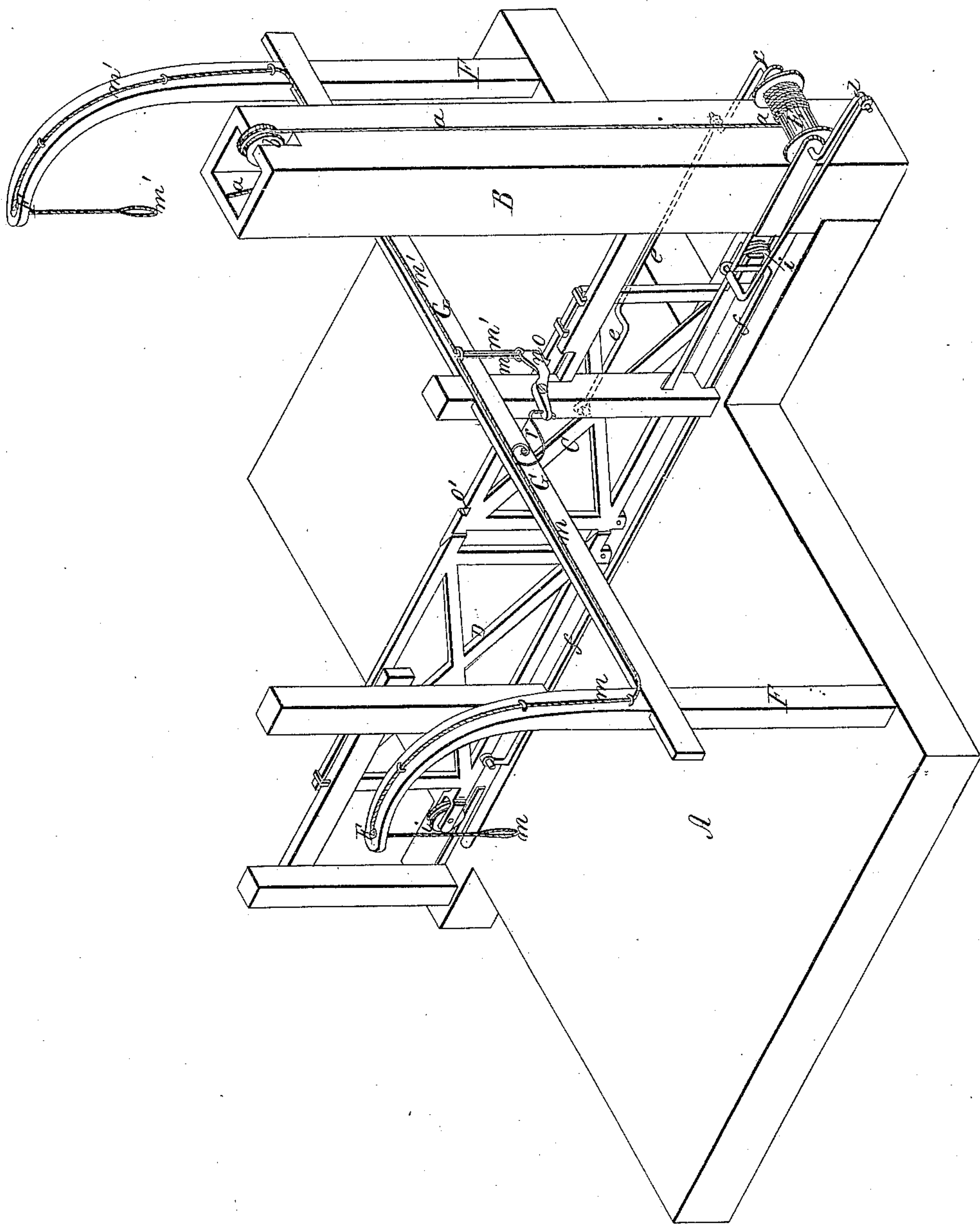


W. G. Philips.
Automatic Gate,

N^o 16,187.

Patented Dec. 9, 1856.



UNITED STATES PATENT OFFICE.

