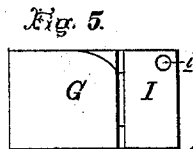
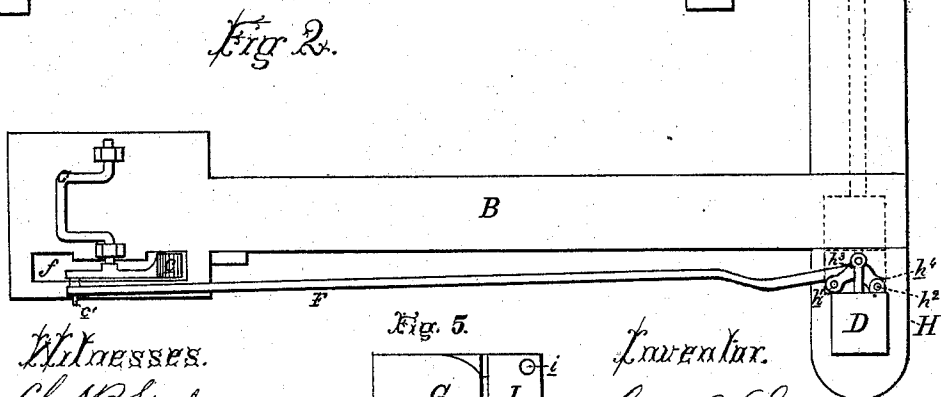
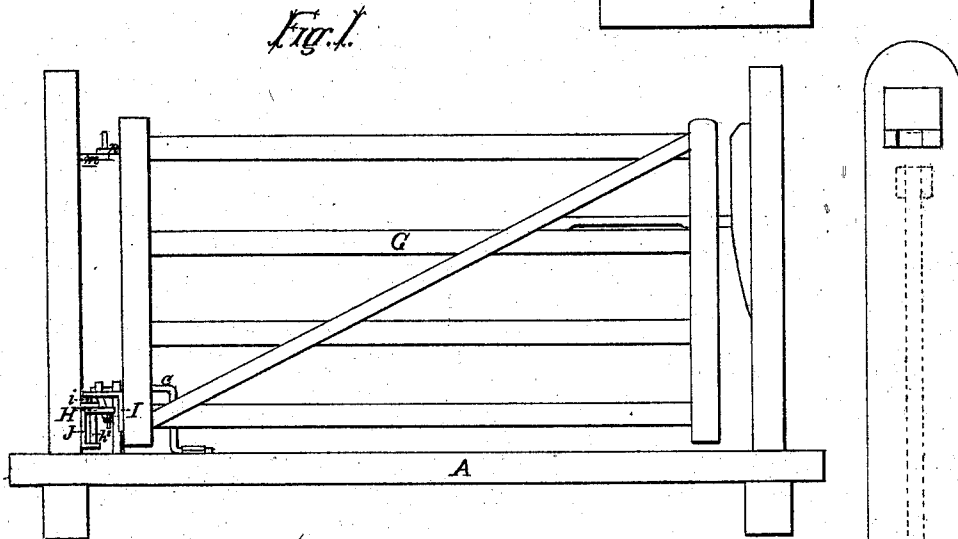
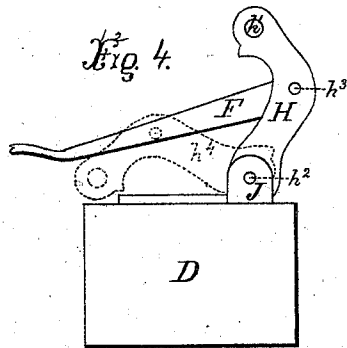
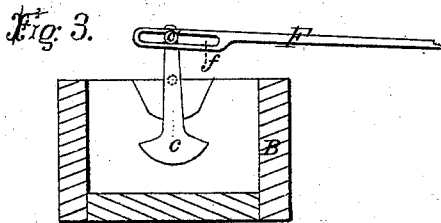


G. B. STEVENSON.
Automatic Gates.

No. 137,971.

Patented April 15, 1873.



