W. VOGAN.

Gate.

No. 211,445. Patented Jan. 14, 1879.

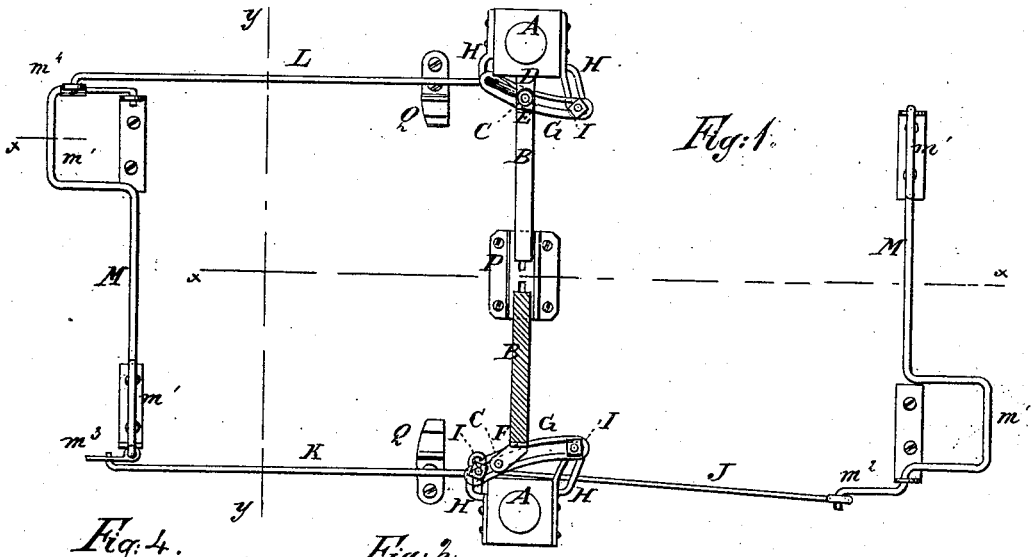


Fig: 1.

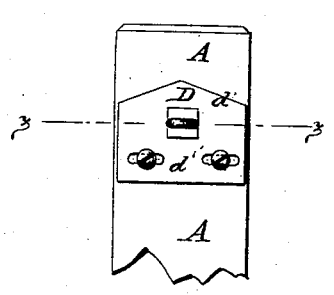


Fig: 4.

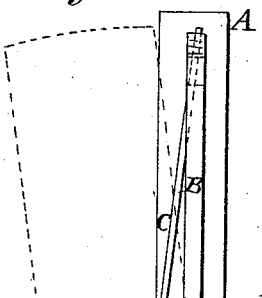


Fig: 2.

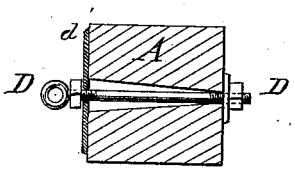
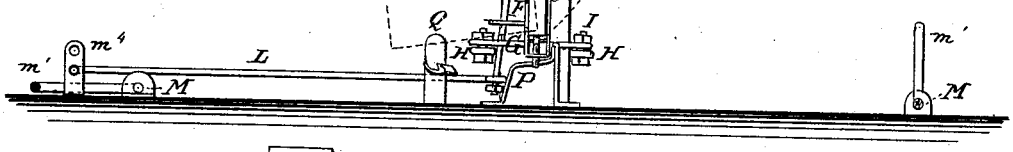


Fig: 5.



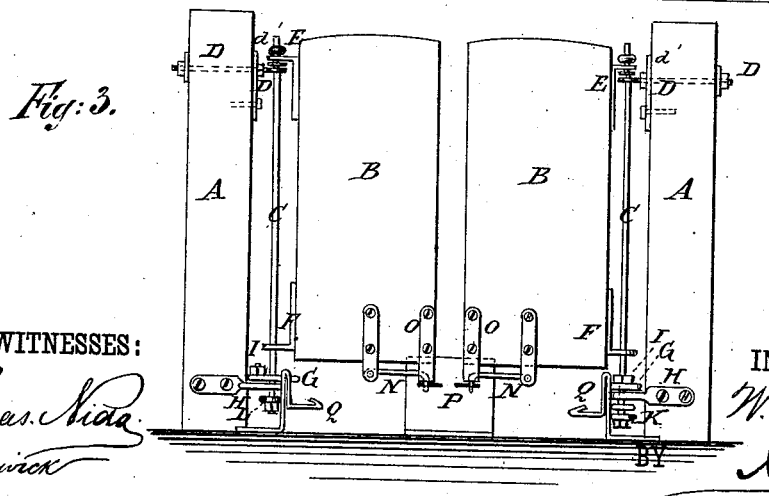


Fig: 3.

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UNITED STATES PATENT OFFICE.

WILLIAM VOGAN, OF NEWCASTLE, PENNSYLVANIA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **211,445**, dated January 14, 1879; application filed October 16, 1878.

