J. L. HOOVER.

GATE LATCH.

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1,259,018. Patented Mar. 12, 1918.

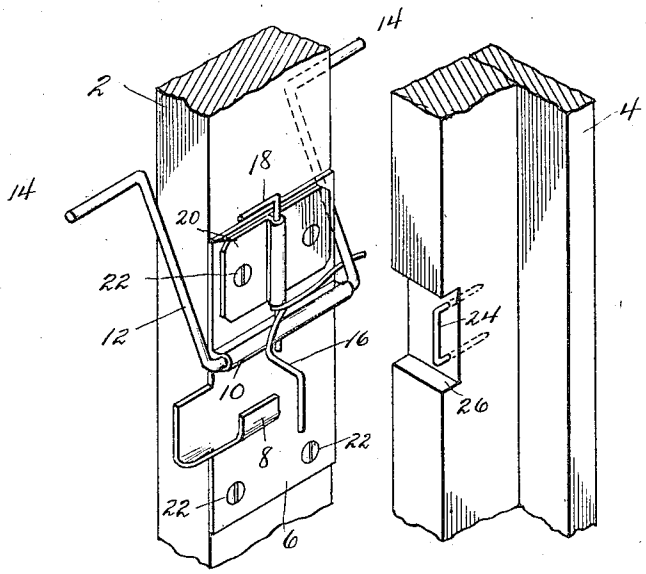


Fig. 1.

Fig. 2.

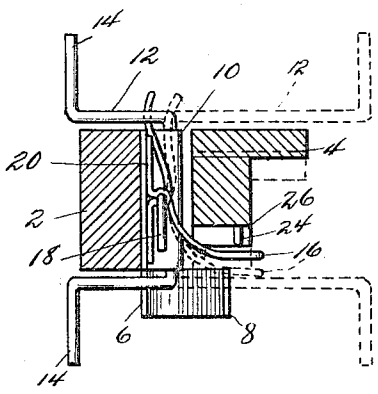
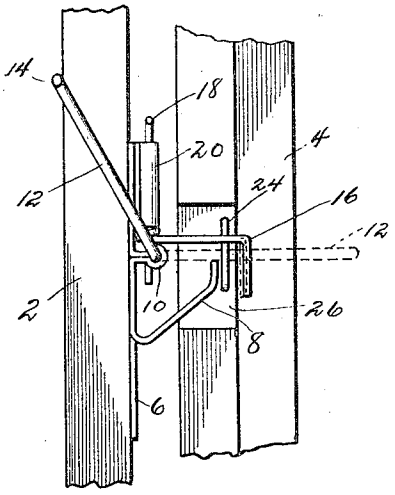


Fig. 3.



WITNESS:

R. S. Hamilton

INVENTOR.

John L. Hoover,

BY Chas. C. Gerard

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN L. HOOVER, OF NOEL, MISSOURI, ASSIGNOR OF ONE-FOURTH TO JAMES E. BAKER AND ONE-FOURTH TO JOHN C. BESCHER, BOTH OF NOEL, MISSOURI.

GATE-LATCH.

1,259,018. Specification of Letters Patent. Patented Mar. 12, 1918.

Application filed June 18, 1917. Serial No. 175,441.

To all whom it may concern:

Be it known that I, JOHN L. HOOVER, a citizen of the United States, residing at Noel, in the county of McDonald, State of Missouri, have invented certain new and useful Improvements in Gate-Latches, of which the following is a full and exact specification.

This invention relates to latching devices, and aims to provide an improved construction of gate latch, wherein provision is made for automatic operation of the latch as the gate is closed. To this end, the construction comprises a latch member provided with latch-throwing means adapted to be engaged by the gate as it is moved into closed position and operated thereby to throw the latch into proper latching engagement with the gate.

It is also sought to devise a latching structure in which the latch-throwing device acts not only to operate the latch automatically, as stated, but also as a support for said latch when in unlatched position.

It is a further object to provide a latch construction having bracket supporting means so arranged as to provide a stop acting both as a limiting stop for the gate and also as a rest for engaging and holding the latch when it is thrown into latching position.

It is also sought to provide a simple, neat and compact construction adapted to operate in a satisfactory and efficient manner, and which will be inexpensive to manufacture.

With the foregoing objects in view, the invention will now be described with reference to the accompanying drawing which illustrates one form of embodiment of the improvements, after which those features deemed to be novel will be set forth and defined in the appended claims.

