

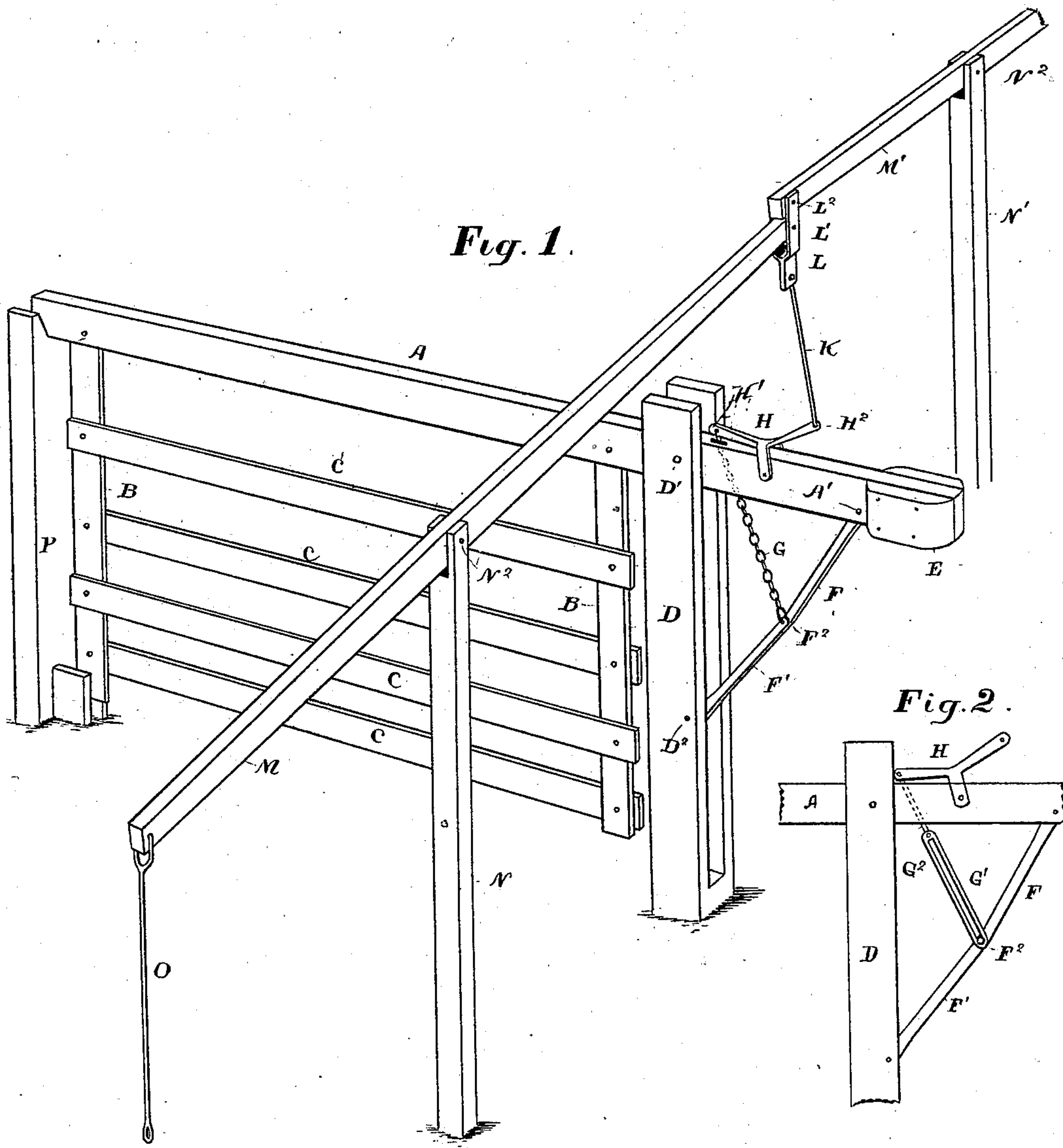
(No Model.)

D. E. ROBINSON.

GATE.

No. 294,077.

Patented Feb. 26, 1884.



Witnesses,

H. W. Wells,

M. E. Upham

Inventor,

Dulaney E. Robinson,

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His Attorney.

UNITED STATES PATENT OFFICE.

