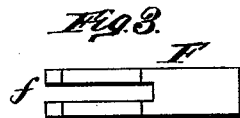
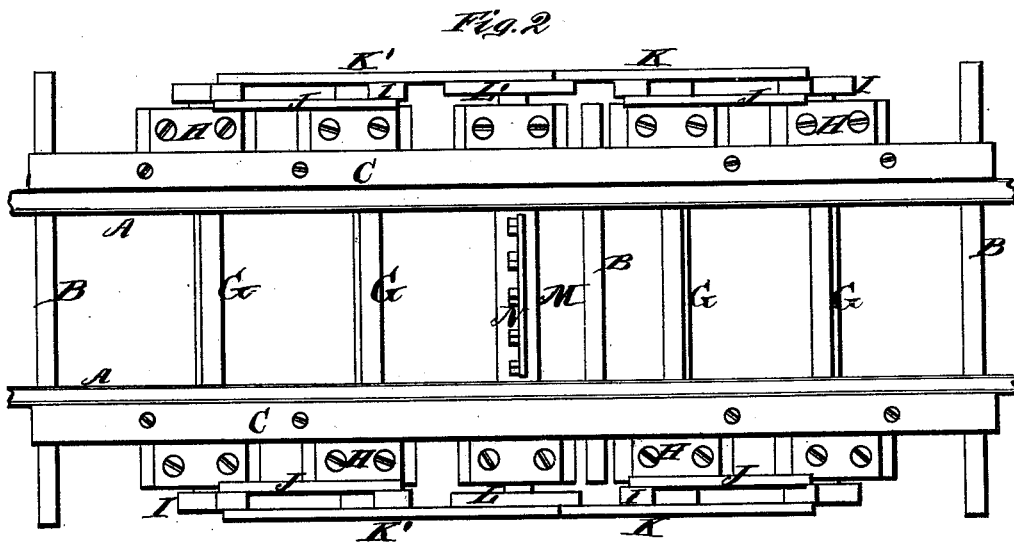
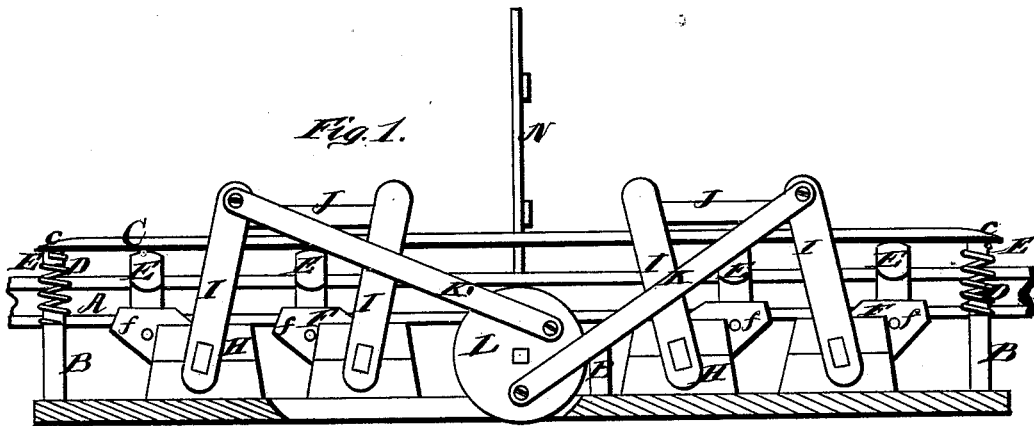


S. P. BOSTON.
RAILROAD GATE.

No. 188,574.

Patented March 20, 1877.



WITNESSES
Robert Swatt
George E. Upham

INVENTOR,
Simon P. Boston.
Gilmore, Smith & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

SIMON P. BOSTON, OF BLOOMSBURG, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-GATES.

Specification forming part of Letters Patent No. 188,574, dated March 20, 1877; application filed February 10, 1877.

