No. 733,208. PATENTED JULY 7, 1903.

J. J. HYNDING.

GATE LATCH.

APPLICATION FILED OCT. 14, 1902.

NO MODEL.

Fig. 1.

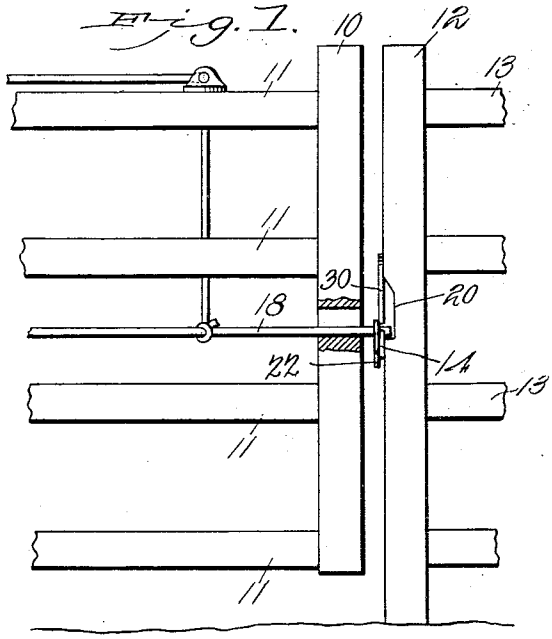


Fig. 2.

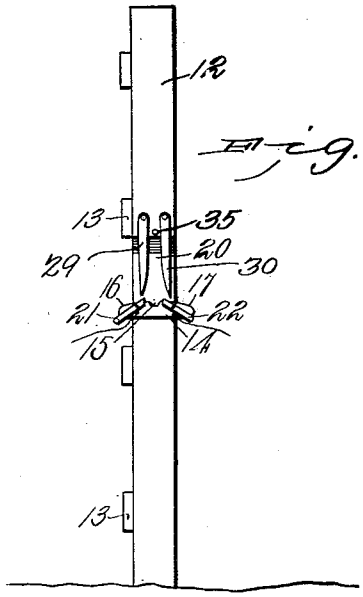
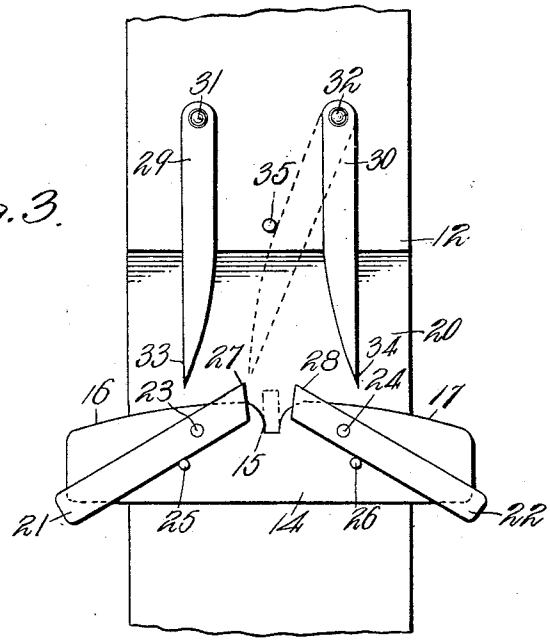


Fig. 3.



Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 733,208. Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

JESSE J. HYNDING, OF FERNDALE, CALIFORNIA.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 733,208, dated July 7, 1903.

Application filed October 14, 1902. Serial No. 127,306. (No model.)

To all whom it may concern:

Be it known that I, JESSE J. HYNDING, a citizen of the United States, residing at Ferndale, in the county of Humboldt and State of California, have invented a new and useful Gate-Latch, of which the following is a specification.

This invention relates to gate-latches, and has for its object the production of a simply-constructed and easily-operated device, whereby the gate may be automatically latched and effectually prevented from reverse movement and means provided whereby the latch member is guided into the latch-engaging means.

The invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claim.

In the drawings illustrative of the invention, Figure 1 is a side elevation of a portion of a gate at its free or swinging end and the adjacent gate-post with the improvements applied. Fig. 2 is a side elevation of the post, as shown in Fig. 1. Fig. 3 is an enlarged detail view of a portion of a post with the improved devices applied thereto.

The device may be applied to any of the ordinary forms of farm and similar gates which are constructed to swing transversely of the gateway-opening, and more particularly to that style of gate arranged to swing in both directions, and for the purpose of illustration the invention is shown applied to a conventional gate and one of the adjacent posts of the ordinary construction; but it will be obvious that the improvement may be applied to any of the ordinary swinging gates, and I do not, therefore, wish to be limited in the application of the invention to any specific form of gate or gate-post.

