

F. Raymond,

Gate.

No. 10,765.

Patented Apr. 12, 1870.

Fig. 1.

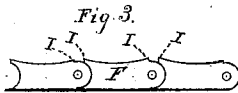
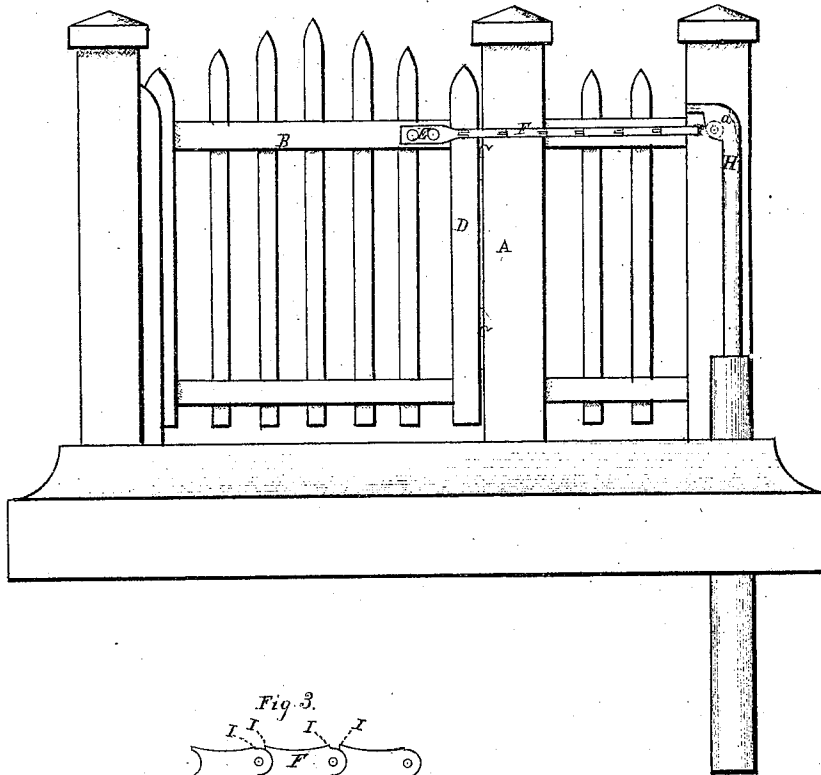
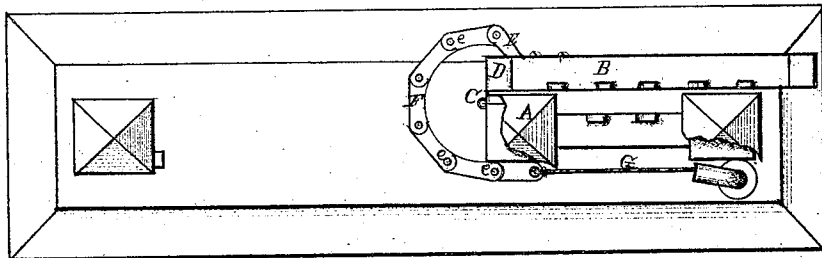


Fig. 2.



Inventor.

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Witnesses.

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FITCH RAYMOND, OF CLEVELAND, OHIO.

Letters Patent No. 101,765, dated April 12, 1870.

IMPROVEMENT IN GATES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, FITCH RAYMOND, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Gate; and I do hereby declare that the following is a full, clear, and complete description of the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a side view of the gate.

Figure 2, a view of the top.

Figure 3, a detached section.

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

The object this invention has in view, is a self-closing gate.

The devices employed for the purpose consist of a chain, the links of which are so connected to each other that the chain can be deflected from a right line to a circle of a certain diameter, and no less, one end of said chain being attached to the gate, whereas the other is attached to an ordinary chain or rope falling over a sheave to the ground, and to the end thereof is attached a weight, all of which is more especially described hereinafter.

In the drawing—

Fig. 1, A, represents a post, to which the gate B is hung by a pair of ordinary hinges, C. A top view of the upper hinge is shown in fig. 2.

To the upper rail D of the gate is secured an arm, E, fig. 2, to which is attached one end of the chain F, whereas the opposite end of said chain is attached to an ordinary chain or rope, G, received into a tube, H, into which it falls over a sheave, a, by being attached to a weight in the lower and larger end of the tube.

The peculiar construction of the chain F is such that, when deflected from a right line in one direction, it will describe a circle of a certain diameter, and a circle of no less a diameter, for the reason that the shoulders I, fig. 3, near the articulations of the links, will come together, as shown in fig. 2, thereby preventing a quicker curvature of the chain.

The application of said chain to the gate is shown

in fig. 1, in which it will be seen that one end thereof is attached to the arm E, whereas the length of the chain extends back to the end of the tube. In this position of the chain it is straight, and the gate closed, as seen in the drawing, fig. 1. Now, on pushing open the gate, as shown in fig. 2, or less, the chain F will be drawn around by the arm E, and, in consequence of the closing together of the shoulders I, the chain will describe a circle concentric with the hinge C, and each pivoted articulation c of the chain will be equidistant from the hinge.

By this it will be obvious that the draft exerted upon the gate, by the weight attached to the end of the chain or cord G, will have a leverage power upon the gate equal to the distance that the pivot of the arm E is from the hinge, and will therefore cause the gate to swing back and close, as shown in fig. 1.

This manner of closing the gate is simple and certain in its operation, and can be readily applied to all gates hung on an ordinary hinge.

The weight attached to the end of the cord for drawing the gate fast may be used without the tube, if so desired.

In the event that the tube is used, it is sunk into the ground, and, being made tight, it will be free from water or dust, so that the weight will move freely therein. If used without said tube the cord is run up over a sheave secured to a post, in order to obtain a sufficient length of cord to allow the gate to swing open.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

The chain F, constructed with joints C and shoulders I, in combination with the arm E, gate B, and cord G, arranged and operating conjointly, substantially as and for the purpose set forth.

FITCH RAYMOND.

Witnesses:

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