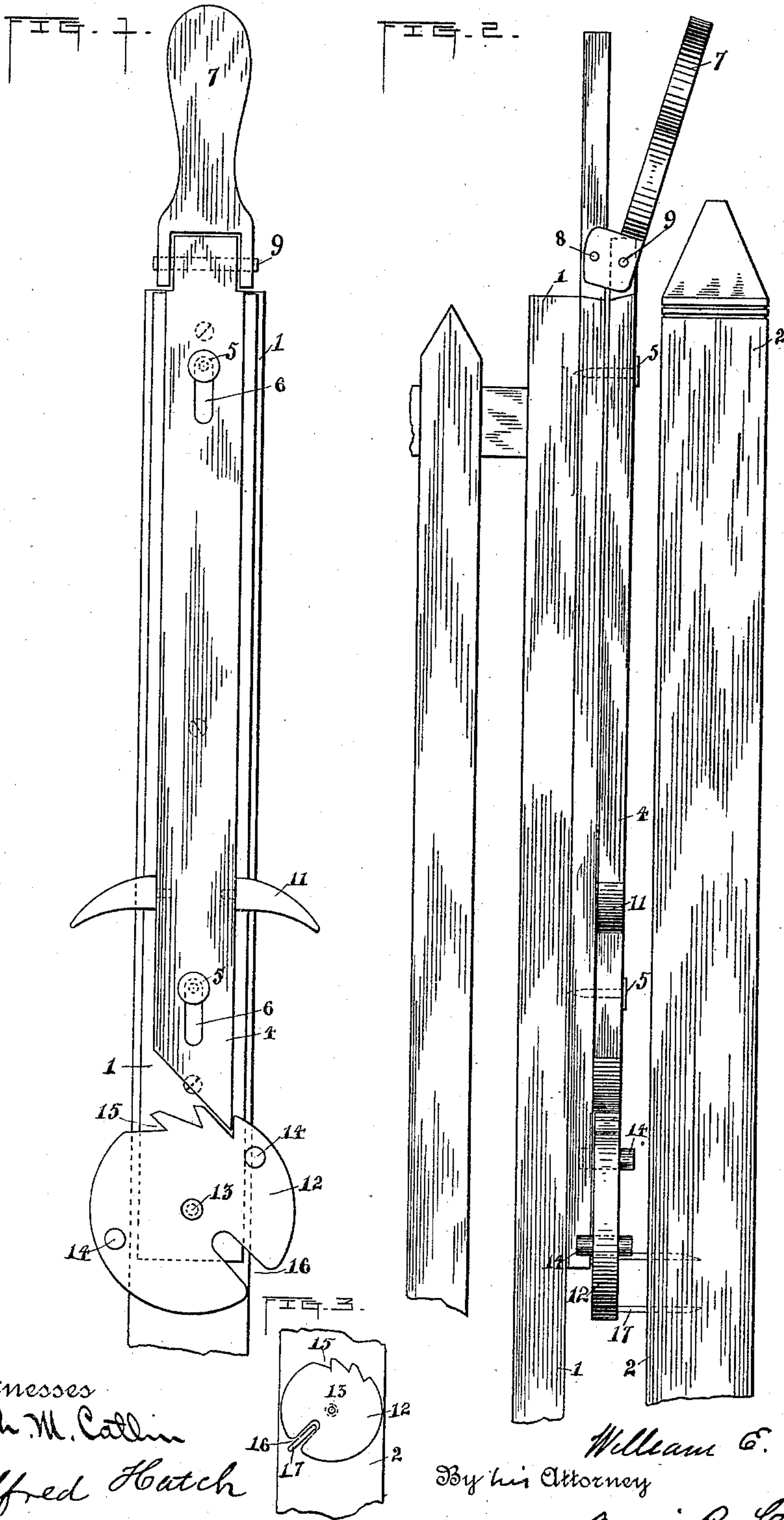


(No Model.)

W. E. TYLER.
GATE LATCH.

No. 448,755.

Patented Mar. 24, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM ELMAR TYLER, OF ALDIE, VIRGINIA.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 448,755, dated March 24, 1891.

Application filed June 30, 1890. Serial No. 357,277. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ELMAR TYLER, a resident of Aldie, in the county of Loudoun and State of Virginia, have invented certain new and useful Improvements in Gate-Latches; and I do hereby 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 pertains to make and use the same.

The object of the invention is to provide a latch suitable for gates, and particularly for farm-gates, and which can be conveniently opened either by a person on horseback or by a footman, which latch shall be applicable to gates whether they shut against one side or the other of the gate-post, as well as to those that shut by the post; and the invention consists in the construction hereinafter set forth and particularly pointed out.

