(No Model.) 2 Sheets—Sheet 1.

E. L. CROCKER.

RAILROAD GATE.

No. 457,043. Patented Aug. 4, 1891.

Fig. 1.

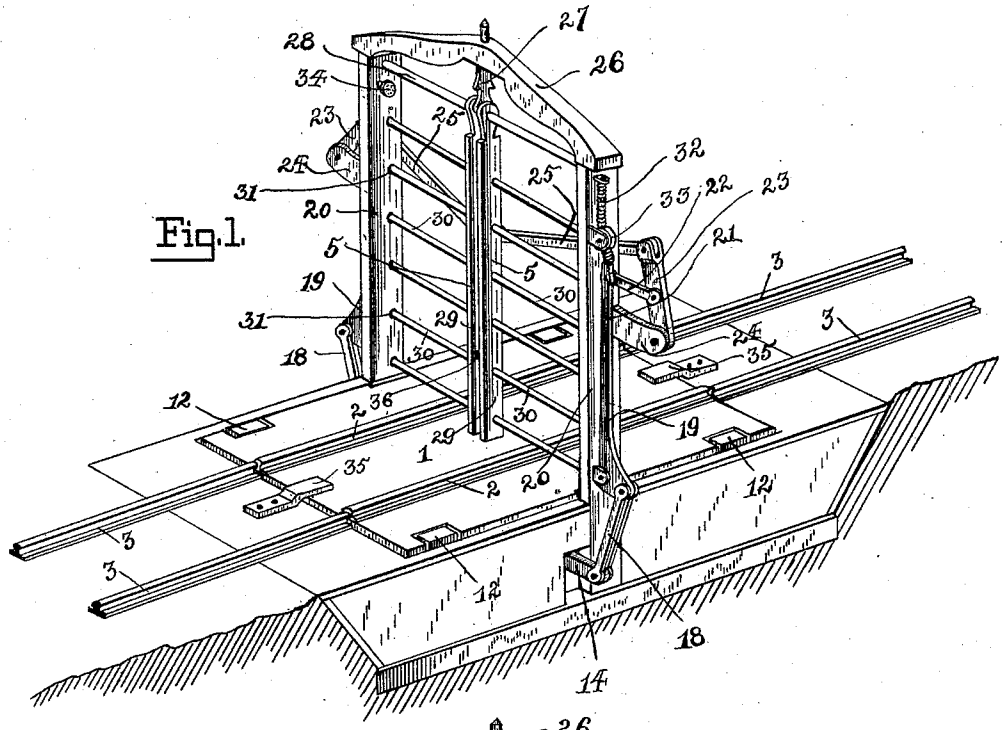
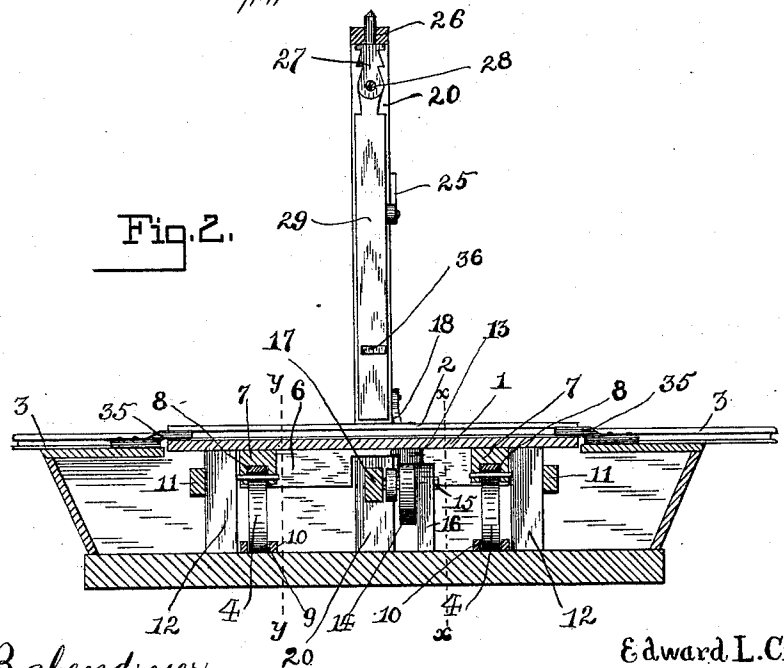


Fig. 2.



Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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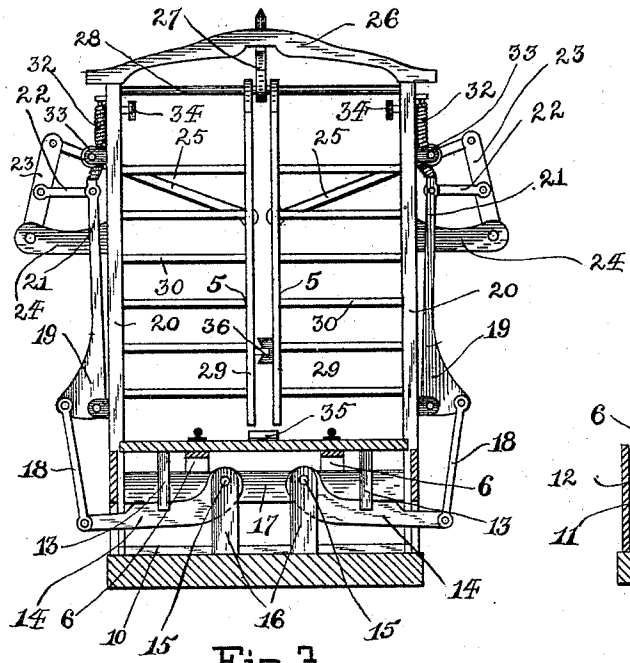


Fig. 3.

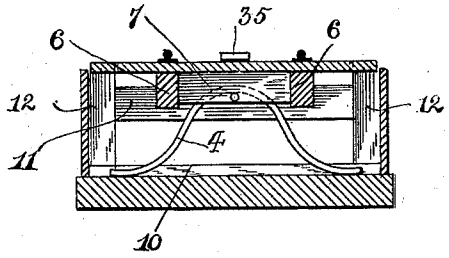
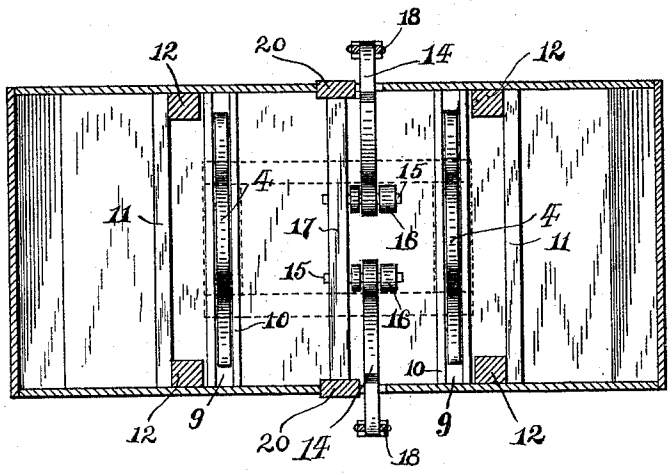


Fig. 4.

Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD LINCOLN CROCKER, OF ORLINDA, TENNESSEE.

RAILROAD-GATE.

SPECIFICATION forming part of Letters Patent No. 457,043, dated August 4, 1891.

Application filed April 30, 1891. Serial No. 391,115. (No model.)

To all whom it may concern:

Be it known that I, EDWARD LINCOLN CROCKER, a citizen of the United States, residing at Orlinda, in the county of Robertson and State of Tennessee, have invented a new and useful Railroad-Gate, of which the following is a specification.

The invention relates to improvements in railroad-gates.

The object of the present invention is to simplify and improve the construction of railroad-gates and to enable the same to be readily opened by the weight of a train and to be quickly closed after a train has passed.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a railroad-gate constructed in accordance with this invention, the gates being closed. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a vertical transverse sectional view on line *x x* of Fig. 2. Fig. 4 is a similar view on line *y y* of Fig. 2. Fig. 5 is a plan view, the platform being removed.

Referring to the accompanying drawings, 1 designates a rectangular platform having rails 2 secured to its upper face and forming a section of a track and supported slightly above the adjacent rails 3 by springs 4 and adapted to be depressed by the weight of a train to open sliding gates 5. The platform 1 has secured to its face a rectangular frame consisting of side bars 6 and end bars 7, having their ends secured to the ends of the bars 6 and provided intermediate their ends with recesses 8, in which the springs 4 are centrally secured, and the springs 4 are bowed or V-shaped and have their ends secured in recesses 9 of cross-pieces 10, arranged beneath the platform. The springs 4 are adapted to hold the platform slightly above the adjacent rails 3, and they should be of considerable strength, and the platform 1 is prevented being depressed below the adjacent rails by sills 11, secured to posts 12, having their upper ends arranged in recesses of the platform. Depending from the platform are presser-feet 13, which are arranged to engage levers 14, having their inner ends curved upward and fulcrumed on pivots 15, extending from posts 16 to a bottom cross-piece 17 of the gate-frame, and the outer ends of the levers 14 are connected by rods 18 with bell-crank levers 19, fulcrumed at their angles to posts 20 of the gate-frame and each having an arm 21 extending upward along the posts 20, and the upper end of the arm 21 is connected by a rod 22 with a shifting-lever 23, which has its lower end fulcrumed on an arm 24 of the adjacent posts 20 and its upper end connected by a rod 25 with the adjacent gate, whereby when the platform is depressed the bell-crank lever will be pulled upon and will throw the shifting-lever 23 outward and open the gate.