WILLIAM G. PHILIPS, OF NEWPORT, DELAWARE.

APPROACH-OPENING GATE.

Specification of Letters Patent No. 16,187, dated December 9, 1856.

To all whom it may concern:

Be it known that I, WILLIAM G. PHILIPS, of Newport, in the county of Newcastle and State of Delaware, have invented certain
5 new and useful Improvements in Self-Acting Farm, Railroad, and other Gates, and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents a perspective view of a pair of gates
10 operated by my plan, but which is equally applicable to a single gate.

I am aware that gates have been made to turn upon their hinges by a dropping
15 weight, or similar device, but the difficulty in this kind of gate is this, that the wind either retards its opening, or slams it shut, or both, and makes its action very uncertain in windy weather, for in swinging open it
20 must at some point meet the resistance of the blast, which strikes it broadside, and then again it is carried so far, and with such force as to materially endanger the gate.

My invention relates solely to a gate, running on fixed ways, or reciprocating between
25 fixed points, and so connected with a falling weight as that by raising a catch, conveniently reached by the operator, the gate or gates will run back and be caught and held,
30 and by again being raised, will run forward and be caught and held, as will be described.

A represents a base or platform upon which the gates, and the several parts united to it, are placed, and also may represent the direction of the road bed across
35 which the gates stand when shut. On one side of the road bed, is a hollow column, or case B, within which is contained a weight attached to the cord or chain *a*, which passing over the pulley *b*, passes down to a drum
40 or windlass E, upon which it is wound, as the weight is raised up in the case or column. On the shaft of the drum E, are two cranks *c*, *d*, one at each end of said drum.
45 The crank *c*, is connected to the gate C, by the connecting rod *e*, and the other crank *d*, is connected to the other gate D, by the connecting rod *f*, said cranks standing in the same plane in regard to each other, so that
50 while the one *c*, draws its gate (C), in one direction, the other crank *d*, shall run its gate in a contrary direction, and thus they both start at the same time, moving from each other to open, and toward each other
55 to close—the length of the cranks being one half of the distance that each gate has to travel on its ways to open and close.

Of course a single gate can be used, where the track is narrow, without changing the character of the invention. The gates may
60 be provided with friction rolls, to facilitate their movement on the ways *i*, *i*.

F, F, are posts, arranged parallel with the road or passage, which the gate or gates are
65 to close, and their tops bend over toward the roadway, to bring into convenient position for the operator, the cords *m*, *m'*, which pass from thence down said posts, and along the rail G, to a point over the latch or catch *n*,
70 to which they are both fastened, as seen in the drawing. On the top rail of the gate C, are two notches *o*, *o'*, into which the latch or catch *n*, is thrown by the action of the spring
75 *r*, alternately, first to hold the gates open, and then after being a second time released, to hold them shut.

The operation is as follows: The weight being wound up, and the latch *n*, down in the notch *o*, holds the gates shut. To open
80 them it is only necessary to draw upon the cord *m*, which raises the catch *n*—the falling weight in the case B, turns the drum E, which through its cranks and rods runs the gates back, until the notch *o'*, comes to the
85 catch *n*—said catch being thrown into the notch *o'* by the spring *r*, which holds it open, as well as the other gate D. The operator then passes through the open way, and catching hold of the cord *m'*, again raises the
90 catch *n*, and releasing the gates, they again run together, and are there caught and held by the latch *n*, falling into the notch *o*. Thus the gates will run forward and back as often
95 as they are released from the latch, until the weight runs entirely down. It is then again wound up by taking hold of either of the cranks *c*, *d*, and turning them by hand.

Having thus fully described the nature of my invention, I would state that, I am fully
100 aware that gates have been made to turn on their hinges, or supports, by a falling weight. This I do not claim, but—

What I do claim, and desire to secure by Letters Patent, is,

Opening and closing a reciprocating gate
105 or gates, by means of a falling weight through the intervention of the cords, cranks, and rods herein described and represented.

WM. G. PHILIPS.

Witnesses:

WM. HARRISON,
MARTIN GALAGHER.