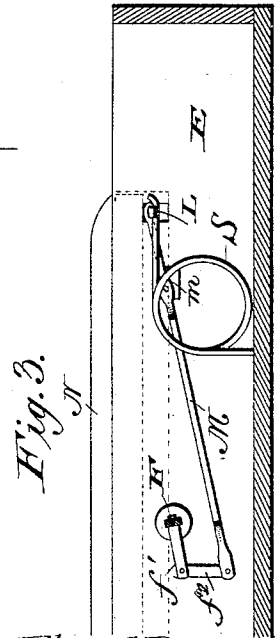
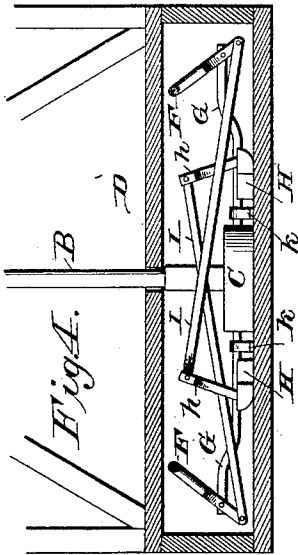
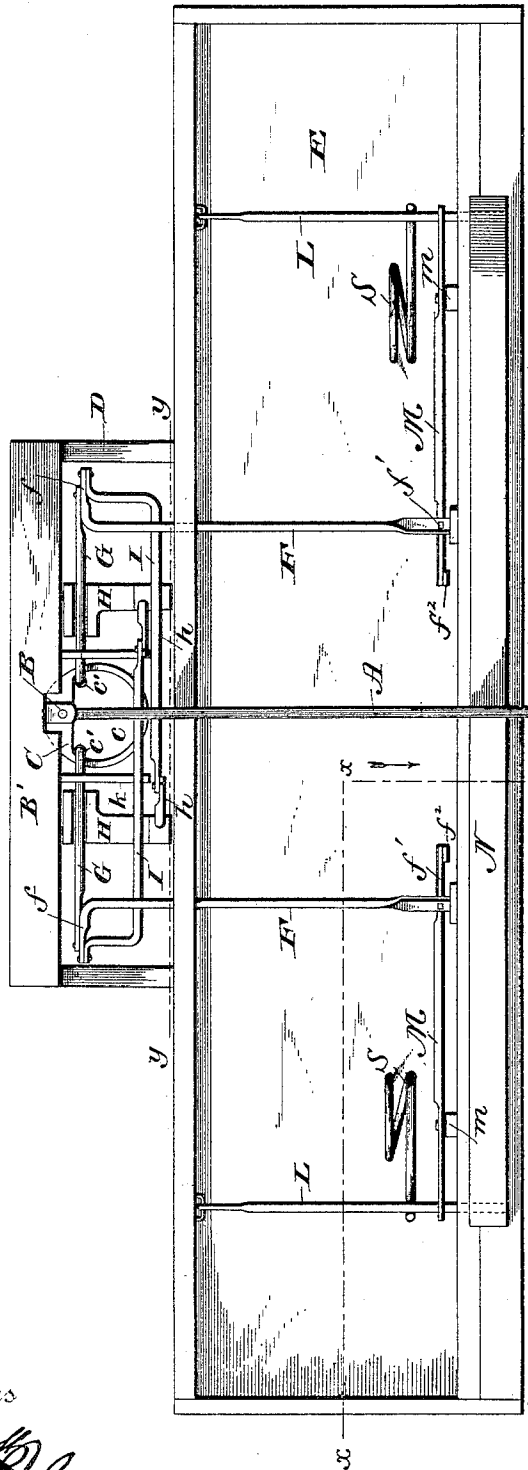


W. A. ROBERTS & J. L. MCGEE.
GATE.

No. 453,506.

Patented June 2, 1891.

Fig. 1.



Witnesses
L. S. Elliott
A. M. Johnson

William A. Roberts.
 James L. McGee.
 Inventor

by *Wm. A. Roberts*
 Attorney

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Fig. 2.