To all whom it may concern:

Be it known that I, SIMON P. BOSTON, of Bloomsburg, in the county of Columbia and State of Pennsylvania, have invented a new and valuable Improvement in Railroad-Gates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view, part sectional, of my railroad-gate; and Fig. 2 is a plan view thereof. Fig. 3 is a detail view of the same.

This invention relates to railroad-gates used for preventing stock from passing up and down the track; and it consists in the construction, combination, and arrangement of the parts hereinafter set forth and claimed.

In the accompanying drawings, A designates the rails of an ordinary railroad-track, and B designates the cross-ties thereof. C designates two long bars, which are arranged just outside of said rails A, and a little above the same, said bars being supported by helical springs D, that rest on said cross-ties B. Each end of said bars C is beveled on top at *c*, as shown in Fig. 1.

To the under sides of said bars are secured blocks or short standards E, two of said blocks or standards being arranged near each end of each bar C. The lower end of each block or standard E is pivoted to the cleft outer end *f* of a horizontal crank-arm, F, Fig. 3, formed upon or attached rigidly to a rock-shaft, G, extending across the railroad-track. These rock-shafts are four in number, two of them being arranged near each end of the apparatus, and they are journaled in bearings H on each side of the railroad-track. The outer ends of said shafts G are provided with vertical crank-arms I, and each pair of said crank-arms I, at each corner of the apparatus, is provided with a cross-bar, J, connecting their upper ends, so as to make them move together. The upper end of the outer crank-arm of the pair of arms I, at one corner of the apparatus, is connected by means of an oblique link-bar or connecting-rod, K, to the face of a disk, L, below the center

thereof. The outer crank-arm I of the other pair, on the same side of said track, is similarly connected, by bar or rod K', to disk or wheel L at a point above the center thereof. The corresponding pairs of said arms I on the opposite side of said track are correspondingly connected to another disk, L', similar to L. These disks L and L' are on a rock shaft, M, which carries a gate, N. When said shaft M is turned in one direction said gate N lies flat upon the track, offering no obstruction to trains passing over the latter. When said shaft is turned in the other direction said gate is raised into a vertical position, as shown in the drawings, so as to prevent the passage of live stock.

The operation of the above-described devices is as follows: On the approach of a train from either direction the flanges of the locomotive-wheels and car-wheels strike against the inclines *c c* at the nearer ends of bars C, and ride upon said bars, depressing the same. The said bars C, by means of standards E, then transmit this downward pressure to crank-arm F, rocking the shafts G and crank-arms I, so as to draw link-bars or connecting-rods K K' in opposite directions, thereby rocking the shaft M, so as to fold down the said gate N upon the track ahead of the locomotive. The said gate is kept thus folded down until the train has entirely passed, by reason of the pressure of the flanges of the successive wheels upon said bars C, the springs D being compressed thereby. As soon as the train has passed, the said springs raise bars C, reversing the above-described action of the various parts of the apparatus, and replacing gate N in a vertical position, so as to prevent the passage of live stock. Said gate is held upright by said springs until depressed by the action of the wheel-flanges, as described.

The springs D may be of rubber instead of metal, or may be of metal having a different form from that shown. A single shaft, G, may be used at each end of the apparatus, instead of the two such shafts shown at each end thereof, one-half of the crank-arms F and I and all the cross-bars J being discarded. The arrangement above described and shown is, however, stronger than this modification would be.

By making some slight changes in the arrangement and construction of the various parts of this apparatus, the same may be used for turning a gate sidewise instead of lowering and raising it. It may also be applied to ordinary farm use as well as to railroads.

What I claim as new, and desire to secure by Letters Patent, is—

The slotted crank-arms F, provided with standards E, pivoted at their lower ends thereto, and attached at their upper ends to

the bars C, having springs D, in combination with the rock-shafts G M, connecting-rods J I K K', and disks L L', substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SIMON P. BOSTON.

Witnesses:

F. COOLEY,

C. B. BROCKWAY.