L. E. THORSON.

Automatic Gate.

No. 167,954. Patented Sept. 21, 1875.

Fig. 1.

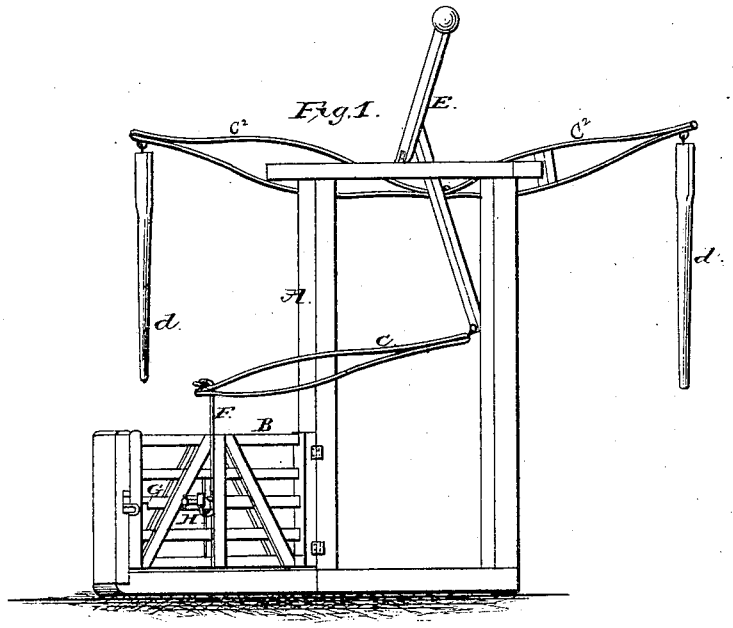
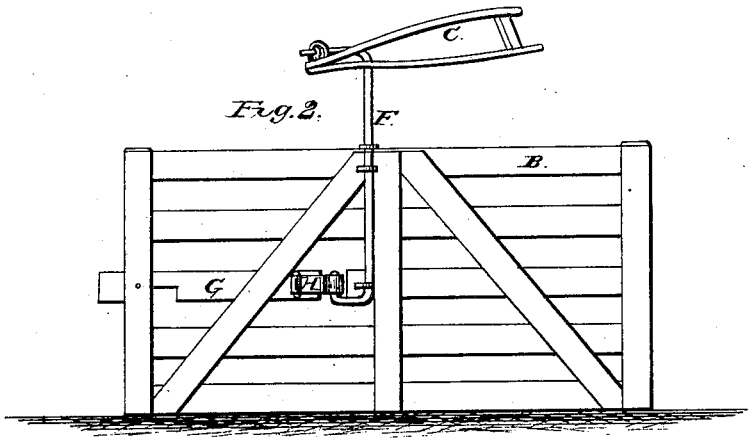


Fig. 2.



Witnesses:

L. Holden Parker

Otto H Orton.

Inventor:

Lewis E. Thorson.

UNITED STATES PATENT OFFICE.

LEWIS E. THORSON, OF CLINTON, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO STILES S. NORTHUP, OF SAME PLACE.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **167,954**, dated September 21, 1875; application filed June 2, 1875.

To all whom it may concern:

Be it known that I, LEWIS E. THORSON, of Clinton, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Farm-Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved method of manipulating farm-gates in opening and closing, latching and unlatching, by means of ordinary hand-pulls, which actuate the mechanism for the purpose in question, as shown, and hereinafter fully explained.

In the drawings, Figure 1 is a plan view of the gate complete, and Fig. 2 is a similar view of the gate and latching device detached, in which drawings letter A represents the frame of the gate; B, the gate; G, the latch; H, a pitman by which the latch is actuated, and is at its front end hinged to the rear end of the latch, the opposite end being also hinged or pivoted to the crank at the lower end of the oscillating crane F; and to the crank at the upper end thereof is pivoted to the jointed lever C, the upper part of which is rigidly fixed at rather an acute angle to the weighted lever E, of which it forms a part, and which is hinged to the cross-beam of the gate-frame A, so as to oscillate freely when in operation. Levers C^2 are pivoted to and near each end of the cross-beam of the gate-frame, and are, at their inner ends pivoted to the upper part of the jointed lever C, which part occupies a horizontal position when the gate is fully open. The opposite ends of the levers C^2 are provided with hand-pulls *d*, all as shown. It will be seen that when the gate is closed a gentle pull at either of the handles *d* will set the whole working mechanism in motion, withdrawing the latch from its fastening, and carrying the gate fully open, where it is again securely latched by means of a suitable catch, as shown. When, by lifting upward by either of the handles *d*, the action of the whole mechanism is reversed, the latch is carried forward till released from the catch, as shown, and the gate properly closed. When the gate has traversed about one-half the required sweep, in opening or closing, the momentum then acquired by the weighted lever E will carry the gate to its normal position, open or closed, so that the pull or lift upon the handles *d* need not be continued more than to give a smart but gentle pull or lift and then let go.

Having thus described the construction, arrangement, and manner of operating my improved gate, what I claim as my invention, and desire to secure by Letters Patent, is—

The latch G, pitman H, crane F, jointed lever C, weighted lever E, levers C^2, and pulls *d*, in combination with the gate B and frame A, the whole constructed and arranged substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of May, 1875.

LEWIS E. THORSON.

Witnesses:

L. HOLDEN PARKER,

OTHO H. ORTON.