In the drawings a portion of a gate is shown, 10 representing the end member, 11 the longitudinal rails, and 12 the adjacent stationary fence-post, having the usual longitudinal fence-rails 13 attached thereto.

Secured transversely of the face of the post 12, adjacent to the end member 10, is a latch-plate 14, having a centrally-disposed socket 15, the upper surface of the plate 14 being reversely inclined, as indicated at 16 17, and forming inclined guides to conduct the movable latch member (indicated at 18) into the socket.

The post 12 will preferably be provided with a recess 20 opposite the plate 14 and extending upward therefrom to provide a passage-way transversely of the post for the free or outer end of the latch member 18, so that a considerable degree of longitudinal play may be given to the latch member before it will be detached from the socket-plate. By this means the gate portion or the fence portion may move to a considerable extent away from each other before the latch member will become detached from the socket-plate. This is an important feature of the invention and will effectually prevent relative displacement or longitudinal movement between the post and the gate portion from affecting the relative action of the latch member and the socket member.

Pivotally attached to the plate 14 upon opposite sides of the socket 15 are trip-levers 21 22, the latter movably engaged to the plate 14 by the pivots 23 24, as shown, and provided with stop-pins 25 26 to limit their movement in one direction, while at the same time leaving them free to be moved in the opposite direction.

It will be noted by reference to Fig. 3 that the pivot-pins 23 24 are nearer one end of the trip-levers than the other, so that the longer ends will maintain the shorter ends of the levers normally in their upward positions and extending for some distance above the upper surfaces of the inclined portions 16 17, as indicated at 27 28. The inner adjacent ends of the levers 21 22 are disposed vertically, as shown, so that when the latch member 18 engages the portions 27 or 28, as the case may be, the trip-levers will yield and permit the latch member to pass into the socket, the vertical end of the opposite trip-lever forming a stop to prevent the passage of the latch member out of the socket. By this arrangement when the gate is swung from one direction it will depress one of the trip-levers and be engaged by the opposite lever, and thus prevented from passing entirely over the socket-plate, as will be obvious.

Pivotally supported upon the post 12 above

the trip-levers 21 22 are gravity stop-levers 29 30, the latter supported movably by the pivots 31 32, with their free ends 33 34 in close proximity or swinging partially behind the upper ends 27 28 of the trip-levers 21 22, as shown. Intermediately disposed between the gravity-levers 29 30 is a stop 35, with which the gravity-levers engage from opposite sides when moved inward.

The stop 35 will be so disposed that when the levers 29 30 are moved inwardly in engagement with the stop their outer edges will not pass beyond the points 27 or 28, as the case may be, of the levers 21 22.

It will be noted that the latch member 18 in entering the socket 15 will strike one of the gravity-levers 29 or 30, as the case may be, at the same time that it engages a trip-lever and carries it inward until it strikes the stop 35, the further progress of the gate in that direction being thus stopped with the latch member directly over the socket, so that when the latch member falls it will be certainly guided into the socket, and when the latch member falls below the lower free end of the gravity-lever with which it has been engaged the latter is released and returns to its former position. The gravity-levers thus form guides to conduct the latch member into the socket and also as stops to prevent the gate being carried past the post. By this simple arrangement the gate cannot be carried past the post, while at the same time it can be swung freely in either direction by simply releasing the latch member in the ordinary manner, as the gravity-levers 29 30 offer no impediment to the usual operation of the gate in either direction. These gravity-levers, therefore, are important and valuable features of the invention and materially increase the efficiency of the gate and insure its perfect action under all circumstances.

The relative proportions of the parts may be varied to any desired extent to adapt the device to gates of various sizes, and I do not, therefore, wish to be limited to any specific proportion of parts, and reserve the right to make such modifications and changes as may be comprised within the scope of the claim.

Having thus described the invention, what is claimed is—

In a device of the class described, the combination with a gate-post, of a latch-plate secured thereto and provided with a latch-socket, a gate, a movable latch carried thereby and adapted to engage the socket, a pivoted gravity-lever adapted to guide the latch into the socket, a trip-lever pivoted to the latch-plate and a stop-pin for limiting the movements of the lever, said lever having its under face wholly free from obstructions; whereby the danger of an accumulation of foreign matter beneath the lever, rendering the same inoperative, is obviated.

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

JESSE J. HYNDING.

Witnesses:
J. M. HANSEN,
P. T. EARLY.