2 Sheets—Sheet 1.

D. K. MABIE.

RAILROAD GATE.

No. 180,483. Patented Aug. 1, 1876.

Fig. 1.

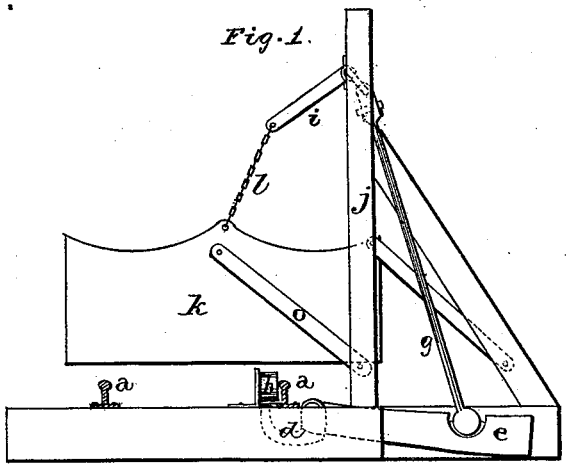
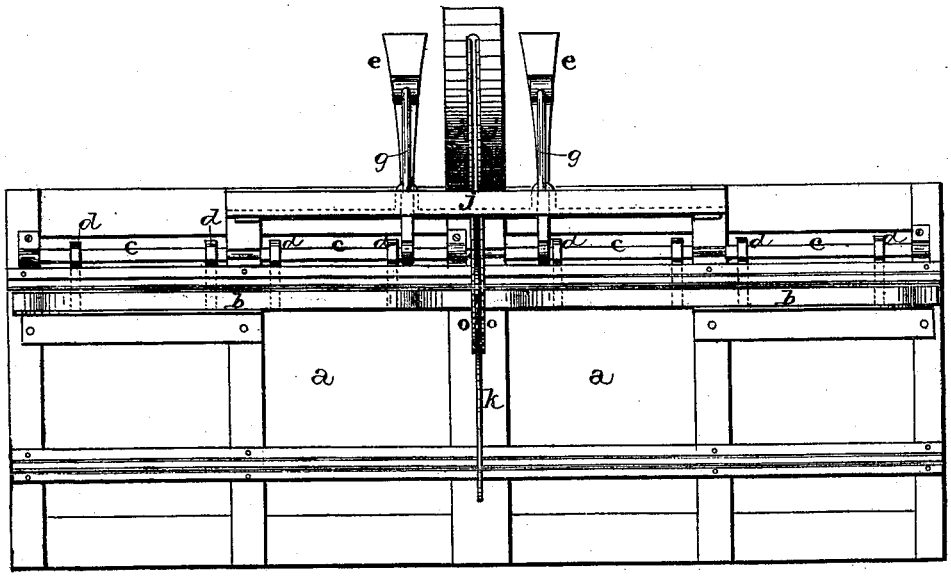


Fig. 2.



WITNESSES.

J. Wm. Garner,

F. M. Burnham,

INVENTOR.

Daniel K. Mabie

per

F. A. Lehmann, Atty.

2 Sheets—Sheet 2.

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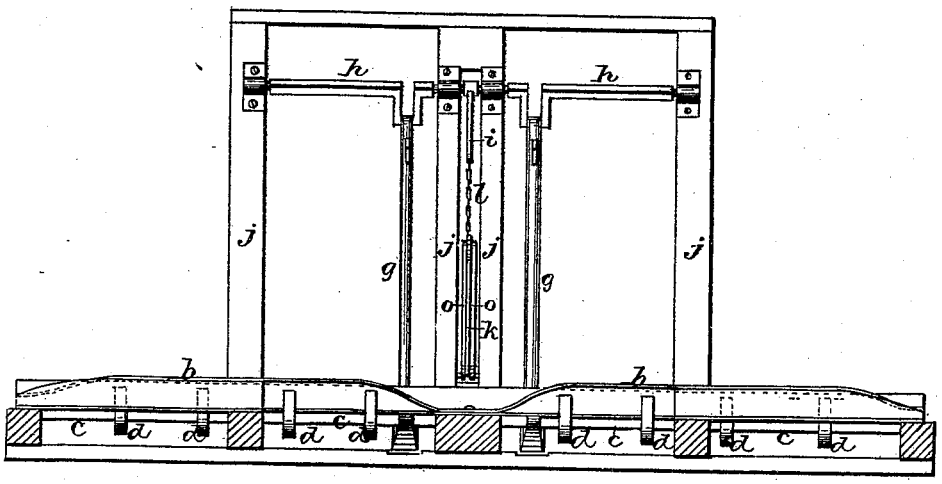
Fig. 3.