In the drawing—

Figure 1 is a perspective view of a latching means constructed in accordance with the present invention, showing only fragments of the gate and gate post with which the same is designed to operate;

Fig. 2 is a horizontal section, showing the gate just about to operate the latch, the dotted lines representing the relative positions of the parts after the latch has been operated; and

Fig. 3 is a front elevation of the parts as shown in Fig. 2.

Referring to the drawing in detail, the improvements are illustrated in connection with a gate post 2 and a gate 4, of which only such portions are shown as are necessary for an understanding of the invention. The latch parts proper are mounted on a bracket 6 which may be conveniently constructed of sheet metal and stamped to form a projecting stop portion 8 and a keeper portion 10 within which is pivoted a U-shaped latch member 12. This latch member 12 is pivoted about a horizontal axis within its keeper 10, and the space between the two legs of the latch member is sufficient to adapt the latch to span the post 2 on swinging to unlatched position, and also to span and embrace the adjacent portion of the gate 4 whenever the latch is thrown into latching position as illustrated by the dotted lines in Figs. 2 and 3. In this latter position the latch is engaged and its movement limited by the stop portion 8 of the bracket 6, this stop portion 8 forming a rest for supporting the latch when the gate is closed. The free ends of the latch are turned outward to provide suitable engaging portions 14 for lifting the latch on opening the gate.

Means is provided for engagement by the gate, when it is swung into closed position, for automatically operating the latch and throwing it into latching engagement with the gate. This means comprises a pivoted member 16 which is mounted on a vertical pivot consisting of a pin 18 removably fitted within a keeper plate 20, the lower end of the pin 18 extending through the keeper portion 10 which accommodates the latch 12. The bracket 6 is secured to the post 2 by means of screws 22, the same screws at the upper end of the bracket serving also to retain the keeper plate 20. The pivoted member 16 is constructed of moderately heavy wire and acts in the manner of a lever, with one end extending out beyond the side margin of the post 2 in position to engage one of the legs of the latch member 12, and the other end of said lever member 16 extending into the path of movement of the gate where it is adapted to be engaged by a staple 24 located within a notch or recess 26 cut in the frame of the gate 4.

From the foregoing description, together with the accompanying drawing, the construction and operation of the device will be readily understood. When the latch is thrown back to open the gate, the latch engages one end of the pivoted lever member 16, pushing it back against the bracket plate 6, the said member 16 then serving to support the latch in its unlatched position, as shown by the full lines on the drawing. Now, when the gate is swung shut, the staple 24 engages the other end of the lever member 16 and moves said member into the position represented by the dotted lines in Fig. 2, with the result that the latch member 12 is swung about its axis and comes to rest on the stop portion 8, as indicated by the dotted lines in Figs. 2 and 3, thereby automatically latching the gate. It will be seen also that the stop portion 8 not only limits the movement of the latch and supports it in its lowered or operative position, but also acts as a stop for the gate, the staple 24 clearing said stop and the recess 26 accommodating the stop and allowing the necessary movement for operating the lever member 16, said stop finally engaging the base of the notch or recess 26.

It will thus be apparent that a simple and effective construction has been devised for carrying out the desired objects of the invention. The device is made of the cheapest materials, but is strong and not easily gotten out of order, and operates invariably to securely latch the gate whenever it is shut. Any part that should become worn or broken may be readily replaced, and provision is made for quickly renewing the wire lever member 16 by simply removing the pin 18 and fitting in a new part whenever necessary.

While the foregoing represents what is now regarded as the preferred form of construction, the right is reserved to such formal changes or modifications as may fairly fall within the scope of the appended claims.

What is claimed to be new, is:

1. A gate latch construction comprising a pivoted latch member carried by the gate post and adapted to swing about a horizontal axis into latching engagement with the gate and also to swing back through and past vertical position into unlatched position, and a latch-throwing member carried by the gate post and operating about a vertical axis to engage and limit the unlatching movement of said latch member back past its vertical position by engagement with said latch member at a point above and to the rear of the axis of said latch member, and thereby acting to support said latch member in its unlatched position.

2. A gate latch construction comprising a bracket attached to the gate post, a horizontally pivoted latch member mounted on said bracket and adapted to swing into latching engagement with the gate, said bracket being formed with a projection extending in position to limit the movement of the gate and also act as a stop for the latch member in its latched position, and means carried by said bracket and actuated by the closing of the gate to throw said latch member into latching engagement with the gate.

In witness whereof I hereto affix my signature.

JOHN L. HOOVER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."