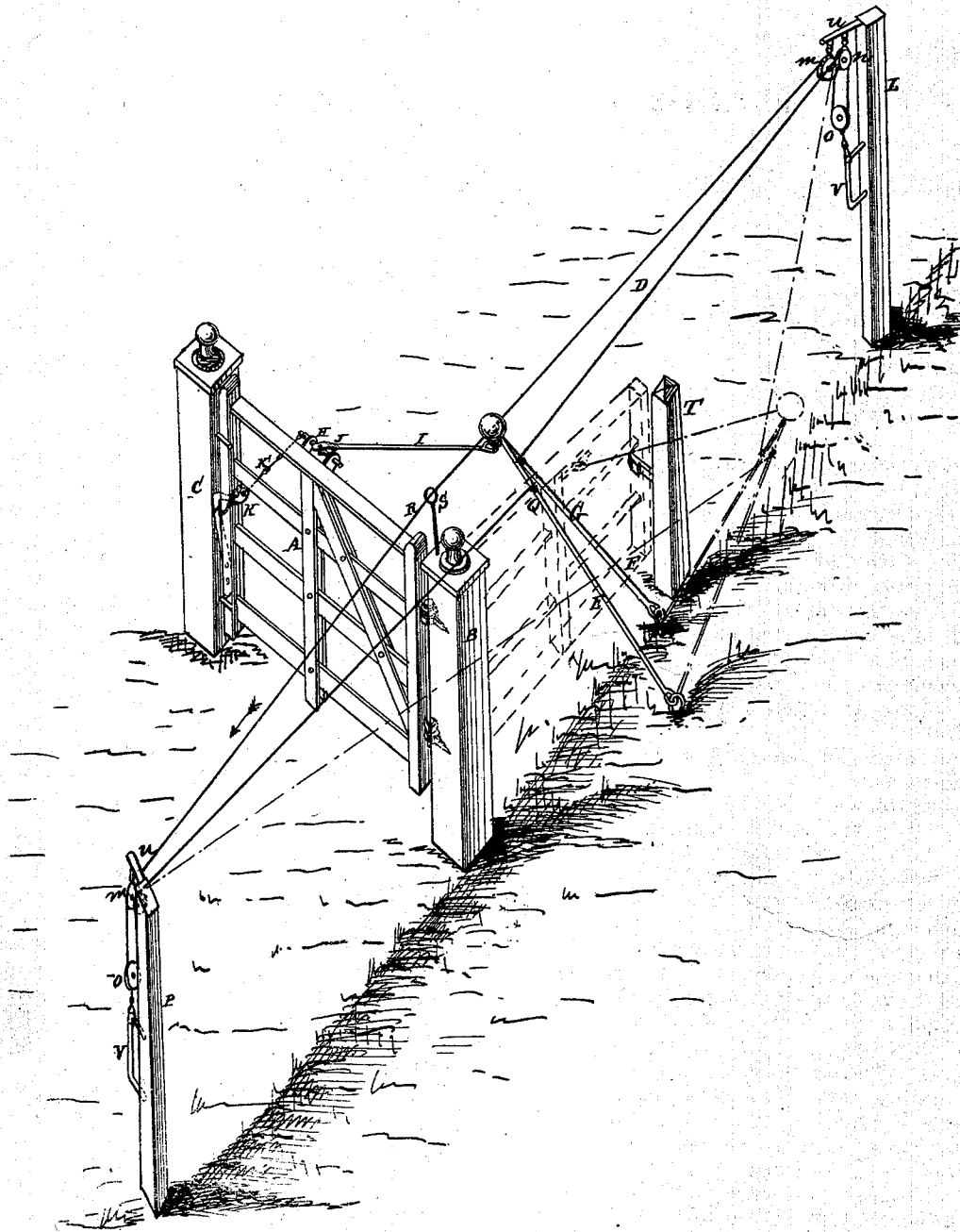


J. GROBB.
Automatic-Gates.

No. 146,823.

Patented Jan. 27, 1874.



Witnesses:

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UNITED STATES PATENT OFFICE.

JACOB GROBB, OF CLINTON, CANADA.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **146,823**, dated January 27, 1874; application filed August 4, 1873.

To all whom it may concern:

Be it known that I, JACOB GROBB, of Clinton, in the county of Lincoln, Province of Ontario and Dominion of Canada, have invented a new and useful Improvement in Gate Attachments, of which the following is a specification:

The invention relates to an improvement in automatic gates.

The improvement consists in so arranging a pivoted weighted frame and endless cord in connection with the gate that the same is swung in either direction, to open or shut it, by a positive movement of said frame, so that the gate may be operated under unfavorable conditions, as in deep snows and high winds.

The accompanying drawing is a perspective view of a gate arranged according to my invention.

Similar letters of reference indicate corresponding parts.

A is the gate, which is made in the ordinary manner. B is the post to which the gate is hinged. C is the post to which the gate is fastened when closed. This gate is opened and closed by means of a cord, D, the ends of which are attached to the frame G. The legs of this frame are confined to the ground by means of eyes, so that the frame may freely vibrate back and forth from an upright position. The eyes which confine the frame are placed at an angle of thirty degrees, more or less, with the closed gate. The top of the frame is connected with a sliding bar, H, by means of a rod, I, and clevis J, and the bar is connected with the fastening-spring K of the gate by the rod K'. When the gate is closed, the frame is inclined and stands at an angle with the surface of the ground of about thirty degrees. One end of the cord or rope D is attached to one leg of the frame, and then extends to the upright standard L, where it passes through the tackle-blocks *m*, *n*, and *o*, and is extended to the standard P, where it passes through three more tackle-blocks, the same as before, from which blocks it is returned, and its other end is fastened to the other leg of the frame, as

seen at Q. The long stretch of cord R passes through a supporting-eye, S, on the gate-post B. When the cord is drawn in the direction indicated by the arrow, the gate will be opened. The cord will freely render through all the tackle-blocks, and the frame will be drawn to an upright or perpendicular position when the gate is about half open, or at an angle with the road of about forty-five degrees. A continued pull opens the gate entirely, and inclines the frame in the opposite direction, and to about the same angle at which it stood when the gate was closed. T is a post, to which the gate is fastened by the spring K when the latter is opened. The first pull on the cord will be felt by the frame, which will commence to rise, and in doing so will draw on the sliding bar H, and thereby draw back the fastening-spring K and unfasten the gate. The gate is closed by pulling the cord in an opposite direction, and the same effect is produced on the frame. As it commences to rise it slides the bolt H, and draws the spring K from the catch on the post T. The tackle-blocks *m n* are attached to brackets *u u*. The blocks *o* are attached by rings to the long staples V V, so that they rise and fall according to the tension of the cord. Any kind of pulley suitable for the purpose may be used instead of the tackle-blocks. The cord may be of any length so that a person in a wagon or carriage, or on horseback, may readily open and close the gate without leaving his seat.

I do not claim operating a horizontally-swinging gate through the medium of an independently-pivoted frame; but

I claim as new and desire to secure by Letters Patent—

The combination, with the gate A and latch mechanism K K' H, of the pivoted and weighted frame G, rod I, and endless rope or cord D, connected with posts L P, all as shown and described.

JACOB GROBB.

Witnesses:

W. A. BRENNAN,
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