E. Woodbury,

Railway Gate.

No. 108,670. Patented Oct. 25. 1870

Fig. 1.

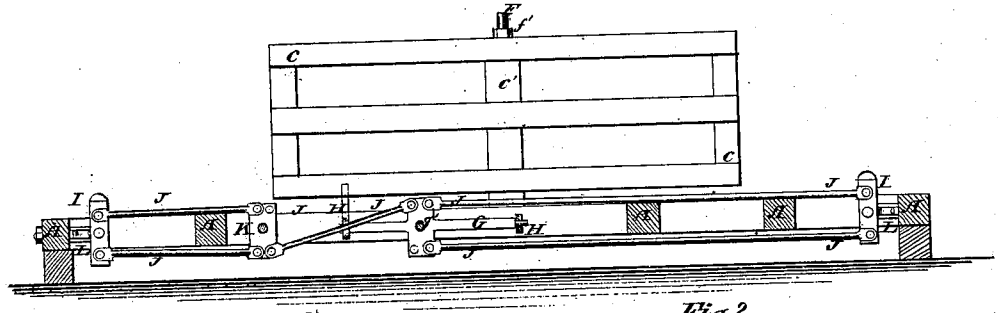


Fig. 2.

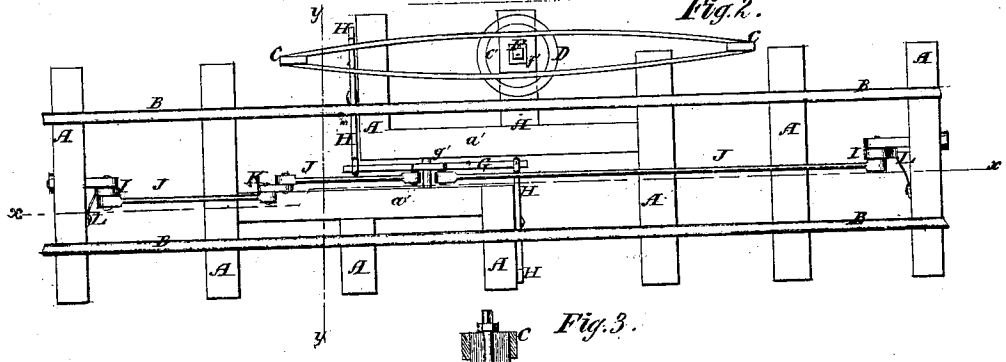
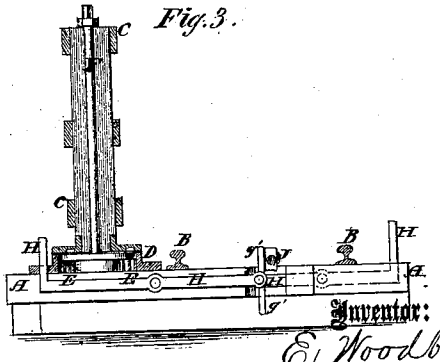


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWIN WOODBURY, OF SHARON, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY-GATES.

Specification forming part of Letters Patent No. **108,670**, dated October 25, 1870.

To all whom it may concern:

Be it known that I, EDWIN WOODBURY, of Sharon, in the county of Mercer and State of Pennsylvania, have invented a new and useful Improvement in Railway-Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a vertical longitudinal section, taken through the line *x x*, Fig. 2, of a railway-track to which my improved gate is applied. Fig. 2 is top or plan view of the same. Fig. 3 is a detail vertical cross-section of the same, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved railway-gate, simple in construction and effective in operation, opening and closing automatically upon the passage of the train; and it consists in the construction and combination of the various parts of the apparatus, as hereinafter more fully described.

A represents the ties, and B the rails, of a railroad-track.

C is the gate, which is attached to the central post, *c'*, the lower end of which revolves in a step, D, attached to some suitable support at the side of the track A B.

E is a spring placed in a recess in the step D, and connected with said step and with the post *c'* of the gate C, or with a shaft, F, passing up through said post, and connected with it by a nut, *f'*, so that the said spring may be wound up by turning the gate backward, or by loosening the nut *f'* and turning the shaft F' with a key. The gate C should be made so long that either end will extend across the track A B and close the roadway. By this construction the gateway will be opened and closed twice at each revolution of the gate. A portion of the middle parts of two or more of the ties A are cut away, as shown in Fig. 1, to give space for the operating-levers. The inner ends of the cut ties, upon each side of the cut, are connected with each other, and with the uncut ties by bars *a'*, as shown in Fig. 2, to hold the said cut ties securely in their places.

To one or the other of the bars *a'* is pivoted at its central part a lever, G, having arms *g'* projecting upwardly and downwardly from its middle part. The ends of the lever G have pivots formed upon them, which enter holes in the ends of the bent levers H, which are pivoted at or near the central point of their longer or horizontal arms to the ties A. The outer ends or arms of the levers H project upward for a sufficient distance to enable them to receive the gate C, and stop and hold it either open or closed. The two levers H are connected with the opposite ends of the lever G, so that when one of said levers is lowered to release the gate the other will always be raised by the same movement to receive and stop the gate at the proper position.

I are bumpers or blocks, which are pivoted to substantial supports at such a distance from the gateway that, when struck by the passing train to operate the gate, the movement of the gate may not be interfered with by the train in whatever direction it may be moving. To the bumpers I, at equal distances above and below the pivoting-point of said blocks, are pivoted the outer ends of two rods, J, the other ends of which are connected with the cross-arms *g'* of the lever G at equal distances above and below its pivoting-point. The two rods J upon one side of the lever G should be crossed, so that the train in moving in either direction toward the gateway will open the gate, and in moving in either direction from the gateway will close the gate.

For convenience in preventing the cross-rods J from being interfered with by the ties, the crossed rods J may be made in two parts, the adjacent ends of said parts being pivoted to the ends of an extra lever, K, interposed between them and pivoted to some suitable support. The parts of the rods J upon one side of the lever K may thus be made parallel, and the parts of said rods upon the other side of said lever may be crossed, as shown in Fig. 2. The two rods J may be replaced by a single rod, provided it be made sufficiently strong and rigid to operate the levers G H by pushing as well as by pulling. The blocks or bumpers I are brought back into a vertical position when released from the passing train by the spring L, connected with and bearing against the said blocks or bumpers.

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

The combination of the centrally-pivoted gate, C c', coiled spring E, bent stop-levers H, lever G g', rods J, whether arranged in pairs or singly, and pivoted blocks or bumpers I with each other, substantially as herein shown and described, to adapt them for use on a railway-track, as and for the purpose set forth.

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Witnesses:
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