To all whom it may concern:

Be it known that I, WILLIAM VOGAN, of Newcastle, in the county of Lawrence and State of Pennsylvania, have invented a new and useful Improvement in Gates, of which the following is a specification:

Figure 1 is a top view of my improved gate, partly in horizontal section to show the construction. Fig. 2 is a longitudinal section of the same, taken through the broken line *x x x*, Fig. 1. Fig. 3 is a cross-section of the same, taken through the line *y y*, Fig. 1. Fig. 4 is a detail view of the inner side of the upper part of one of the posts. Fig. 5 is a horizontal section of the same, taken through the line *z z*, Fig. 4.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved gate which shall be so constructed that it may be opened and closed by the wheels of a passing vehicle, which will not be liable to become clogged or frozen fast, which shall be easily accessible in all its parts for repairs, and which at the same time shall be simple in construction, inexpensive in manufacture, and very easily operated.

A A are the gate-posts, which are firmly set in the ground upon the opposite sides of the roadway. The gate is made in two parts, B B, which are hinged at their outer ends to the posts A.

C C are two rods, the upper parts of which pass through the eyes of the eyebolts D and the eye-straps E, attached to the upper parts of the posts and the parts of the gate, so as to form the upper hinges.

The eyebolts D pass through a hole in the plate *d'*, attached to the inner side of the post A, and through a tapering or V-shaped hole through the post A, and have nuts screwed upon them at both sides of the said posts to allow them to be readily adjusted. The plates *d'* have short slots formed through them to receive the screws or bolts that secure them to the posts A, so that they may be readily adjusted with the eyebolts D, and may hold the said eyebolts, when adjusted, securely in place.

The lower parts of the rods C pass through the eyes of eye-straps F, attached to the lower parts of the gate, which are inclined in the direction in which the gate opens. The lower parts of the rods C also pass through the longitudinal slots in the curved bars or links G, which are secured adjustably to the slotted outer parts of the arms or links H by bolts I. The other ends of the arms or links H are bolted to the opposite sides of the lower part of the posts A.

To the lower end of one of the rods C are attached the inner ends of two rods, J K, extending in opposite directions along the side of the roadway; and to the lower end of the other rod C is attached the end of the rod L, extending along the other side of the roadway in the same direction as the rod K.

To posts or other bearings at the sides of the roadway, and upon the opposite sides of the gateway, are pivoted two rods, M, upon each of which, near its ends, are formed cranks m^1. The cranks m^1 project at right angles with each other, so that one may be in a vertical position when the other is horizontal.

The outer end of the rod J is pivoted to an arm, m^2, formed upon the end of the rod M, and projecting in the opposite direction from the adjacent crank m^1.

The outer ends of the rods K L are pivoted to arms m^3 m^4, attached to the outer arms of the cranks m^1, in such positions that each of the said arms m^3 m^4 will be vertical when its crank is horizontal.

The rods J K L are made of such a length that the crank-rods M will be at such a distance from the gate B as to be struck by the vehicle-wheels before the horses have come so near the gate as to interfere with its movements.

It will be observed that when approaching the closed gate from either side the right-hand crank m^1 of the rod M upon that side of the gate will be vertical, and the driver must so guide his team that the right-hand wheels of the vehicle will strike it and force it down into a horizontal position, raising the other crank, m^1. This movement of the crank-rod M moves the lower ends of the rods C through the slots of the bars or links G, moving the lower outer corners of the gate to one side, so that the weight of the said parts will swing them open.

In passing through the gateway the driver guides his team so that the right-hand wheels

of the vehicle will strike the raised crank m^1 of the other rod M, and close the gate.

The rods M are made of such a length that when the right-hand wheels of the vehicle are passing over the cranks m^1 the left-hand wheels will be passing over the plain middle parts of the said rods.

To the lower edge of each part B of the gate is hinged the end of a rod, N, the other end of which is bent downward at right angles, and passes through a hole in the bend of a U-strap, O, attached to the lower forward corner of the said part B.

As the parts B of the gate swing shut the ends of the latch-rods N drop into holes in the catches P, attached to a post or other support in the center of the gateway. As the parts B of the gate swing open, the ends of the latch-rods N engage with catches Q, attached to posts or other supports at the sides of the roadway.

With this construction the first movement of the parts of the gate, when being opened and closed, releases the latches N, and leaves the said parts of the gate free to swing.

This construction allows the gate to be adjusted at its lower hinges or at its upper hinges, or at both lower and upper hinges, as may be required, for the purpose of regulating the vertical position of the gate, so that it will swing out by its own gravity under suitable conditions, and so as to allow any "sag" that may occur to be readily taken up by adjustment.

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

1. A gate-pintle, C, connected directly with the rod J, that is operated by crank M, in combination with the slotted guard-plate G, arranged substantially as shown and described.

2. The slotted guides G, made adjustable by links H and clamp-bolts I, as and for the purpose set forth.

3. The threaded eyebolt D, passed through a taper hole of post A, and provided with two nuts, in combination with the plate d', having a hole for the eyebolt and two horizontal slots to receive the clamping-bolts, as shown and described.

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Witnesses:
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