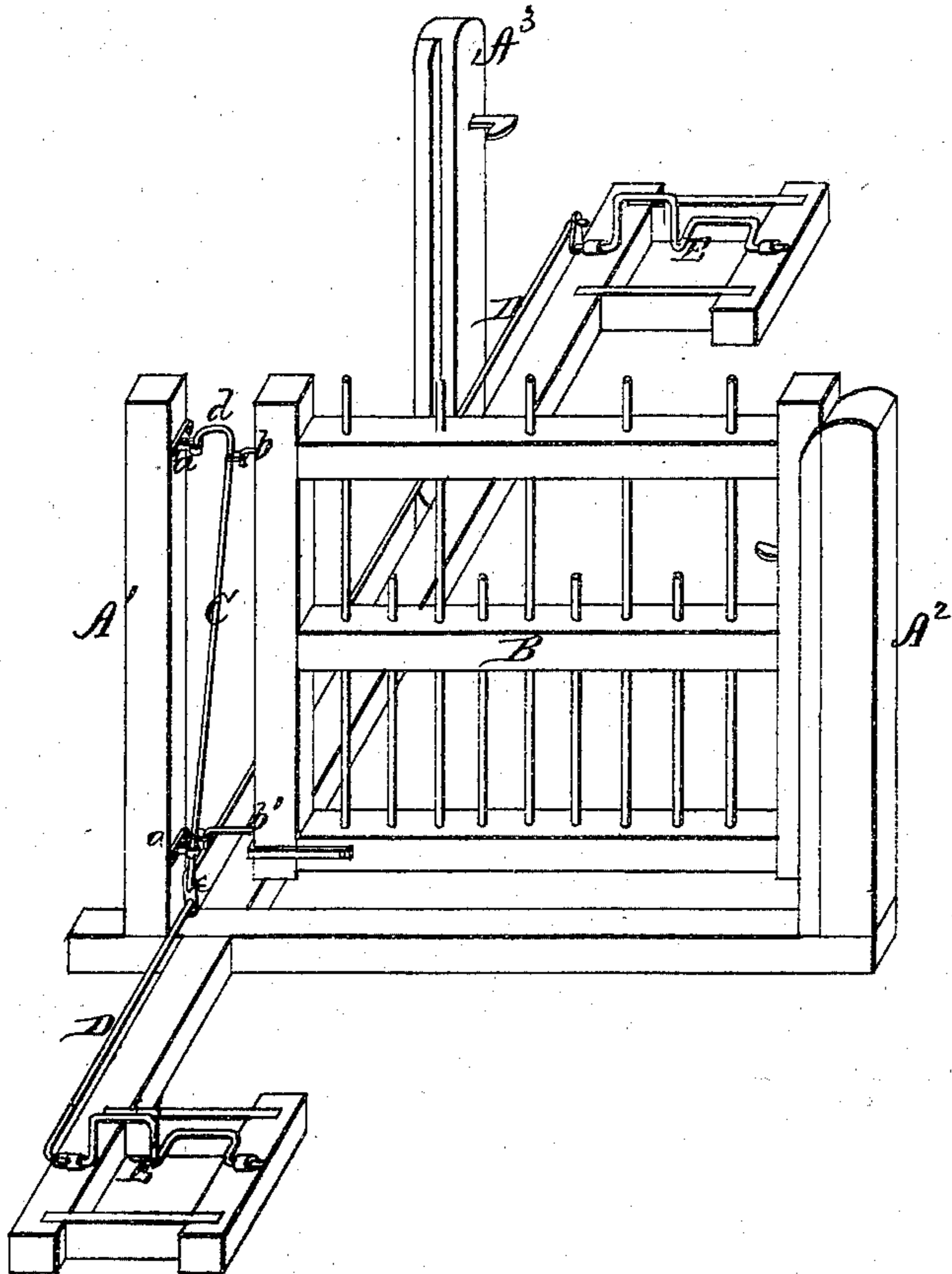


N. LONG.
Automatic Gates.

No. 138,033.

Patented April 22, 1873.



Witnesses

John A. Ellis
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UNITED STATES PATENT OFFICE.

NATHAN LONG, OF MUNCIE, INDIANA.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **138,033**, dated April 22, 1873; application filed January 27, 1873.

To all whom it may concern:

Be it known that I, NATHAN LONG, of Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements 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 drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a gate to open and close itself automatically, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a perspective view of my gate.

A¹, A², and A³ represent the gate-posts, which are set in the ground in the usual manner. On the posts A¹ are bolted eyes *a a*, in which the rod C rotates. The gate B swings on the rod C by the hinges *b b'*. The rod C is provided, at its upper end, with a hook or crank, *d*, which throws the rod a certain distance past a vertical line in the direction the gate is to swing. The hinge *b'*, at the lower end of the stile of the gate, is made equal in length with the hook *d* and the upper hinge *b*, by which arrangement the gate will always stand plumb when at rest. On the lower end of the rod C is a crank or cross-bar, *e*, to each end of which is attached a horizontal rod, D, and at the outer end of each rod is a double crank, E.

The depression of one or the other of these cranks by the wheels of the vehicle on one side opens and closes the gate, for, by the arrange-

ment of the inclined rod, as described, the gate is unlatched and drawn away from either of the latching-posts A² A³, as the case may be, at the same time, and thrown at an angle in the direction it will swing. This change of position changes the center of gravity and it will swing swiftly to place, where it latches again.

I am aware that gates have been before used having a vertical hinge-rod with cranks upon each end by which the gate is operated, and I do not, broadly, claim such devices.

The advantage presented by my invention over those now in use is that, by constructing the rod C as shown and described, and placing it on an incline a certain distance past a vertical line in the direction the gate is to swing, the gate will, when left free, stand plumb, or in other words, close itself, in case the power applied by the carriage-wheel passing over the crank E fails to close the gate; or when, from any other cause, the gate is left open, it will, from the construction and arrangement of parts, close itself.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The inclined rod C with crank *d*, eyes *a a*, hinges *b b'*, lever *e*, rods and cranks D E, and gate B, all constructed and arranged as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

NATHAN LONG.

Witnesses:

ASA H. HODSON,
C. H. GREU.