E. B. WHITAKER.

Gates.

No. 133,960. Patented Dec. 17, 1872.

Fig. 1.

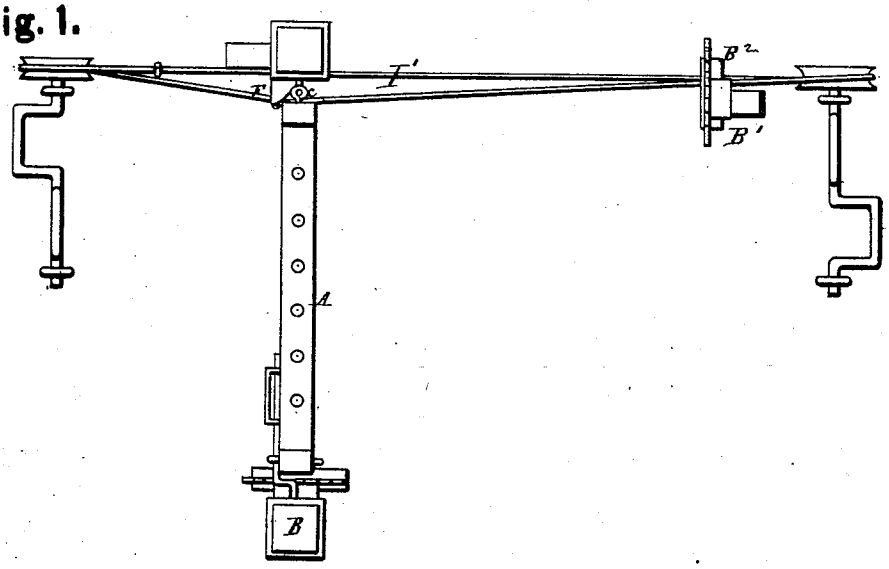


Fig. 2.

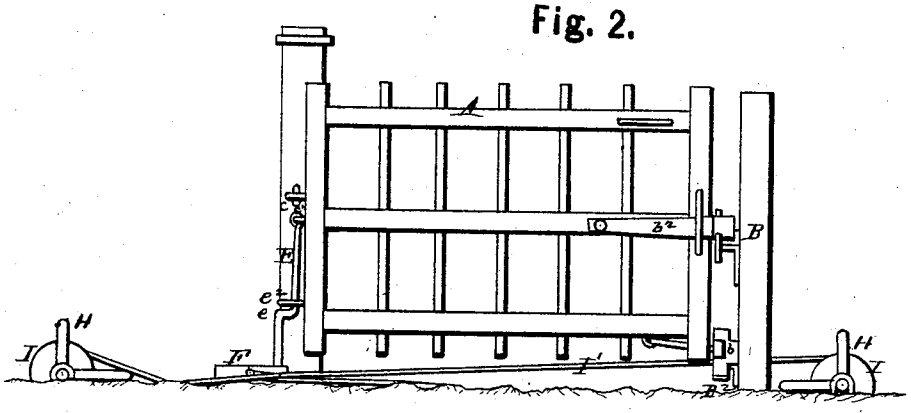
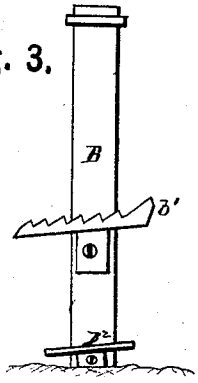


Fig. 3.



WITNESSES.

E. A. Bates

Geo. Ellsham.

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UNITED STATES PATENT OFFICE.

ELIJAH B. WHITAKER, OF BEL AIR, MARYLAND.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **133,960**, dated December 17, 1872; antedated December 10, 1872.

To all whom it may concern:

Be it known that I, ELIJAH B. WHITAKER, of Bel Air, in the county of Harford and State of Maryland, have invented a new and valuable Improvement in Automatic Gates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my invention. Fig. 2 is a front elevation of the same. Fig. 3 is a detail view.

This invention has relation to that class of automatic farm-gates in which the movement of the gate is effected by the turning of crank-shafts located at a distance therefrom and moved by the wheels of a carriage or wagon passing over them. This invention consists in the construction and novel arrangement of devices connecting said crank-shafts with the gate in such a manner that when one of said crank-shafts is operated the gate shall be thrown out of plumb, and be thereby made to swing from end to middle post, or vice versa, as hereinafter described.

In the accompanying drawing, A represents a farm-gate so hung as to open only one way. The gate has two hinges, one consisting of an eyebolt, *c*, hung on a hook, *c'*, fastened to the hinge-post *d*. The other hinge comprises the rod E hinged to the post of the gate and made with a knee-bend, *e*, and the quadrant-pulley F pivoted at the angle of its two equal sides, and receiving at another angle the lower end of the hinged rod E. The rod E works freely within a staple, e^2. H designates the crank-shafts, through which the gate is opened and shut when a vehicle approaches and leaves it. I represents pulleys attached to said crank-shaft. I′ is a cord, which, being passed around and secured to each of said pulleys, is connected at its ends to the quadrant-pulley F in such a manner that by the turning of either of said pulleys I the quadrant-pulley shall be moved. The proper way of arranging the cord is to attach the ends to the angle of the pulley F furthest from the shaft-pulley whence they proceed, as shown in the drawing.

The turning of one of the crank-shafts by means of a carriage or wagon wheel has the effect of turning the quadrant-pulley, and so of raising the forward end of the gate from the catch and of tilting the gate on its hinges. When the gate is thus thrown out of a vertical line it immediately tends to swing to that side toward which it leans, and thus either opens or closes according to its position when operated upon.

I am well aware that it is not new to use a full circular pulley for the attachment of the operating-chains; therefore, I do not claim such.

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

The quadrant-pulley F and the bent hinge-bar E, in combination with the gate A and the cord I′, pulleys H, and crank-shafts I, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ELIJAH B. WHITAKER.

Witnesses:
D. D. KANE,
GEO. E. UPHAM.