

A. N. HOLMES.
No. 121,619.

Improvement in Self-opening Gates.
Patented Dec. 5, 1871.

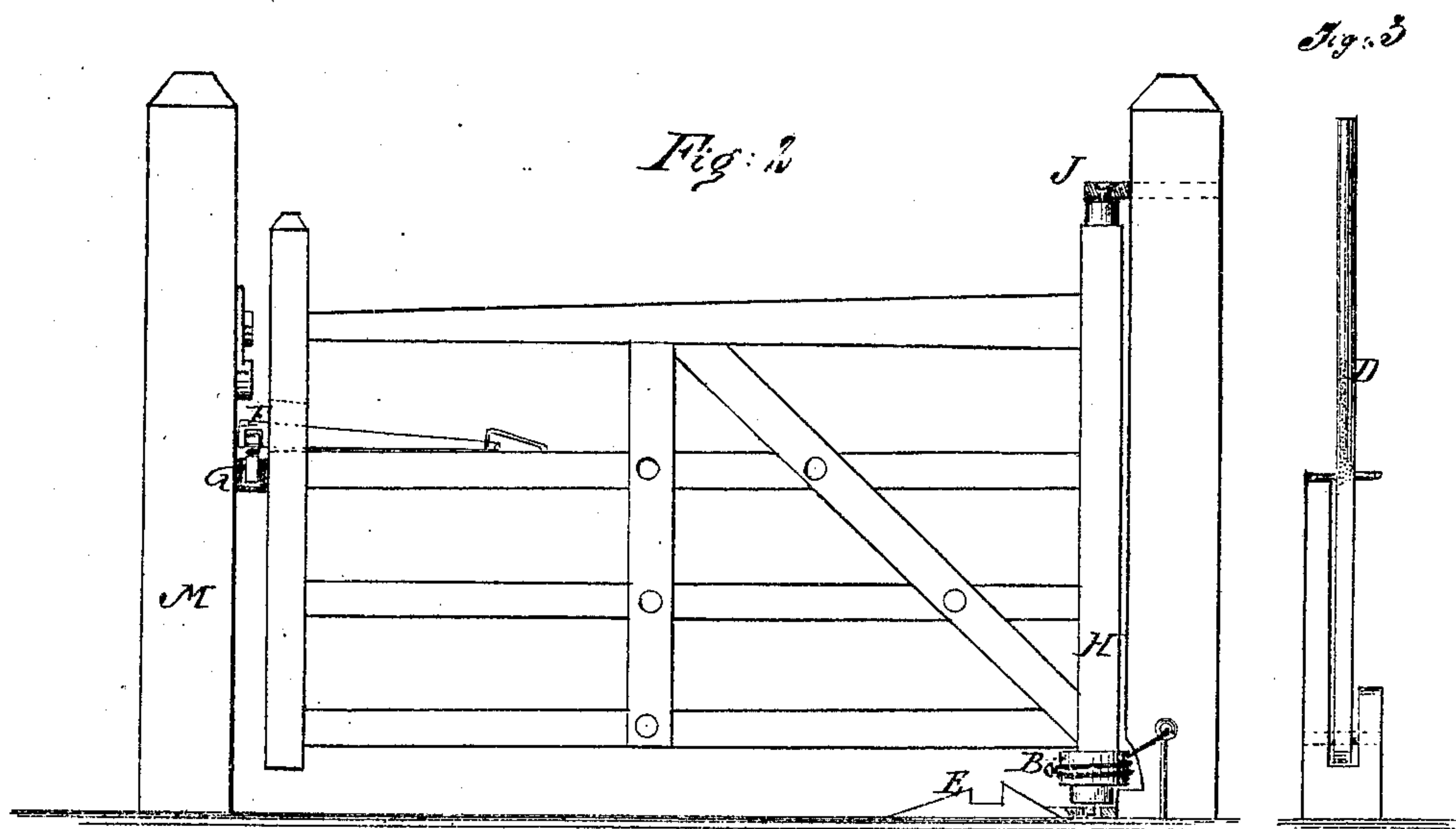
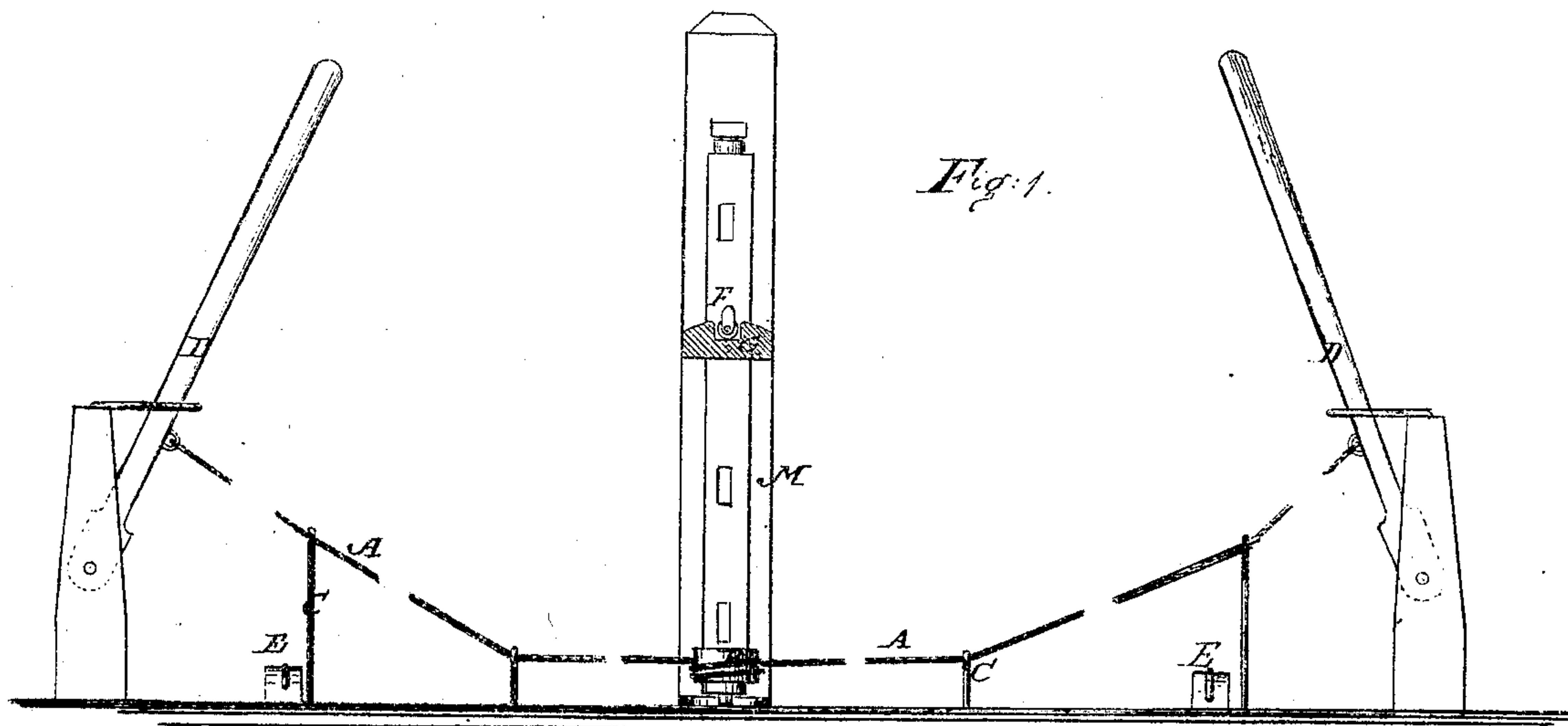
