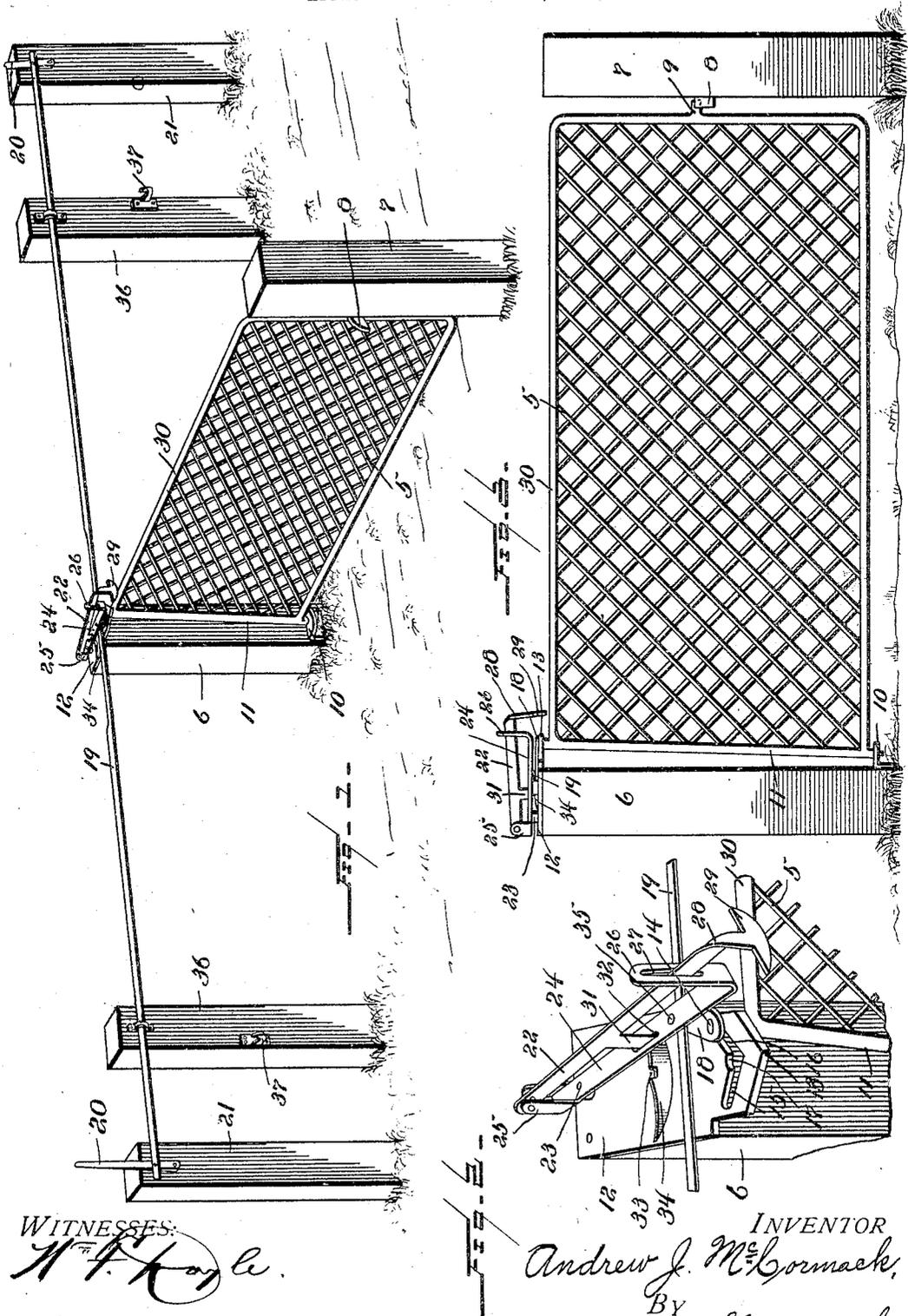


No. 792,722.

PATENTED JUNE 20, 1905.

A. J. McCORMACK.
GATE.

APPLICATION FILED APR. 8, 1905.



WITNESSES:

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ANDREW J. McCORMACK, OF CADIZ, INDIANA, ASSIGNOR OF ONE-HALF
TO CLINTON McCORMACK, MILTON McCORMACK, AND JOSEPH F.
ALSPAUGH.

GATE.

SPECIFICATION forming part of Letters Patent No. 792,722, dated June 20, 1905.

Application filed April 8, 1905. Serial No. 254,594.

To all whom it may concern:

Be it known that I, ANDREW J. McCORMACK, a citizen of the United States, residing at Cadiz, in the county of Henry and State of Indiana, have invented new and useful Improvements in Gates, of which the following is a specification.

My invention relates to gates, and more particularly to means for opening and closing the same.

