W. C. HOOKER.

Gate.

No. 199,441. Patented Jan. 22, 1878.

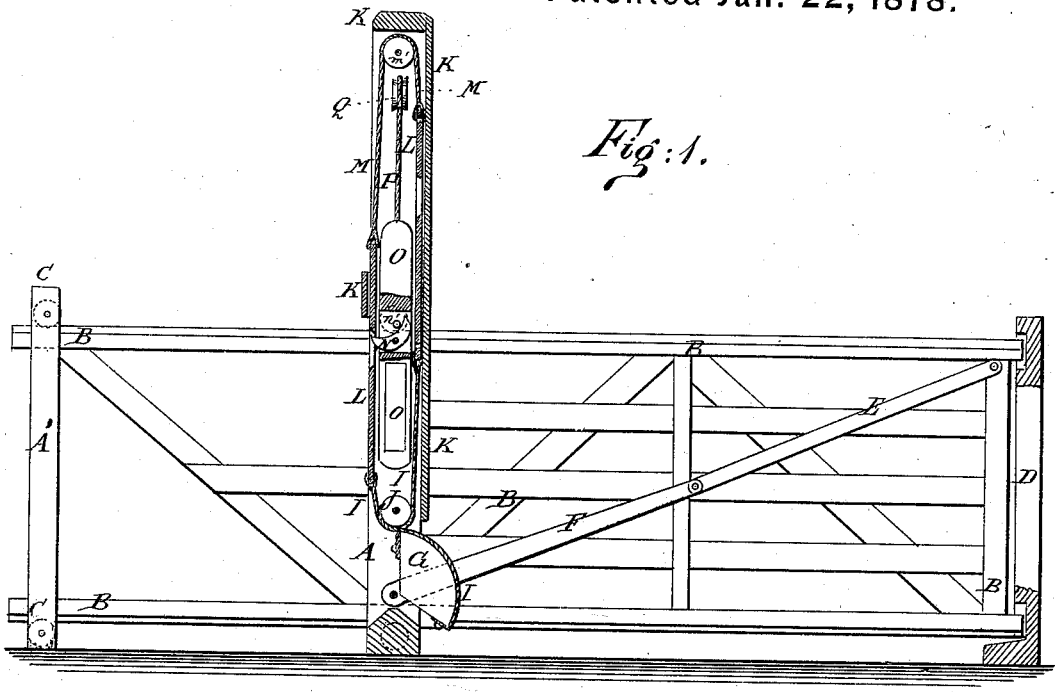

Fig: 1.

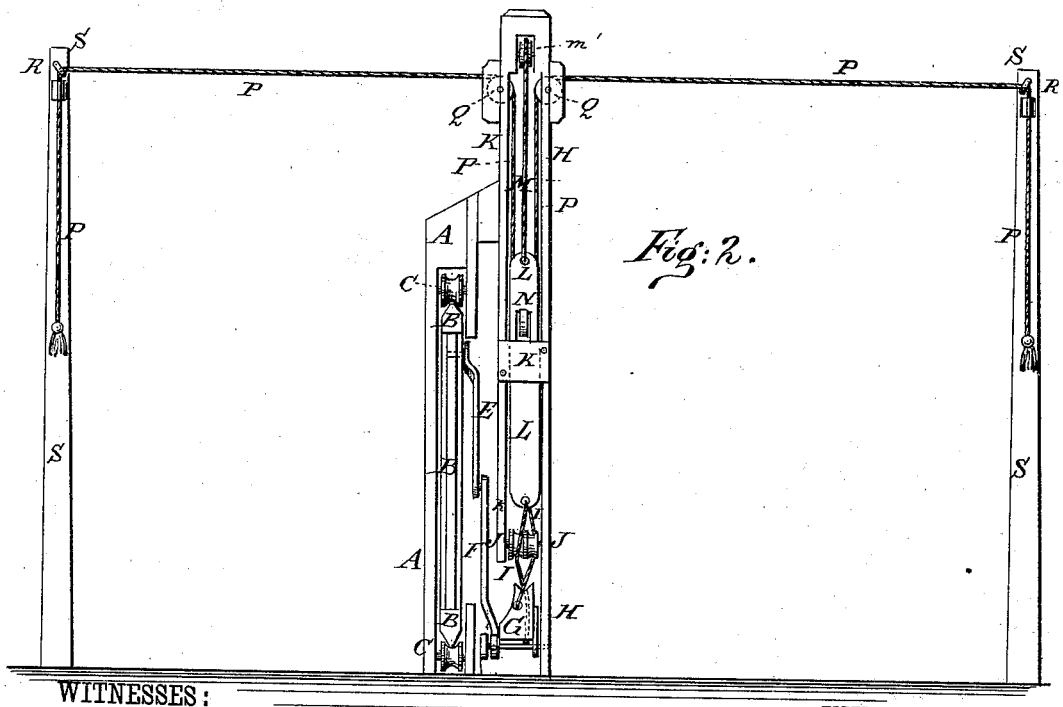

Fig: 2.