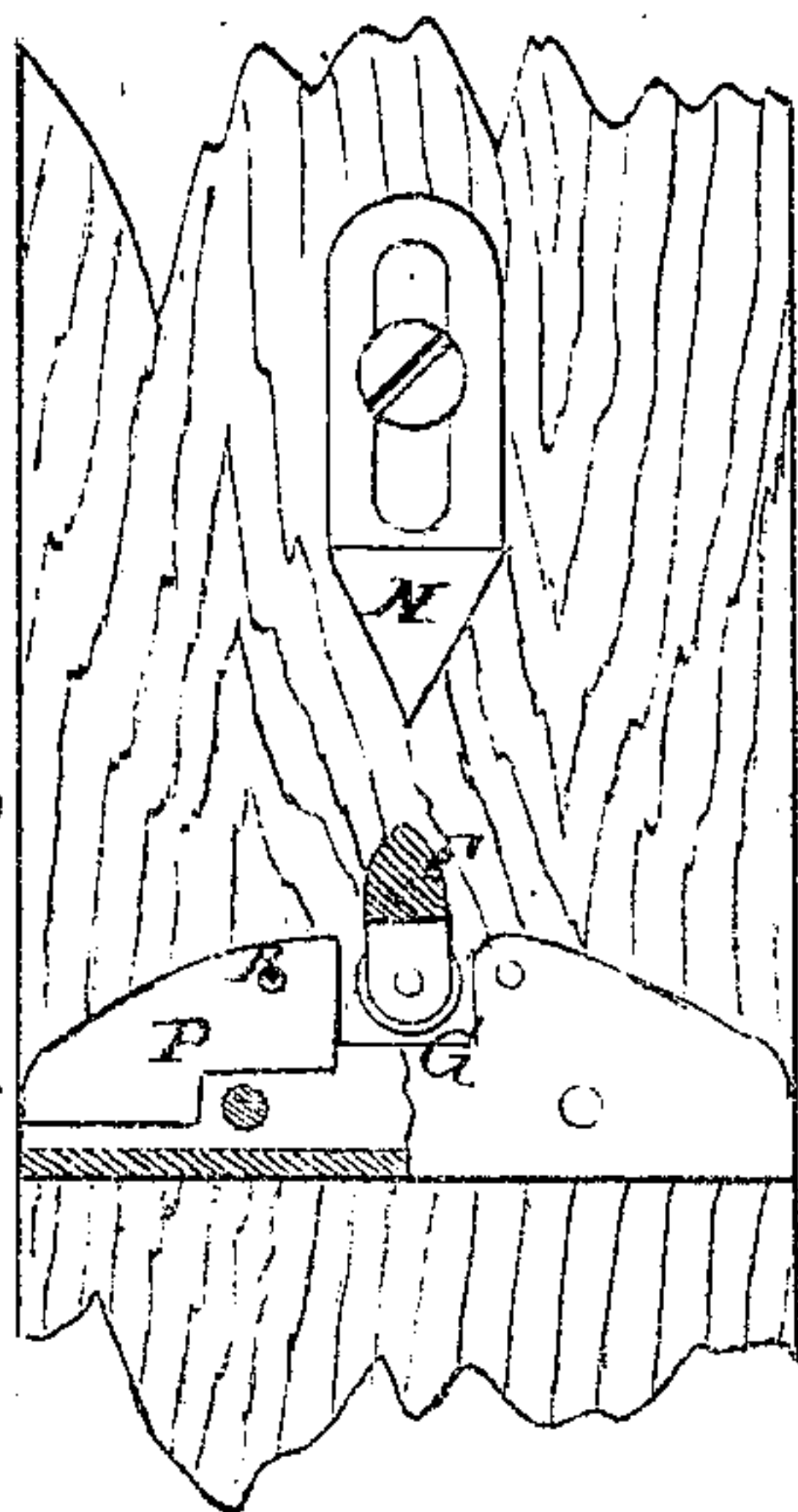
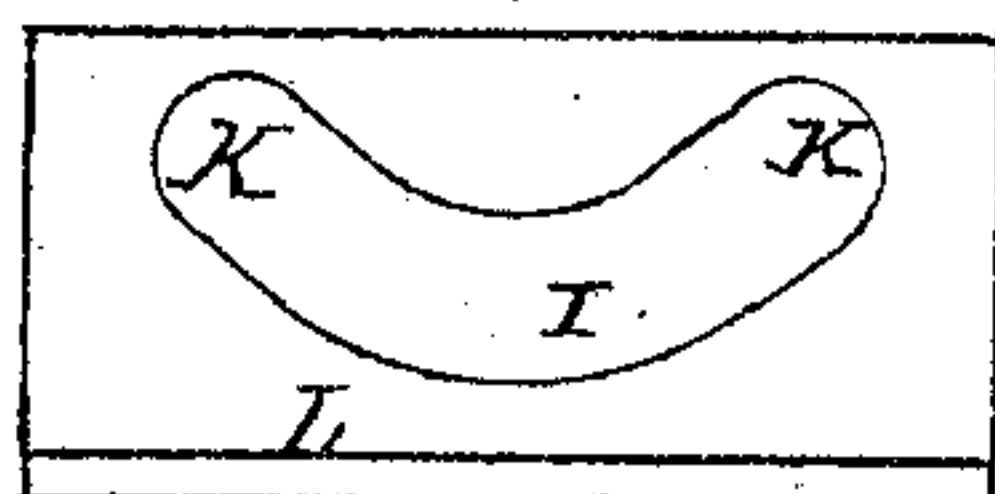


