

UNITED STATES PATENT OFFICE.

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GATE-LATCH.

988,427.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed August 5, 1909. Serial No. 511,329.

To all whom it may concern:

Be it known that I, JAMES D. ANDERSON, a citizen of the United States, residing at Northport, in the county of Stevens and State of Washington, have invented certain new and useful Improvements in Gate-Latches, of which the following is a specification.

This invention relates to gate latches, and more particularly to a latch adapted for use with a horizontally swinging gate and has for its object to provide a latch adapted to allow engagement thereof with a gate, either inwardly or outwardly.

Another object is to provide such a device which will be simple in construction, and which may be manufactured at a low cost.

An important object is to provide such a device which may readily be installed upon any gate at a low cost and without the use of expert labor.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side view of the device, Fig. 2 is an end view, Fig. 3 is a top view, Fig. 4 is a view of the device engaged by a gate in closing.

Referring to the drawings, there is shown a gate post 10 carrying the latch frame 11 which comprises a rectangular portion 12 open at top and bottom and having at its inner side vertically extending portions 13 suitably perforated for the reception of fastening means engaged with the post 10. Transverse shafts 14 are mounted in the rectangular portion 12 spaced a slight distance inward from the ends thereof, upon which are loosely hung ring members 15, their inner portions being spaced from each other for the reception of a gate pin 16 as will be subsequently described. It will be noted that each end portion 17 of the rectangular frame extends in a vertical plane, its lower edge being spaced a slight distance below the shafts 14 and bearing against the outer periphery of the rings 15 in such a manner that they are prevented from oscil-

lating outwardly of each other, yet are held so that they will readily yield to inward pressure which will cause them to swing upwardly and allow the passage of an object therebeneath. Carried upon the upper extremities of the vertical portions 13 there is a pivot lug 18, above and laterally of which there are suitable check lugs 19. Pivoted upon the member 18, there are release members 20 comprising a central enlarged portion 21 centrally perforated and engaged revolutely upon the projection 18, each having an operating portion 22 extending upwardly therefrom and an oppositely disposed guide and lift portion 21', the outer end portion of which is disposed vertically, and provided with a vertically extending slot 22 in which the ring 15 is slidably disposed. The members 20 are stamped from sheet material and the slotted portion 22 is slit at its upper end to allow the engagement of the rings 15 therein which should preferably be solid and continuous. A suitable nut and washer is engaged with the projection 18 to hold the members 20 thereon for accurate movement in a constant plane.

It will be noted that the rings are so engaged with the shafts 14 and adjacent end portion of the frame that their axes are disposed slightly below the frame 12, so that approximately vertical and spaced portions are presented inwardly thereof for engagement with the pin 16 of the gate to prevent its lateral movement until the device is operated. It will also be noted that the members 20 are so adjusted that they engage with the lugs 19 to prevent downward movement of the portions 22 when the rings 15 rest securely in contact with the shafts 14 and adjacent end portions 17 of the frame. The lower end of the slot 23 is thus disposed slightly below the inner surface of the rings 15 so that none of their weight is taken from the supporting portion, and their secure engagement against yielding to movement of the pins 16 is thus assured.

In use, the gate is provided with a radial projection 16 which may be a continuation of the top bar A of the gate, as shown in Fig. 6, and the latch is properly disposed upon the gate post to allow the projection 16 to pass closely beneath the rectangular portion 12 so that the pendant portions of the rings 15 may be disposed on opposite sides of the projection when the gate is in closed position. It will be seen that tend-

ency of the gate to move outwardly will bring it into contact with the inner periphery of one of the rings horizontally outward against the end portion 17, and its yielding to the movement of the gate is resisted by the shaft 14 by reason of the downward pressure of the ring thereon. When it is desired to release the gate, for movement in either direction, the releasing portion 22 on the opposite side of the gate from that in which it is desired it should swing, is pressed downwardly which removes the proper ring 15 from the path of the projection 16. Upon closing of the gate, it will be seen that the rings 15 will yield to inward pressure by the projection 16, and moving upwardly in the guide portions 23, which will prevent their being inclined laterally and obviate binding engagement thereof within the frame or upon any projection.

In the place of the extension 16 of the top beam of the gate as shown in Fig. 6 a suitable pin may be driven into the end portion of the gate, this pin being shown in certain of the other views in the drawings.

By the construction provided, it is seen that the gate latch may be attached to the usual form of gate without special changes in the construction of such gate, and by reason of the simplicity of its parts, its durability and cheapness are assured.

What is claimed is:

1. A gate latch comprising a horizontally extending rectangular open frame including spaced side portions and connecting end portions, an upwardly extending member carried by one of the side portions, transverse shafts extending between the side portions, one adjacent to each end thereof, ring members loosely engaged upon the shaft, and depending normally therebelow for engagement of a gate pin therebetween, a lateral pivot lug carried by the upper end of the upwardly projecting member and extending over the frame, levers pivoted upon the said pivot lugs in spaced relation, said levers having finger pieces at one extremity and opposite sides of the pivot lug and hav-

ing their other end portions turned downwardly at abrupt angles and provided with slots, said ring members being engaged in the slots, and stops carried by the upper end of the upwardly projecting member, one at each side of the pivot lug, and extending over the levers in position to limit the downward movement of the slotted end portions of the said levers.

2. A gate latch comprising a horizontally extending open frame including spaced parallel side portions and connecting end portions, transverse shafts engaged in the side portions and extending therebetween, one of said shafts being located adjacent to each end portion, a ring member pivoted upon each shaft and depending normally below the frame, said ring member being located in spaced relation for the engagement of a gate pin therebetween, an upwardly extending member carried by one of the side members of the frame, a lateral pivot lug carried by the upper end of the upwardly extending member and projecting over the frame, a pair of operating levers pivoted concentrically upon the pivot lug and lying normally in crossed relation and diagonally of the upwardly extending member, each of said operating levers having a finger piece at its upper outer end, said manipulating levers being located adjacent to opposite sides of the frame and in spaced relation to each other and having their lower end portions turned inwardly and extended downward and provided with slots, said rings being slidably engaged in the slots for free upward movement with respect to the manipulating levers and for upward movement with the manipulating levers when the finger pieces are depressed, and stops arranged for engagement of the manipulating levers to limit the downward movement of the slotted portions thereof.

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

JAMES D. ANDERSON.

Witnesses:

RAYMOND HALL,
W. T. TROUT.