In the accompanying drawings, Figure 1 is a front elevation of the latch applied to the upright bar of the gate. Fig. 2 is a side elevation of the same and of a post, and Fig. 3 is a side elevation of the latch applied to the side of the upright and post.

Numeral 1 denotes the outer upright or bar of a gate, and 2 a post.

4 indicates a stop bar or detent movably supported against the vertical gate-bar 1 by means of the headed pins, screws, or bolts 5, secured in the upright and passing through slots 6 in the detent-bar. A bent lever 7 is pivoted at 8 to the upright bar 1 and at 9 to the detent-bar. The lever 7 is conveniently made fork-shaped to embrace the gate-bar, and also to receive the detent-bar 4, as shown, though the fork form is not essential. The parts are so connected and pivoted that the detent drops by gravity, the lever 7 assuming the position shown in Fig. 2. To raise the detent it is only necessary to move lever 7 to the position shown in full lines in Fig. 2. This can easily be done by grasping the lever with one hand, which can be conveniently done in the case of high gates by a horseman, or said detent can be raised by using a handle 11, provided for the use of footmen.

A latch is denoted by 12. It is pivoted at 13 to the gate.

14 14 are stops which limit the movements of the latch about its pivot, and in practice

they are made to extend through the latch to adapt it to be applied to either side of the gate-bar or to a gate opening in either direction.

15 is a ratchet provided on the periphery of the latch to receive the detent 4, and 16 a notch or slot to receive a pin or staple 17, secured to the gate-post. This slot is flared or widened at its outer end to adapt it more certainly to engage the pin or staple. The latch having the slot 16 and notches 15 cut in one side will be lighter on that side, and when free to move will automatically turn to the operative position shown in Fig. 1.

In operation when the gate is swung to close it (the detent-bar being raised) the wall of slot 16 of the latch strikes against the pin or staple 17, and the latch is turned thereby until a pin 14 engages the gate, and thereupon the lever 7 or handle 11, as the case may be, being released the detent automatically drops and engages one of the teeth of the ratchet on the latch and holds it against a backward movement.

To open the gate it is only necessary to raise the detent and push or pull the gate, according to the side upon which the operator may chance to be. This movement carries the side of the slot 16 against pin 17 and causes the latch to revolve, so that it offers no obstruction to the opening of the gate. Should the latch not be turned sufficiently in closing the gate to bring the detent over the last notch in the ratchet, one of the other teeth will be certainly engaged and prevent the opening of the gate until the detent is raised.

My improved device is applicable to all kinds of gates and can be placed on gates opening in either direction. Prior latches of the same general character as mine have not been capable of such application, and, furthermore, they have made use of springs and have required the provision of brackets and other devices whereby to attach them or render them operative. The latch and other adjuncts can be conveniently made of cast metal, though the improvement is not limited to any particular material nor to the precise form and arrangement illustrated, as these can be varied by mechanics without departing from the invention, provided substantially the same construction and operation are preserved.

I deem of importance features of construction which adapt the latch to be applied at will to gates whether they open in one direction or the other, and which adapt it to be operated conveniently by persons walking or riding, these advantages being secured in connection with great simplicity of structure and with certainty and security of action.

It should be noted that the above-described latch is pivoted at one side of the center of gravity, so that when released from the detent and from the pin on the post it will automatically revolve on its pivot to bring it in position to engage the pin when the gate is moved to close the same. As before stated, the pin at such time causes the latch to turn, and the latter is held in its position thus taken by the detent. The stops located substantially as shown limit the rotation of the latch in either direction. They are extended through the latch by preference, and thus are rendered operative whichever side of the latch is applied to a gate. This feature, in connection with others, adapts the device for use between the gate-post and gate whether the latter is hinged at one end or the other, and also for application on either side of a gate, and for this purpose no change of the construction is required.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. The combination of the slotted gravitating detent, the supporting-pins passing

through the slots, the bent lever pivoted to said detent and to a gate, and the latch provided with a ratchet and with a radial slot adapted to engage a pin and having a stop to limit the rotation of the latch, substantially as set forth. 35

2. A gate-latch pivoted at one side of its center of gravity and provided with a ratchet and with a radial slot, the side to the rear of the ratchet and slot being the heaviest, and having a laterally-extending stop adapted to engage the gate-post, whereby the latch when free to move on its pivot automatically turns to and is stopped at a predetermined position, in combination with a detent and with a latch-engaging pin secured to a post in the path of the latch and on a level with the mouth of the slot, substantially as set forth. 40 45 50

3. The combination of the pivoted gravitating latch having a ratchet and pin-engaging slot with the gravitating detent and with stops extending through the latch, whereby either side of the latter is adapted to be applied to a gate, and whereby in either situation the latch is stopped in two directions, substantially as set forth. 55

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 60

WILLIAM ELMAR TYLER.

Witnesses:

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WM. N. WISE.