WITNESSES:

Chas. Nida

J. H. Scarborough.

INVENTOR:

W. C. Hooker.

BY Munn & Co

ATTORNEYS.

N. PETERS PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM C. HOOKER, OF ABINGDON, ILLINOIS.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **199,441**, dated January 22, 1878; application filed November 6, 1877.

To all whom it may concern:

Be it known that I, WILLIAM C. HOOKER, of Abingdon, in the county of Knox and State of Illinois, have invented a new and useful Improvement in Gates, of which the following is a specification:

Figure 1 is a side view of my improved gate, shown open and partly in section to show the construction. Fig. 2 is a rear view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved gate which shall be so constructed that it may be readily opened and closed by a person upon horseback or in a vehicle, which will lock itself when closed, and which shall be simple in construction, convenient in use, and positive in its movement in both directions.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

A are the rear gate-posts, two of which are used, and which are slotted longitudinally for the gate B to pass through.

The upper side of the top bar and the lower side of the bottom bar of the gate B are made V-shaped to fit into the grooves in the rollers C, which are pivoted in the upper and lower parts of the slots in the posts A, and which hold the gate B in a horizontal position as it moves open and shut.

The forward ends of the top and bottom bars of the gate B project a little, so as, when the gate is shut, to enter mortises in the front gate-post D, and thus hold the forward end of the gate in position.

To the forward upper corner of the gate B is pivoted the forward end of the connecting-bar E, the rear end of which is pivoted to the upper end of the lever F. The lower end of the lever F is rigidly attached to the inner side of the segmental pulley G pivoted to a support, H, attached to a short post set in the ground at the side of the forward rear post A.

To the ends of the curved side of the segment G are attached the ends of two cords, I, which pass in opposite directions around two guide-pulleys, J, pivoted to the support H, and to the side of a box, K, attached to the inner side of said support. From the rollers J the cords I pass upward, and are attached to the lower ends of the bars L, which slide up and down along the front and rear sides of the box K.

To the upper ends of the sliding bars L are attached the ends of a cord, M, which passes over a guide-pulley, *m'*, pivoted in the upper end of the box K.

By this construction the alternate upward movement of the bars L turns the segmental pulley G and opens and closes the gate with a positive movement.

In the sliding bars L are formed slots to receive the points of the curved double pawl N, which is pivoted at its center in a slot in the weight O, which moves up and down within the box K and between the sliding bars L.

With this construction, as the weight O moves down along the side of the lower bar L the end of the pawl N upon that side drops out into the slot in the said bar L, so that as the said weight is again raised it may carry the said bar L with it and open or close the gate, the other bar L at the same time descending, to be again raised in turn. The pawl N is supported while raising a bar, L, by its inner end resting against a pin, *n'*, passing through the slot of the weight O, as shown in Fig. 1.

The upper end of the weight O is suspended by the cord P, which passes over pulleys Q pivoted in the opposite sides of the upper end of the box K.

From the pulleys Q the cord P passes over guide-pulleys or through guide-eyes R, pivoted or attached to the upper ends of the posts S, set in the ground upon the opposite sides of, and at such a distance from, the forward rear post A that the hanging ends of the cord P may be reached and operated by a person in a vehicle to open the gate before his team has come in contact with it, and to close the said gate after his vehicle has passed through the gateway.

The hanging parts of the cord P should be sufficiently loaded to keep them always taut, and should be provided with stops to prevent their ends from being drawn over the pulleys R.

It will be observed that when the gate is

closed the connected ends of the bars E F drop a little below a straight line joining their outer ends, so as to lock the gate closed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the connecting-bar E, the lever F, the segmental pulley G, the cords, slotted bars, and guide-pulleys I M L J *m'*, the weight and pawl O N, and the cords and guide pulleys or eyes P Q R with each other, and with the gate B, the support and box H K, and the side posts S, substantially as herein shown and described.

WILLIAM CHAUNCEY HOOKER.

Witnesses:

JOHN C. FITCH,

JAS. J. ROWE.