(No Model.)

J. W. MORRISON.

GATE.

No. 262,087. Patented Aug. 1, 1882.

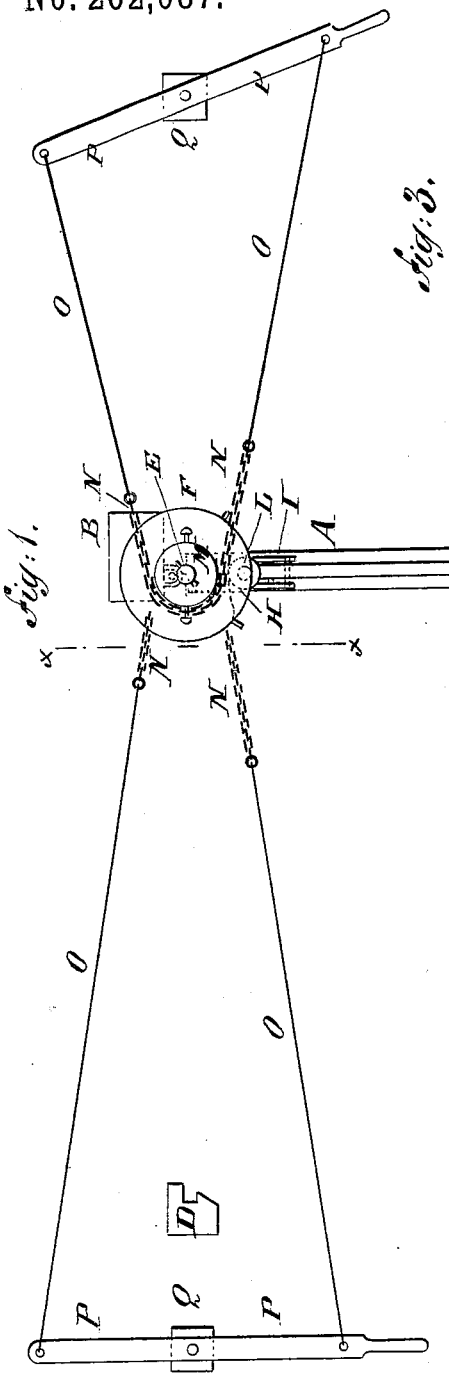

Fig. 1.

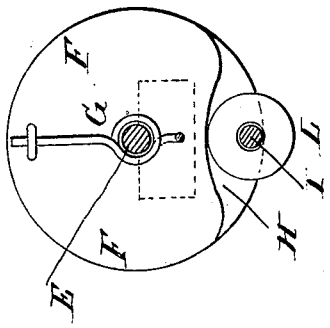

Fig. 3.

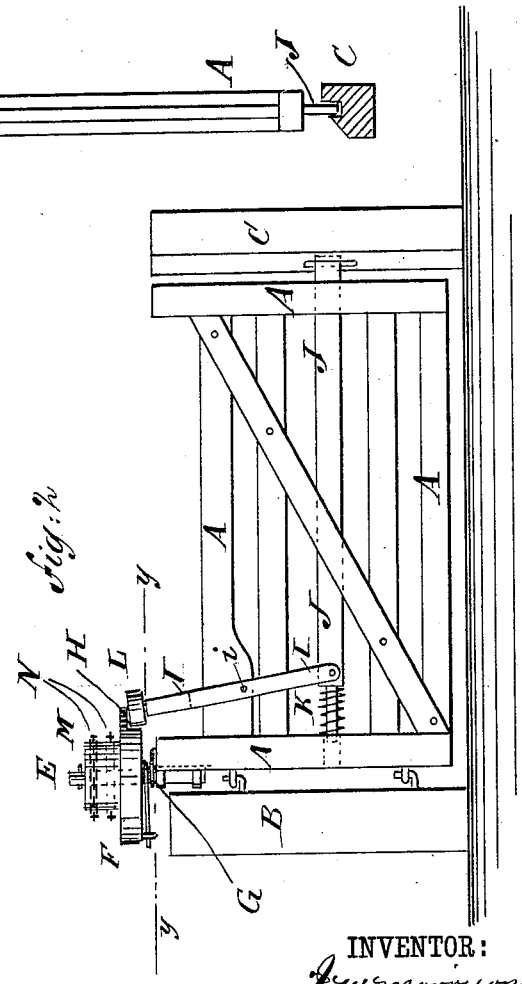

Fig. 2.