WITNESSES:

J. W^m Garner

F. M. Burnham.

INVENTOR:

D. K. Mabie

per

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UNITED STATES PATENT OFFICE.

DANIEL K. MABIE, OF BREWSTER STATION, NEW YORK.

IMPROVEMENT IN RAILROAD-GATES.

Specification forming part of Letters Patent No. **180,483**, dated August 1, 1876; application filed June 24, 1876.

To all whom it may concern:

Be it known that I, DANIEL K. MABIE, of Brewster Station, in the county of Putnam and State of New York, have invented certain new and useful Improvements in Railroad-Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in railroad-gates; and it consists in the arrangement and combination of parts that will be more fully described hereinafter, whereby the gate is raised upward and backward from over the track until the cars have passed by, when it automatically flies back into position again.

Figure 1 represents an end view of my invention; Fig. 2, a plan view of the same; and Fig. 3, a side elevation.

a represents the track, inside of one of the rails of which is placed a long flat spring, *b*, which has both of its ends left free, and is bowed upward for a suitable distance on each side of the center, where it is fastened to one of the cross-ties. This spring is held in position by suitable guards, is long enough for the longest cars that are made, and is operated by the flange of the wheels bearing down upon it. Placed in suitable boxes or other bearings upon the top of the cross-ties is the partially-revolving shaft *c*, which is made about the same length as the spring *b*. Fastened to this shaft are a number of hooks, *d*, which can be adjusted back and forth, and which have their ends projecting up from under the rail, so as to bear against the under side of the spring. When the spring is forced downward, these hooks act as levers to turn the shaft *c* partially around. Secured to this shaft, on each side of the center, are the two weights, *e*, which may either consist of the heavy castings here shown, or of rods on which adjustable weights may be placed, so as to proportion the weight to the gate. Pivoted to these weights or rods are the connecting-rods *g*, which have their upper ends connected to a double-cranked shaft, *h*, which is journaled in the vertical timbers *j*. Projecting downward from this shaft *h* is an arm *i*, which is connected to the top of the gate *k* by means of a chain or flexible connection, *l*, and which arm acts as a lever to draw the gate back and forth. The gate will be made of any light wood-work, and is supported upon the four props *o*, the said props being pivoted at their lower ends to the timbers *j*, and at their upper ends to the corner and center of the top of the gate. As soon as the flange of the wheel bears down either end of the spring *b*, the downward pressure upon the hooks *d* causes the shaft *c* to turn and thereby raise the weights *e* upward. The weights, in raising, cause the connecting-rods *g* to partially turn the crank-shaft *h*, which shaft, by means of the arm *i*, draws the gate backward over its center, when the gate sinks the balance of the way by its own weight. As soon as the springs are released the weights fall and force the gate back into position again over the track. In practice the weights will have one of the hooks *d* formed on their inner ends, instead of being made separate, as here shown.

Having thus described my invention, I claim—

The combination of the spring *b*, hooks *d*, shaft *c*, weight *e*, connecting-rod *g*, cranked shaft *h*, arm *i*, gate *k*, props *o*, and frame *j*, substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of June, 1876.

DANIEL K. MABIE.

Witnesses:

ROBT. M. BAER,

F. A. LEHMANN.