Fig. 4.

Fig. 5.



Witnesses:

Chas. Nida.
Francis McCord.

Inventor:

A. N. Holmes.

PER *Wm. L. [Signature]*
Attorneys.

UNITED STATES PATENT OFFICE.

ALBERT N. HOLMES, OF TYRONE, MICHIGAN.

IMPROVEMENT IN SELF-OPERATING GATES.

Specification forming part of Letters Patent No. 121,619, dated December 5, 1871.

To all whom it may concern:

Be it known that I, ALBERT N. HOLMES, of Tyrone, in the county of Kent and State of Michigan, have invented a new and Improved Gate-Actuating Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention relates to an improved latch for gates, the same being described hereinafter in connection with a gate provided with means for being opened or closed without the necessity of the operator descending from his carriage or horse; and it consists in a cord wound around the hinged post of the gate and extending at each side to a lever for actuating it to revolve the post and thereby swing the gate, and an arrangement of the lower hinge or pivot of the gate which causes a lifting action on the free end to raise it up for unlatching previous to swinging it open, also to disengage it from the catches for holding it open, the gate being suspended from an eye at the upper end of the oscillating post, all as hereinafter described.

Figure 1 is an elevation of the gate and the actuating apparatus and a section of the catch looking toward the free end of the gate when closed. Fig. 2 is a side elevation of the gate. Fig. 3 is a partial side elevation of the post having the catch, and section of the latter; and Fig. 4 is a plan view of the step for the bottom pivot of the post.

A is the actuating-cord, which is wound one or more times around the lower end of the pivoted post, or a pulley, B, thereon, and extended on each side through suitable guides C to an actuating-lever, D, which, being pulled in the direction from the gate, will cause it to swing open in the opposite direction and drop into a catch,

E, for holding it open. The same action will also lift the latch F out of the catch G, previous to swinging open, by pulling the bottom pivot or post H into the end K of the curved groove I in the step L, which, shifting the said post from the vertical line toward post M, will raise the end carrying the latch and lift the latter out of the catch. The gate-post H is suspended from the eyebolt J to allow the lower end to vibrate, as above stated, in its step. The same action will draw the pivot into the end K toward the operators, and thus tilt the top of the gate in the direction in which it is to swing, and thus cause the catch to pass on that side of the pointed guard N fixed on post G above the latch to prevent the opening when so tilted. The catch G is provided with pivoted and weighted latches P, which fall at the inner end, after the latch F passes the pivot R, to let the latter drop below guard N, and thus fall into catch G. Said latch F carries a friction-roller, which lessens the friction in passing over the latches P.

The post H assumes the vertical position as soon as the gate closes, being forced in that direction by the gravity of the gate and guided by the concave wall of the slot I, against which the weight of the gate forces it. The gate is closed, after passing through it, by a similar action of the lever D on that side which first draws the pivot of post H toward it and raises the free end of the catch E, and then revolves said post and closes the gate.

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

The combination, with the latch F, of the weighted latches P, and guard N, substantially as specified.

ALBERT N. HOLMES.

Witnesses:

Z. V. CHENEY,
H. S. BONNER.

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