WITNESSES:

Chas. Nida.

C. Seagwick

INVENTOR:

J. W. Morrison

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES W. MORRISON, OF LOGANSPORT, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 262,087, dated August 1, 1882.

Application filed January 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES WILLIAM MORRISON, of Logansport, in the county of Cass and State of Indiana, have invented a new and useful Improvement in Gates, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improvement. Fig. 2 is a side elevation of the same, partly in section, through the line *x x*, Fig. 1. Fig. 3 is an under side view of the cam-wheels, partly in section, through the line *y y*, Fig. 2.

This invention relates to the class of gates that are arranged to be opened and closed from a distance at either side of the gates, and has for its object to facilitate the opening and closing of such gates.

The invention consists in the combination, with the gate and its latch and latch-spring, of a latch lever, a cam-wheel, its spring, and an operating mechanism, whereby the gate can be operated by turning the said cam-wheel; and also in the combination, with the gate, the gate-latch and its spring, and the operating-levers and their wires, of a latch-lever, a cam-wheel and its spring, and a pulley and its chains, whereby the cam-wheel can be turned to open and close the gate, as will be hereinafter fully described.

A represents an ordinary gate. B is the rear or hinge post. C is the front latch-post, and D is the side latch-post.

To the upper end of the rear end bar of the gate A is attached, or upon it is formed, a spindle, E, upon which is placed a cap-wheel, F.

Around the spindle E is coiled a spring, G, one end of which is attached to the end bar of the gate A, and its other end is connected with the cap-wheel F by a staple or other suitable means. The spring G is so arranged as to bring the cap-wheel F back to its normal position after being turned in either direction.

Upon the under side of the forward part of the cap-wheel F is formed a cam-recess, H, to receive the upper end of a lever, I, or a small friction-roller, L, placed upon the upper end of the said lever I. The lever I is pivoted at its middle part, at *i*, to a bar of the gate A, and its lower end is pivoted to the latch J, which slides in mortises in the end bars of the gate A, and is held forward by a spiral spring, K, placed upon the rear part of the said latch J, with its rear end resting against the rear end bar of the gate, and its forward end resting against a shoulder formed upon the said latch.

To the upper side of the cam-wheel F is attached a pulley, M, to the opposite sides of which are attached the middle parts of two chains, N.

To the ends of each chain N are attached the ends of two wires, O. The outer ends of the wires of each pair are attached to a lever, P, which is pivoted midway between the ends of the wires to the upper end of a post, Q. The pivot-post Q can be placed at any desired distance from the gate.

With this construction, when either of the levers P is operated the cam-wheel F will be turned upon the spindle E through a part of a revolution. The first effect of the movement of the wheel F is to cause its cam to operate the lever I to draw back the latch J and release the gate, and the next effect is to swing the gate open or shut.

In the drawings the gate is shown as arranged to open only in one direction; but it may be arranged to open in both directions, if desired.

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

1. The combination, with the gate A, the latch J, and its spring K, of the lever I, the cam-wheel F, the spring G, and an operating mechanism, substantially as herein shown and described, whereby the gate can be operated by turning the said cam-wheel, as set forth.

2. The combination, with the gate A, the latch J, and its spring K, and the levers P, and wires O, of the latch-lever I, the cam-wheel F, the spring G, the pulley M, and the chains N, substantially as herein shown and described, whereby the cam-wheel can be turned to open and close the gate, as set forth.

JAMES W. MORRISON.

Witnesses:
THOMAS BRADFIELD,
RICHARD D. BRADFIELD.