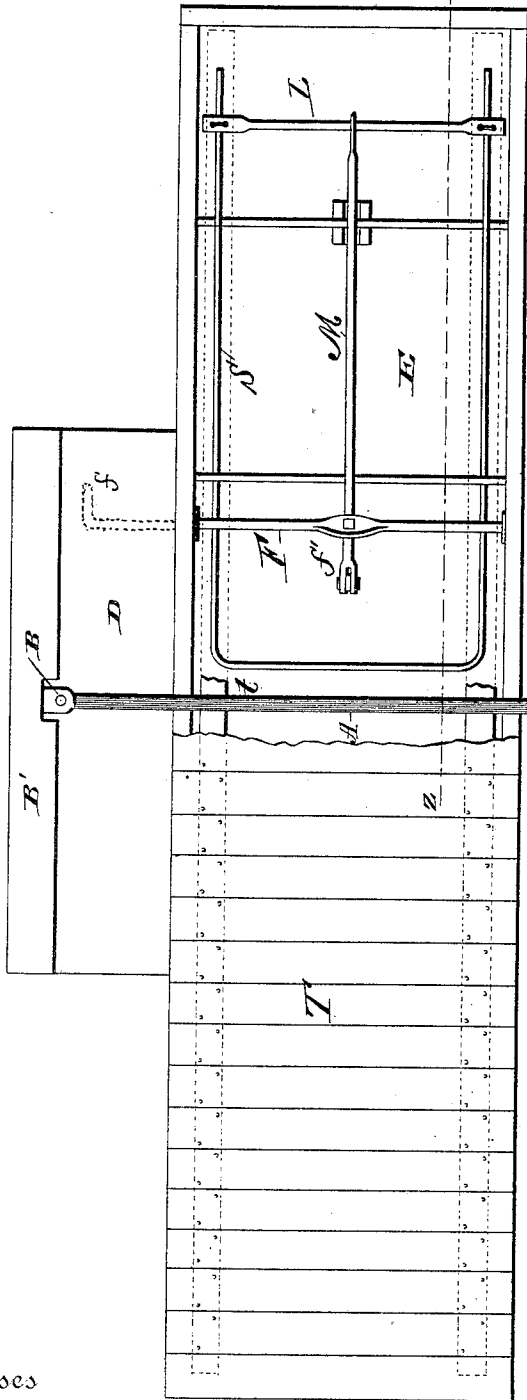
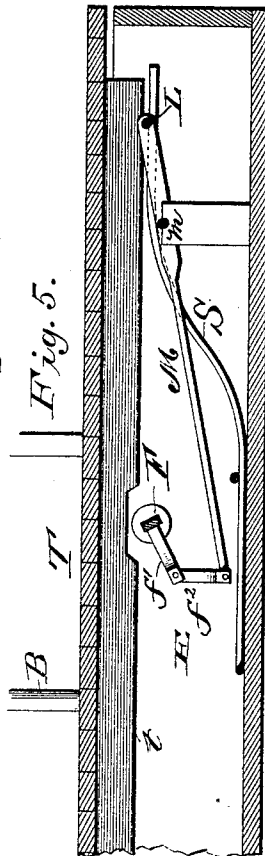


Fig. 5.



William A. Roberts.
and
James L. McGee.

Inventor

by

[Handwritten signature]

Attorney

Witnesses

[Handwritten signatures of witnesses]

UNITED STATES PATENT OFFICE.

WILLIAM ASBARY ROBERTS AND JAMES L. MCGEE, OF ASH FLAT, ARKANSAS.

GATE.

SPECIFICATION forming part of Letters Patent No. 453,506, dated June 2, 1891.

Application filed January 22, 1891. Serial No. 378,683. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM ASBARY ROBERTS and JAMES L. MCGEE, citizens of the United States of America, residing at Ash Flat, in the county of Sharp and State of Arkansas, have invented certain new and useful Improvements in Gates; and we 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in swinging gates.

The object of the invention is to provide a pivoted gate with means whereby when a vehicle approaches the gate a bar or platform will be depressed to open the gate and hold the same open until said vehicle leaves the platform; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view, with the platform or covering removed and showing the parts arranged for a railroad-gate. Fig. 2 is a similar view showing the parts slightly modified to provide an ordinary road-gate. Fig. 3 is a sectional view on line $x x$, Fig. 1. Fig. 4 is a longitudinal sectional view on line $y y$, Fig. 1. Fig. 5 is a sectional view on the line $z z$ of Fig. 2.

A refers to the gate, which is rigidly secured to a vertical post B, said post being supported at its upper end by a frame B' and at its lower end rigidly connected to a cam C. This cam is of peculiar construction, having an enlarged semicircular depression c at the corners of which are perforations c' .

E refers to a frame-work, which is sunk below the level of the roadway, the gate A swinging above the same, and adjacent to said frame-work a smaller structure or box D is provided, which contains a part of the gate-operating mechanism.