The gate-frame consists of the vertical posts 20, the bottom cross-piece 17, and a top cross-piece 26, secured to the upper ends of the posts, slightly bowed, and having centrally secured to it a depending hanger 27, which centrally supports a guide-rod 28, arranged at the top of the gate-frame and having the gates sliding on it. Each gate extends half-way across the track, and the distance traveled by them in sliding is only one-half the width of the track, thereby necessitating only a comparatively short platform to open them in time to permit the passage of a train, and the gates consist of vertical end bars 29 and horizontal rods 30, secured to the end bars and arranged in openings 31 of the posts of the gate-frame and adapted to slide freely in opening and closing. After a train has passed, the gates are immediately closed by springs 32, which are preferably spiral and have their upper ends secured to the posts 20 and their lower ends attached to the bell-crank levers and arranged intermediate their ends on pulleys 33. The posts are provided near their upper ends with buffers 34, which are constructed of rubber or other suitable material and serve as cushions and prevent shocks in opening the gates. The platform is prevented from rising too high by cleats 35, arranged to engage the ends of the platform, and it is designed to have the rails of the platform but a slight distance above the adjacent rails, so that there will be but small shocks to a train passing over the platform.

It will be seen that the railroad-gate is sim-

ple and comparatively inexpensive in construction and is adapted to be readily opened by an approaching train, and that it will quickly close after a train has passed. The end bars of the gates are provided near their lower ends with recessed blocks 36, which are vertically and horizontally disposed and adapted to interlock and prevent the gates being forced apart. When it is desired to open the gates and there is not sufficient weight on the platform, the gates can be readily pushed back by hand.

What I claim is—

1. In a railroad-gate, the combination of the platform, the springs supporting the platform, the gate-frame, the gate sliding in the frame, the bell-crank levers fulcrumed on the gate-frame and having their upper ends connected with the gates, and the levers 14, arranged beneath the platform and adapted to be depressed by the same and connected with the lower ends of the bell-crank levers, substantially as described.

2. In a railroad-gate, the combination of the platform provided with presser-feet 13, the springs supporting the platform, the gate-frame, the sliding gates, the bell-crank levers fulcrumed on the gate-frame and extending along the same, the levers 14, arranged beneath the platform and adapted to be engaged by the presser-feet 13 and connected to the lower ends of the bell-crank levers, and the shifting-levers having their lower ends fulcrumed on the gate-frame and their upper ends connected with the gates and connected intermediate their ends with the bell-crank levers, substantially as described.

3. In a railroad-gate, the combination of the platform, the bowed springs centrally secured to the platform and supporting the same, the cross-pieces 10, provided with recesses to receive the ends of the springs, the cleats 35, engaging the ends of the platform, the gate-frame, the sliding gates, and the levers 14, arranged beneath the platform and adapted to be depressed by the same and connected with the sliding gates, substantially as described.

4. In a railroad-gate, the combination of the platform, the gate-frame comprising the posts provided with openings, the top piece connecting the upper ends of the posts and provided with a depending hanger, the guide-rod supported by the hanger and having its ends secured to the posts, the gates consisting of the end bars having their upper ends arranged on the guide-rod and the horizontal rods secured to the end bars and arranged in the openings of the posts, and the levers 14, arranged beneath the platform and adapted to be depressed by the same and connected with the sliding gates, substantially as described.

5. In a railroad-gate, the combination of the gate-frame, the sliding gates, the arms extending from the gate-frame, the bell-crank levers fulcrumed on the gate-frame, and the shifting-levers having their lower ends fulcrumed on the arms and their upper ends connected to the gates and connected intermediate their ends with the bell-crank levers, substantially as described.

6. In a railroad-gate, the combination of the gate-frame, the sliding gate, the laterally-extending arms projecting from the gate-frame, the bell-crank levers fulcrumed on the gate-frame, the shifting-levers fulcrumed on the arms and connected with the bell-crank levers and with the gates, and the springs secured to the gate-frame and to the bell-crank levers, substantially as described.

7. In a railroad-gate, the combination of the frame, the sliding gate, the arms extending laterally from the frame, the shifting-levers fulcrumed on the arm and connected with the gates and with the bell-crank levers, the pulleys 33, arranged on the frame, and the springs passing over the pulleys and having their upper ends secured to the frame and their lower ends attached to bell-crank levers, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EDWARD LINCOLN CROCKER.

Witnesses:

L. C. CROCKER,

W. J. CROCKER.