The invention relates to that class of swinging gates having means for throwing the hinges out of alinement to change the center of gravity of the gate, so that it will swing open in the desired direction. Means are also provided for preventing the gate from swinging too far when closing, such means being released when the gate is fully closed to restore the parts to their normal position for opening the gate.

Improved details in the construction and arrangement of the various parts of the invention will be apparent from the description hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing the position of the parts when the gate is closed. Fig. 2 shows the gate open. Fig. 3 is a side elevation.

Referring specifically to the drawings, the gate 5 may be of any construction and is hinged to a post 6. The latch-post 7 has a catch 8, which engages the usual latch 9 on the gate. At the bottom of the post 6 is a projecting plate 10, having an aperture to receive the lower end of the end bar 11 of the gate, which forms the bottom hinge. A flat plate 12 is secured on the top of the post 6 and has a projecting front end 13, which is slotted to receive an upward extension 14 of the end bar 11, which forms the hinge-pintle of the top hinge. The slot is angular, and at the point of intersection of the inclined portions 15 and 16 there is a small notch 17 for a purpose to be described. The pintle 14 is connected by a link 18 to draw-rods 19, having hand-levers 20 pivoted to posts 21. The rods extend in opposite direction, and the posts are located at a suitable distance from the gate. At the

rear end of the plate 12 a supporting device 50 for the latch 22 is pivoted, as at 23. This device comprises a flat plate 24, having at its rear end a pair of upturned ears 25. The front end of the plate is bent upwardly, as at 26, and slotted, as at 27. The latch is pivoted 55 between the ears 25 and extends through the slot 27, beyond which it is bent downwardly, as at 28, and formed with a cam-shaped end 29, which projects into the path of the top bar 30 of the gate for a purpose to be hereinafter described. Between its ends the 60 latch has a depending spur 31, which extends through a slot 32 in the plate 24 and is arranged to enter a notch 33, made in a projection 34 on top of the plate 12. The projection 65 rises gradually from the plate to the notch in opposite directions. The plate 24 is also connected to the link 18 and the draw-rods 19, as at 35.

In Fig. 1 the position of the parts when the gate is closed is shown. The part 14 fits in the notch 17, and the top bar 30 of the gate, by reason of its engagement with the cam 29, has lifted the latch and withdrawn the spur 75 from the notch 33. This leaves the gate free to be opened. To open the gate, one of the rods 19 is pulled by its hand-lever 21, which, through the link connection 18, draws the part 14 along one of the inclined portions of the slot, causing the gate to tilt and its front 80 end to rise and disengage the latch. As the center of gravity of the gate is now changed, it will swing open by its own weight. The swing of the gate is stopped by posts 36, located at a suitable distance therefrom and 85 having catches 37 to engage the gate-latches. The plate 24 being connected to the link 18, the latch 22 will swing with the latter. To close the gate, the hand-lever 21 is operated to return the part 14 to its normal position in 90 the notch 17, which lifts the front end of the gate, so that the latch clears the catch 37 and permits the gate to swing shut. The latch 22 swings with the link 18, as before, and its purpose is to prevent the rods 19 from being 95 pulled too far, said rods being held against further movement when the part 14 reaches the notch 17. The notch 17 is in alinement

with the notch 33, and as the latch 22 swings with the link 18 it will be seen that when the part 14 enters the notch 17 the spur 31 drops into the notch 33 and prevents further pull on the rod, tending to move the part 14 from its proper position in the notch 17. When the top bar of the gate engages the cam 29, the latch is lifted up and the spur withdrawn from the notch, which leaves the parts free to be operated as before to open the gate. The movement of the link and its associated parts is a little in advance of the gate, so that the cam will not be actuated to disengage the spur until the part 14 has come to its proper position.

The invention is entirely automatic in its operation, it being necessary only to give the operating-lever a pull.

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a gate-post and a gate hinged thereto, the top hinge comprising a plate secured to the gate-post and having a slot to receive the hinge-pintle of the gate, draw-rods and a link connecting the same with

the pintle for shifting the latter in the slot and throwing the hinges out of alinement, a latch for holding the draw-rods when the hinges are in alinement, and a cam carried by the latch and engageable by the gate when it shuts to release the latch.

2. The combination with a gate-post and a gate hinged thereto, the top hinge comprising a plate secured to the gate-post and having a slot to receive the hinge-pintle of the gate, draw-rods and a link connecting the same with the pintle for shifting the latter in the slot and throwing the hinges out of alinement, a pivoted plate connected with the link, a latch carried by the plate for holding the draw-rods when the hinges are in alinement, and a cam carried by the latch and extending into the path of the gate and engaged thereby when it shuts to release the latch.

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

ANDREW J. McCORMACK.

Witnesses:

JOSEPH F. ALSPAUGH,
CLINTON McCORMACK.