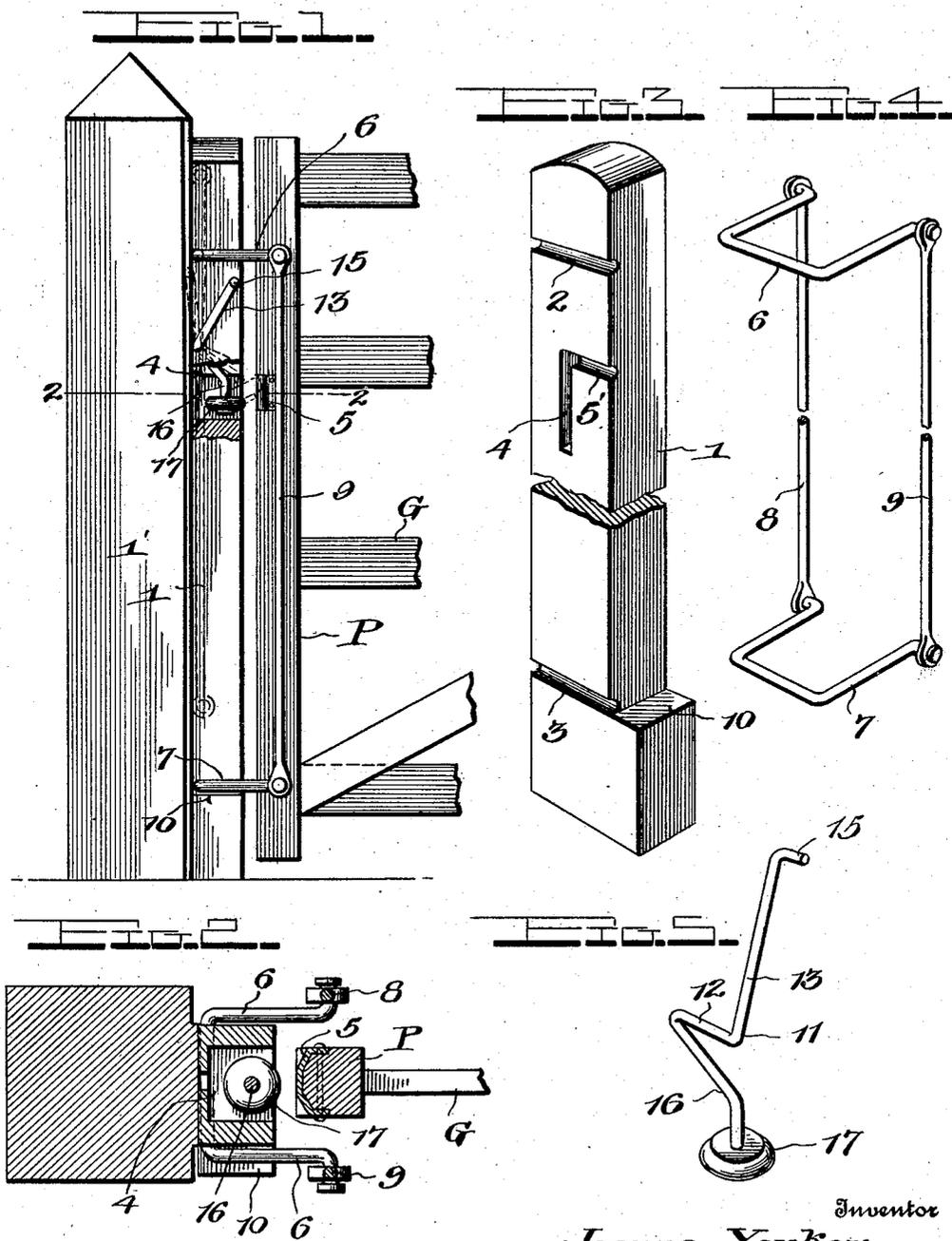


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 AUTOMATIC GATE LATCH.  
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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC GATE-LATCH.

1,186,871.

Specification of Letters Patent. Patented June 13, 1916.

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*To all whom it may concern:*

Be it known that I, JAMES YERKEY, a citizen of the United States, residing at Aledo, in the county of Mercer and State of Illinois, have invented certain new and useful Improvements in Automatic Gate-Latches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in latches and more especially to those intended for use on gates.

The object of the invention is to provide a gate latch capable of use in connection with a gate which is adapted to swing in a horizontal plane and which will automatically close when the gate is swung into position opposite the latch post.

With these and other objects in view, the invention consists of certain novel features of construction, and combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 represents a side elevation of the latch post of a gate and a portion of the gate arranged in closed position in relation to the post with this improved latch applied and in operative position, parts being broken out to show the mounting of the operating lever; Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1; Fig. 3 is a transverse view of the latch post, parts being broken out for convenience in illustration; Fig. 4 is a similar view of the latch; Fig. 5 is a similar view of the latch closing lever.

In the embodiment illustrated a latch post 1 is shown having grooves 2 and 3 extending transversely across its rear face near its upper and lower ends to receive members of the latch to be described. This post is also provided with a socket 4 in which the latch closing or releasing lever is designed to be mounted, said socket having a laterally extending groove 5 communicating therewith and in which a part of said lever is designed to be mounted.

The gate G which may be of any desired construction is here shown with its end

post P provided with a projection in the form of a metal plate 5 arranged on its outer edge in position to engage and actuate the latch releasing lever when the gate is swung into closed position as will be hereinafter more fully described.