F F refer to rock-shafts pivoted in the box E on each side of the gate, an end of each of

which extends into the box D, and is bent downward, as shown. To these rock-shafts are secured short arms f' , which extend in opposite directions from the bent ends f . To the bent end of each of the rock-shafts F is pivotally secured one end of a rod G, the opposite end of which is bent to engage one of the recesses c' in the cam C, an intermediate portion of said rod lying in a groove formed in the block H, pivoted as shown. The gate-post and cam C are rigidly connected to each other, the post turning in pivots, and when opened the gate and cam turn through an arc of ninety degrees, or thereabout. When one end of the track or platform is depressed, one of the rods G, having a bent end which engages with the perforation c' in the cam, will be elevated by the rocking of the block H, and will ride on the raised portion of said cam, while the opposite similarly-constructed bar, being in engagement with the opposite perforation c' , will turn the cam, gate-post, and gate so as to open said gate. This block is operated or rocked upon its pivots by means of an arm h , which is connected to the rock-shaft F by a rod I. Flat springs k bear upon the inner ends of the rods G to hold the bent end thereof within the depressed portion of the cam C. Within the casing E are pivoted depression-bars L, to which are secured levers M, fulcrumed at m , and attached at their opposite ends to the rock-shafts F through the medium of the arm f' and link f^2 . The depression-bars are held normally elevated by suitable springs S.

When the vehicle passes upon the rail or platform N, the lever M will be operated to turn the rock-shafts to which the arms G are connected, and these arms open the gate by a pushing movement. One of said arms is released from the perforation c' in the cam C by being elevated by the block H, which is rocked by the rod I to elevate the same. Said rod is connected to the rock-shaft F at a different point from the arm G, so as to act quicker and release the opposite arm G before the pushing movement is imparted to the cam which operates the gate. It will be obvious that after the gate has been opened by a vehicle entering upon the platform and operating one of the rock-shafts, the opposite

arm being out of engagement with the cam will not act thereon. After the platform has been freed of weight the spring will act to restore the gate to its closed position.

5 In Fig. 1 of the drawings we have shown our invention applied to a railway-gate, in which instance a rail N is provided which moves vertically in suitable guides adjacent to the track, said rail operating the depression-bars, 10 and when a train moves over the track the rail N will be depressed and with it force downwardly the short end of the lever M, which movement, rocking the shaft F, will operate the cam C, through the medium of the 15 rod G, to open the gate in the direction the train is moving, and said gate will remain open as long as the rail N is depressed.

In Fig. 2 of the drawings a platform T' is shown having longitudinal rails *t t*, which 20 rest upon the ends of the depression-bars, so that when a wagon or other vehicle is driven upon the vertically-movable platform T' the depression-bars E will be depressed and the gate opened.

25 When one of the shafts F is rocked by means of its connection with either the rail or platform, the rod G, connected thereto, will throw the cam around upon its pivot to open the gate, the opposite rod G upon the other 30 rock-shaft being disengaged from its perforation *c'* by means of the block H, which is operated by the rod I, connected to the rock-shaft first mentioned. As soon as the weight is removed from the platform or rail the 35 spring S acts upon the lever M to restore the parts to their original position.

The springs S, through the medium of the levers M, rock-shafts F, and rods G normally exert a drawing or pulling movement upon 40 the cam C to hold the gate closed.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

45 1. In a swinging gate, the combination of a platform or rails resting upon depression-bars, springs which normally elevate said bars, levers M, attached to said depression-bars, rock-levers connected to the opposite ends of the levers M, rods G, carried by said rock- 50 levers, a cam carried by the fence-post and engaged by the rods G, blocks over which the rods G pass, and rods I, connected thereto, substantially as set forth.

2. The combination, in a horizontally- 55 swinging gate, of a cam having recessed portions and perforations, rods G, which enter said perforations, rock-shafts connected to said rods, pivoted blocks H, carrying arms, and rods I, pivoted to said arms, said rods also being attached to the rock-shafts, together 60 with means for operating said rock-shafts, substantially as set forth.

3. The combination, with a swinging gate having a post provided at its lower end with a cam, of pivoted blocks H, with extended 65 grooved portions, rods G, having bent ends which engage perforations in the cam, and operating rock-shafts carrying said rods, together with means, substantially as shown, attached to the same rock-shafts for turning 70 the blocks upon their pivots to raise the rods G out of engagement with the cam, substantially as set forth.

4. The combination, in a swinging gate, of a vertical post B, provided with a cam C, hav- 75 ing a recessed portion, rods G, with bent ends which lie in perforations in the cam, pivoted blocks H, having grooves in which the rods G lie, rock-shafts F, and rods I, connected to the blocks H at one end and to the rock- 80 shafts F at the other, the rods G being attached to said rock-shafts above the point of attachment to the rods I, substantially as set forth.

5. The combination, with a gate, of a cam 85 C, having a depressed portion *c* and perforations *c'*, rods G, having bent ends which engage said perforations, blocks H, pivoted at right angles to the rods G, said blocks having extended portions, springs *k* for holding the 90 rods G normally in engagement with the cam and the grooved portions of the blocks, rods E, connected to the rock-shafts, and means for operating said rock-shafts to open the gate, together with springs S for returning said 95 means to a normal position, said springs also serving to return the gate to a closed position, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM ASBARY ROBERTS.
JAMES L. MCGEE.

Witnesses:

W. C. COOKSEY,
F. B. WILLIAMS.