DULANEY E. ROBINSON, OF ROANOKE, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 294,077, dated February 26, 1884.

Application filed September 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, DULANEY E. ROBINSON, of Roanoke, in the county of Woodford, in the State of Illinois, have invented an Improved Gate; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a perspective view of the invention; and Fig. 2, a modification thereof.

The object of this invention is the construction of a gate that can be opened and closed from a distance, and that shall be automatically locked and unlocked by the opening and closing mechanism. The gate itself, in the form of a parallelogram pivotally held together, is pivoted to its supporting-post and counter-balanced by a weight at the opposite side of its said supporting-post.

My invention relates more especially to the mechanism for opening and closing the gate and to means for automatically locking and unlocking the same.

In the drawings, A is the chief horizontal bar of the gate, and D is the supporting double post, in which the bar A is pivoted at D'. This bar A is made in cross-section in the form of an inverted U, for the sake of strength and increased neatness of appearance. Within this space are pivoted the upper ends of the vertical bars B, and to said bars B are pivotally secured the horizontal bars C. To have these bars C set near enough together to keep small animals from passing through, and yet permit the gate to fold up snugly, I place the said bars C alternately on opposite sides of the vertical bars B. In this way only the alternate bars C touch each other when the gate is folded together. Only the lower of the horizontal bars are placed thus closely together. The upper ones are farther separated until between the upper bar, C, and the U-bar A there is a space double, or nearly so, that between the lower two bars, or equal to that separating the two lower alternate bars.

To the extended end of the bar A is fastened a weight, E, slightly heavier than the gate itself. This enables the gate to retain itself open after having been raised.

To lock the gate, and thereby prevent its opening either by the counter-weight E or by the efforts of any animals, I have devised the toggle-joint lock F F', which, being pivoted at one end to the bar A at A', and to the post D at D², and having its joint F² held by a flexible connection, G, slightly below the straight line, joining the pivotal points A' D², prevents bar A from being moved until the said joint shall be raised. That this raising of the said flexible connection G may be automatically performed by the same movement that would tend to open the gate, I fasten the upper end of the flexible connection, which I here show as a chain, to the end H' of the rocking lever H. To the end H² of said lever is pivoted the lower end of rod K, the upper end of which is pivoted to the stirrup L. In this stirrup are pivoted the ends of the levers M M', which are pivotally supported at or near their centers by the posts N N'. The length of the levers M is equal to a little more than the distance from a driver's seat to beyond the horse's head.

In opening this gate, a person if on foot takes hold of the depending rod O, but if in a carriage of the lever M itself, and raises his end of it. This gives a downward movement to the opposite end and to the rod K thereat. The end H² of the rocking lever H shares in this depression, which raises its other end, H', the chain G, and thereby the joint F². The toggle-joint F F' being thus upwardly flexed, and the downward pressure of the lever M continuing, the gate is thereby opened until the bar A is almost vertical. After passing through the gate, the other rod, O, is pulled downward until the gate descends to its place, the toggle-joint F F' settles to its locked position, and all is fast. When the gate is open and the bar A therefore almost vertical, the bars B and C are folded down against it by the action of gravity, and as the gate closes the bars B, continuing to hang vertical, come down into the position shown in the drawings.

What I claim as my invention, and that for which I desire Letters Patent, is as follows:

1. The combination, with a counterweighted vertically-swinging bar having a folding gate depending therefrom, of a toggle-joint pivoted at its ends to the weighted end of said bar,

and to the post supporting the same, and means whereby to flex said joint, substantially as described, and for the purpose specified.

2. In combination with the weighted bar A, 5 pivotally supported by the post D, the gate B C, the toggle-joint F F', chain G, rocking lever H, and means for depressing the end H² of the same, substantially as and for the purpose set forth.

10 3. The bars B B, counterweighted bar A, having pivotally-supporting post D, toggle-joint F F', chain G, and rocking lever H, in

combination with means whereby the end H² of said rocking lever is acted upon by the movement of the levers M, substantially as and for 15 the purpose described.

In testimony that I claim the foregoing invention I have hereunto set my hand this 14th day of August, 1883.

DULANEY E. ROBINSON.

Witnesses:

C. F. BROWN,
L. J. JETER.