RAYMOND & MILLER.

Fence Gate.

No. 48,309. Patented June 20, 1865.

Fig. 1.

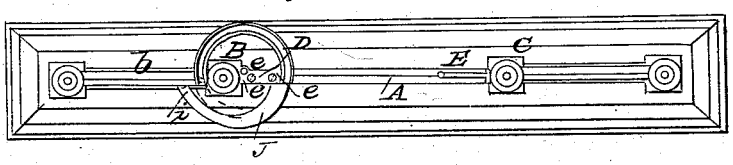


Fig. 2.

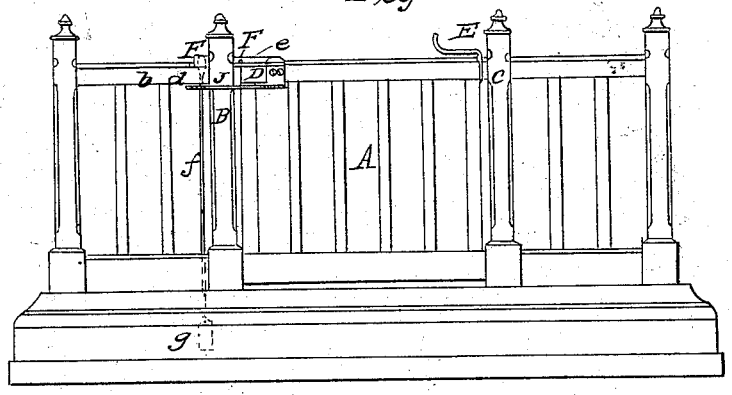
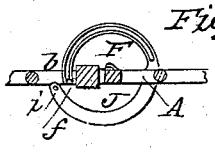


Fig. 3



Witnesses
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FITCH RAYMOND AND AUGUST MILLER, OF CLEVELAND, OHIO.

IMPROVEMENT IN FENCE-GATES.

Specification forming part of Letters Patent No. **48,309**, dated June 20, 1865.

To all whom it may concern:

Be it known that we, F. RAYMOND and A. MILLER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Fence-Gates; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the gate. Fig. 2 is a side elevation. Fig. 3 is a detached section.

Like letters of reference refer to like parts in the views.

Our improvement relates to the mode of operating gates, as herein described.

A represents the gate, between the posts B and C, that is hinged to the post B.

F is an arm or guide, forming the segment of a circle, that is secured to the top of the hinged end of the gate by a plate, D, and screws *e*, and extends round on the other side of the post B, as represented, fitting in a place cut out in the upper rail, *b*, of the fence. This arm is grooved out on the under side, as shown in Fig. 3, in which a small pulley, arranged in the rail *b*, runs as the gate is opened and closed. (Indicated by the dotted lines *d* in Fig. 2.) The gate swings in the plane of the circle of the segment F, as the point *c*, on which it turns or is hinged to the post, is the center of the segment of the circle forming the arm. The plate D, by which the arm F is secured to the gate, forms a part of the upper hinge, as shown at *c* in Fig. 1.

f is a cord passing over the pulley *d* on the side that the arm is on, and is attached to the arm, the cord suspending a weight in the lower part of the fence, as indicated by the dotted lines *g* in Fig. 2.

This gate is designed to open but in one direction, and fastens as it shuts by means of a spring-latch, E. When the gate is opened more or less, as indicated by the red line in Fig. 1, the arm F is moved round, as indicated by the dotted lines in Fig. 1, drawing the cord over the pulley, elevating the weight *g*, and when the gate is released it immediately swings shut, by means of the weight drawing the arm F back to its former position, as shown in the figures. The momentum of the gate decreases gradually as it closes, for the more the arm F is turned round and the cord drawn over the pulley the greater will be the leverage and the force with which the gate is first moved as it closes, causing it to swing shut smoothly, without slamming or shutting with a force that is not required.

In place of the arm F being on the side of the gate, as represented, it can be on the other side, or there can be a similar arm, as seen at J, in which the cord will be attached at *i* to the end of the arm, and pass over a pulley connected to the post or rail *b*, or over the pulley *d*, so that when the gate is opened the cord or chain will be drawn over the pulley that will close the gate when released, as with the other arm. The arm J can be connected to the gate by the plate D, as is the arm F, and either of the arms can be used, as both operate the gate with ease and facility, in a similar manner. The groove in the arm F, over the pulley, protects the pulley and cord and prevents the cord from wearing out so rapidly as it would otherwise.

What we claim as our improvement, and desire to secure by Letters Patent, is—

The arm F or J, in combination with the gate A, cord *f*, and weight *g*, when combined and operated substantially as and for the purpose set forth.

FITCH RAYMOND.
AUGUST MILLER.

Witnesses:
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