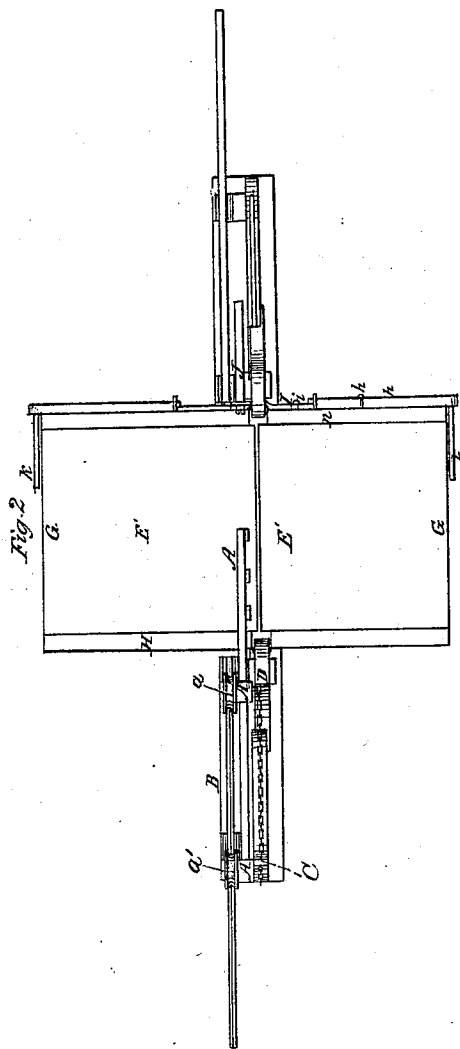
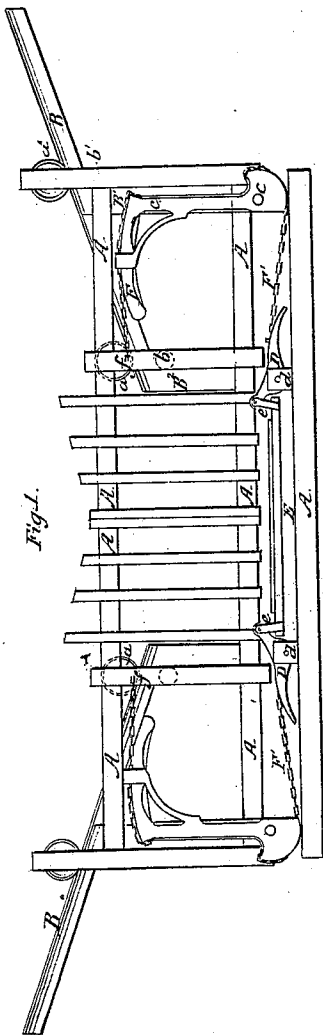


E. HARTER.
Automatic Gate.

No. 82,831.

Patented Oct. 6, 1868.



Witnesses.
Jos. L. Brown
John C. Minn

Inventor.
Elihu Harter
by J. Brown
att'y

United States Patent Office.

ELAM HARTER, OF DOWAGIAC, MICHIGAN.

Letters Patent No. 82,831, dated October 6, 1868.

IMPROVEMENT IN AUTOMATIC GATE.

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, ELAM HARTER, of Dowagiac, in the county of Cass, and State of Michigan, have invented a new and useful Improvement in Automatic Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon.

Figure 1 is a front elevation of the double gate.

Figure 2 is a top view of the same, one of the gates being removed.

Figure 3 is a side view of one of the sills, between which the platforms are located, with the locking-mechanism attached.

A is the gate, and B is an inclined bar, upon which the gate rides, running upon truck-wheels, *a a'*, attached to the gate. Said inclined bar B is mounted upon two fixed posts, *B¹ B²*. Two friction-wheels, *b b'*, are also attached to the gate, below the inclined bar B. C is a bent or angular lever, turning on a fulcrum, *c*, attached to the fixed post *B¹*. D is another lever, turning upon a fulcrum, *d*, to the inner end of which a cross-sill, E, is suspended, by means of a link or stirrup, *e*. Said cross-sill E supports one end of a vibrating floor or platform, *E'*, over which all vehicles must pass in going through the gate. The levers C and D are connected, at the top and bottom, by means of chains F and F', said chain F being also attached to the gate at *f*. Said floor or platform *E'* oscillates upon a shaft at the rear end, G.

It will be seen that, when a vehicle, or any other sufficient weight, presses upon said platform, to depress its inner end, the outer end of the lever D will rise, drawing inward the chain F, which, acting upon the lower end of lever C, will throw the upper end of said lever outward, causing the chain F, which is attached to the gate, to draw outward, carrying the gate up the inclined bar B, and out of the roadway.

When the pressure upon the platform is removed, the gate will run down the inclined bar B, by the force of gravitation, till it meets the corresponding gate on the other side, in the centre of the roadway.

To obviate all danger of the gate's being opened by loose animals stepping upon the platform, I have provided a lock, which I will now proceed to describe.

The platform is placed between two sills, H and H'. To the side of one of these sills, H, is attached a lever, *h*, turning upon a fulcrum, *h'*. The inner end of said lever *h* supports the outer end of another lever, I, turning upon its fulcrum, *i*, and the inner end of said lever I bears down upon the inner end of a spring-lever, J, lying at right angles thereto, under the gate. The front end of said spring-lever J is forked, and, when not depressed, embraces a pin projecting from the lower side of the bottom sill of the gate, and thus locks the gate, and prevents it from moving outward. From the rear end of lever *h* projects, at right angles, and in a horizontal position, an arm, *k*, which lies a little above the rear end of the platform.

When a vehicle approaches the gate, the wheels, in passing over said arm *k*, will depress the back end of the lever *h*, which, acting upon said lever I, will cause its inner end to be depressed, bearing down the inner end of the spring-lever J, so that its fork will clear the pin projecting from the gate-sill, thus unlocking the gate, and allowing it to be carried outward, by means of the pressure on the platform, as before described.

The operation upon the opposite gate will be precisely the same as here described, so that the two gates will approach and recede from each other simultaneously.

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

1. The combination of the gate, truck-wheels, inclined bars or rails, and vibrating platform, with the levers and chains, (or equivalents of the latter,) by means of which, pressure upon the platform causes the gates to run asunder on the inclined rails, substantially as described.

2. The mechanism, herein described, for locking and unlocking the gate, substantially as shown and described.

ELAM HARTER.

Witnesses:

Jos. L. COOMBS,

J. J. COOMBS.