The latch constituting this invention comprises two U-shaped keeper members 6 and 7 each of which is herein shown with the free ends of the legs thereof extended laterally outward in opposite directions to receive connecting rods 8 and 9 which may be pivotally mounted or connected therewith in any suitable manner. These rods shown have their ends enlarged and apertured to fit over the laterally projecting ends of the U-shaped hinge members which may be secured against detachment in any suitable manner, said ends being herein shown upset for this purpose. The cross bars of these U-shaped hinge members 6 and 7 are mounted in the grooves 2 and 3 of the latch post with their legs embracing the post and extending beyond the front face thereof, said legs being sufficiently long to overlap the front bar P of the gate and between which said gate is designed to be disposed and held against lateral movement as shown in Fig. 1.

The latch post 1 is herein shown provided at one side with a laterally extending shoulder 10 arranged in alinement with the groove 3 and which is designed to form a stop for the hinge member 7 for limiting the downward movement thereof, thus positioning said member in substantially horizontal position when closed so that the connecting rods 8 and 9 of the latch are disposed vertically and in parallel relation on opposite sides of the gate to be fastened. This post 1 is herein shown comparatively thin and is mounted on a larger post 1' against the inner face of which the rear grooved face of the post 1 abuts and may be secured thereto in any desired manner. When it is so disposed it will serve to completely house the cross bars of the members 6 and 7 in the grooves or sockets 2 and 3 and prevent them from being accidentally disengaged and yet permit them to swing freely in said sockets.

Mounted in the socket 4 of this post 1 is

the latch releasing lever 11 which is here shown constructed of a heavy metal rod bent into the form shown in Fig. 5 with a bearing bar 12 adapted to be mounted in the groove 5' which communicates with the socket 4 and having a substantially L-shaped member 13 extending upwardly from one end thereof and projecting forwardly as shown in Fig. 1, said arm 13 being adapted to lie in close proximity to one edge of the post 1. The member 13 is here shown provided with a laterally extending terminal finger 15 which, when the device is positioned on the post, is designed to engage the rod 9. An arm 16 extends from the other end of the cross bar 12 of the lever and is disposed at an oblique angle thereto with its terminal bent downwardly and provided with a weight 17 which is adapted to project beyond the front face of the post 1 in the path of the projection 5 of the gate when the latch is swung upward into inoperative position. The rod 9 when said latch is so moved engages the laterally extending end 15 of the lever and forces said end rearwardly thus causing the weighted end thereof to be projected beyond the front face of the post into the path of the projecting plate 5 carried by the gate as shown in dotted lines in Fig. 1, for a purpose to be described, when the rods 8 and 9 are swung upward into the position shown in dotted lines in Fig. 1.

In the use of this improved latch when the gate is closed and the latch is swung downwardly into operative position as shown in Fig. 1, the rods 8 and 9 will be on opposite sides of the gate bar B with one leg of the member 7 resting on the stop 10 of said post. To open the gate either one of the rods 8 or 9 may be grasped and moved upwardly thereby swinging the members 6 and 7 in the grooves 2 and 3 and positioning the latch as shown in dotted lines in Fig. 1 whereby the legs of the members 6 and 7 and the connecting bars 8 and 9 are disposed completely out of the path of the gate and as above described this raising of these bars causes the bar 9 to contact with the end 15 of the lever and force it rearwardly thereby projecting the weighted end 17 into the path of the gate as shown in dotted lines in Fig. 1. When the parts are so positioned the gate may be swung in either direction for opening it and when it is desired to close the gate all that is necessary is to give it a push and when it reaches a position opposite the post 1, the projection 5 thereof will engage the weight 17 and force said weight inwardly thereby projecting the opposite end of the lever and causing the laterally extending arm 15 thereof to forcibly engage the rod 9 and move it laterally outwardly thus causing the latch to drop downwardly into closed operative position where

it will remain until again manually elevated.

From the above description it will be obvious that while it is necessary that the latch be manually raised for opening the gate, it will automatically close or drop into operative position on the closing of the gate.

I claim as my invention:

1. The combination with a latch post having longitudinally spaced transversely extending grooves across its rear face and provided with a socket to receive a latch operating lever and having a laterally extending groove communicating therewith, of a latch comprising two U-shaped keepers with their cross bars slightly longer than the width of said post and pivotally mounted in said transverse grooves with the free ends of their legs extending forwardly, said legs hugging the sides of the post with their terminals projecting beyond the front face of said post when in operative position, connecting rods pivotally connected at their ends with the ends of said legs, said rods corresponding in length to the distance between said transverse grooves, a stop on one side of said post in alinement with one of the transverse grooves to limit the downward movement of the keeper mounted in said groove, and hence the downward movement of the rods connected therewith, a latch releasing lever fulcrumed in said socket and having an arm extending upwardly adjacent one side of the post and provided with a laterally extending finger positioned in the path of one of said connecting rods and another arm carried by said lever and having a weight on its terminal projected normally beyond the front face of said post for engagement by the gate when the latch is in inoperative position.

2. The combination with a latch post having longitudinally spaced transversely extending grooves across its rear face and provided with a socket to receive the latch operating lever and having a laterally extending groove communicating therewith, U-shaped keepers having the cross bars thereof mounted in said transverse grooves with their legs embracing the sides of said post and projecting beyond the front face thereof, parallel rods connecting the free ends of said keepers, a latch releasing member comprising a rod having a lateral offset intermediately of its ends to form a bearing bar for pivotal mounting in the groove which communicates with said post socket, an L-shaped member extending upwardly from one end of said bearing bar and in close proximity to one side of the post with its short arm extending laterally outward in the path of one of said connecting rods, an arm depending from the other end of said bearing bar and disposed at an

oblique angle thereto, said arm extending  
through said socket and having its termi-  
nal bent downwardly and provided with a  
weight adapted to project beyond the front  
5 face of the post in the path of the gate when  
the latch is in inoperative position.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-  
nesses.

JAMES YERKEY.

Witnesses:

W. J. GRAHAM,  
PAUL J. GRAHAM.

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