-section vertically slidable through apertures in the said forks and brackets, a latch member secured on the said rod and normally resting within a notch formed in one of the brackets, and a spring positioned on the rod to normally hold it in the position with the latch in the notch.

In testimony whereof I affix my signature, in presence of two witnesses.

STEPHEN A. SLAUSON.

Witnesses:

M. R. ZILA,

G. P. LINVILLE.