Witnesses.
Cha. A. Steele,
E. A. Bates

Inventor.
Geo. B. Stevenson,
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Attorneys,

UNITED STATES PATENT OFFICE.

GEORGE B. STEVENSON, OF UPPER SANDUSKY, OHIO.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **137,971**, dated April 15, 1873; application filed January 25, 1873.

To all whom it may concern:

Be it known that I, GEORGE B. STEVENSON, of Upper Sandusky, in the county of Wyandot and State of Ohio, have invented a new and valuable Improvement in Automatic Gate Hinges and Rods; 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 an elevation of my improved gate. Fig. 2 is a plan view of the sills with the gate removed. Fig. 3 is a detached view, showing a portion of the operating-rod and the weighted crank. Fig. 4 is a detached view of the gate-post and a portion of the lower hinge and operating-rod. Fig. 5 is an inverted view of a plate attached to the gate and forming a portion of the lower hinge.

My invention relates to that class of automatic gates which are opened and closed by the wheel of a vehicle depressing a vertically-projecting crank, which is connected by a rod with the lower hinge of the gate; and it consists in the construction and novel arrangement of the parts composing the lower hinge, as hereinafter more particularly described.

In the drawing, A represents the sill in which the gate-posts are secured; and B the sill in which the wheel-crank is arranged. The wheel-crank C is provided with a weight, *c*, which serves to keep it in a vertical position when not in operation. A wrist-pin, *c'*, on the crank C engages with a slot, *f*, near one end of a rod, F, the other end of which is pivoted to the elbow-lever H. I represents a plate, which is secured to the gate and forms one part of the lower hinge. It is bent outward from the gate toward the post, and is intended to be large enough to cover the other parts of the hinge and protect them from rust and dirt when the gate is closed. From one corner of the plate I a pintle, *i*, projects downward and engages with an eye, *h*¹, in one end of the lever H. J represents a plate attached to the post and having its ends bent outward toward the

gate and formed into perforated lugs, which receive the ends of a pivot, *h*², on the end of the lever H opposite to the eye *h*¹. The lever H may be a curved elbow-lever, as preferred. At a point, *h*³, midway between the ends *h*¹ *h*², the rod F is pivoted, so that when the gate is closed the two ends *h*¹ *h*² and the point *h*³ form the three points of a triangle, as shown in Fig. 2. Near the end *h*² is an angular enlargement or projection, *h*⁴, which abuts against the post D when the gate is opened. The upper hinge may be of any suitable form and construction, sufficiently strong to sustain the weight of the gate. That shown in the drawing consists of an ordinary hook, *m*, attached to the post D, passing through an eye, *n*, attached to the gate G in a vertical line midway between the points *h*¹ and *h*². The crank C is journaled on or near the surface of the sill B; and the weight *c* oscillates in a casing or recess formed in said sill, being attached to a bar at the end of one of the journals. The wrist-pin *c'* may be on the opposite or upper end of said bar, or on the crank itself, as may be preferred. The slot *f* in the rod F is of suitable dimensions to allow the crank C to resume its vertical position as soon as pressure is removed from it, so that, whether the gate is open or closed, the crank is always in position to be acted upon by the wheel.

The operation is as follows: The parts being in the positions shown in Fig. 2 the axis of the gate is inclined at such an angle as to have a tendency to close it. When a vehicle approaches the gate the wheel depresses the crank C, throwing the rod F forward and reversing the inclination of the axis of the gate, throwing it into such an angular position as to cause the gate to swing open. The crank resumes its vertical position, and the gate remains open until the crank is depressed in the opposite direction, which causes the parts to resume their previous positions.

By arranging another crank and rod on the opposite side of the gate and connecting the slotted end of the rod below the fulcrum of the crank, instead of above it, the gate may be opened and closed by vehicles going in either direction.

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

The elbow-lever H turning on the pivot h^2 attached to the plate I hung on the post D, with its front end perforated to receive the pintle i, which is attached to the corner of the plate J on the gate-post, and a pin, 7^a , to engage with the rod F, substantially as shown, and for the purpose specified.

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

GEORGE B. STEVENSON.

Witnesses:

R. L. STEVENSON,
W. T. McDONALD.