

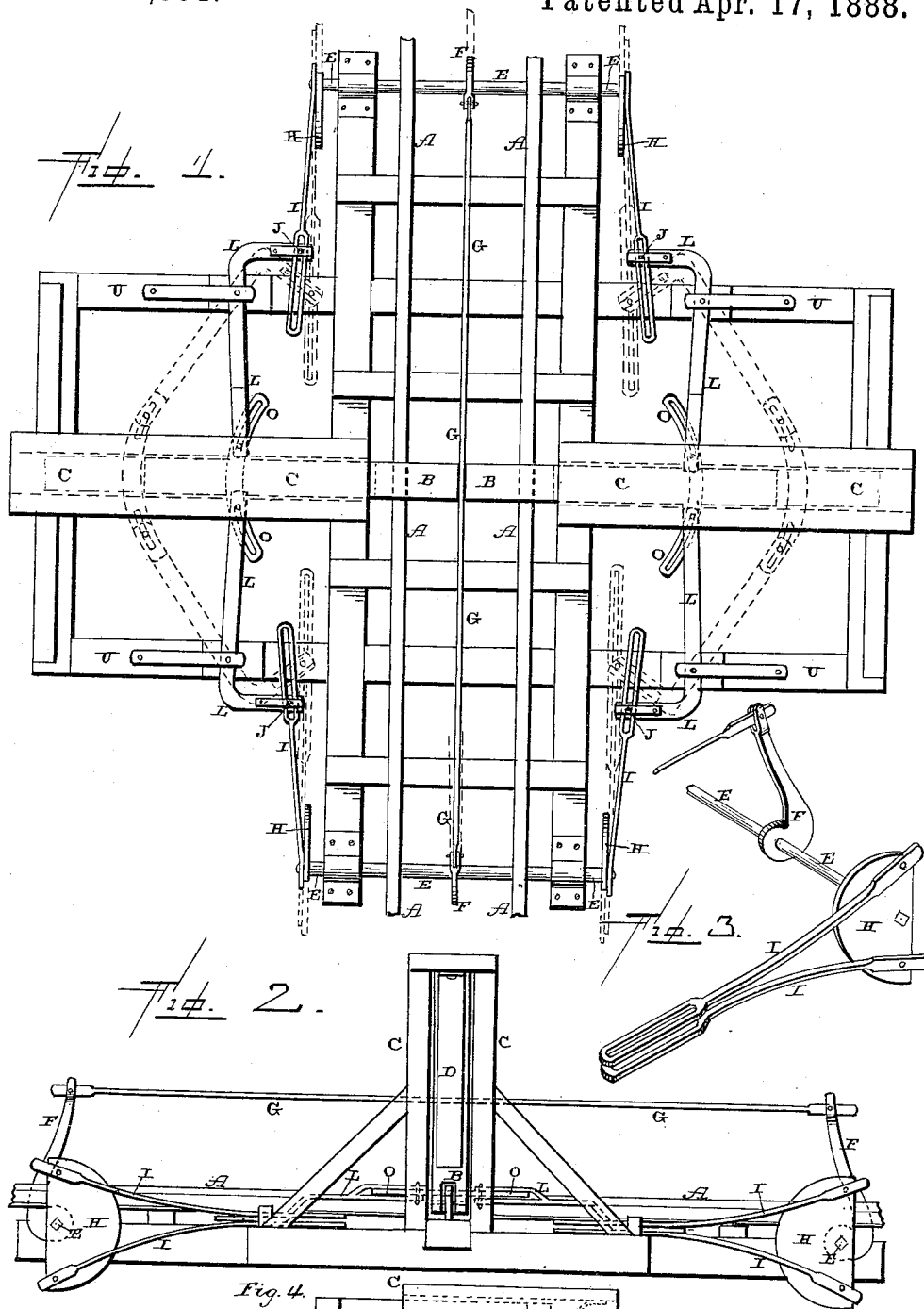
(No Model.)

A. H. JOHNSON & A. G. MAHAFFEY.

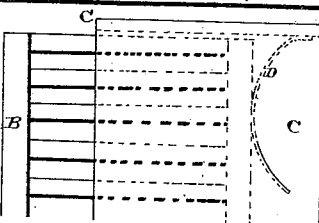
RAILROAD GATE.

No. 381,381.

Patented Apr. 17, 1888.



Witnesses.
T. F. Gardner
Edm. P. Ellis



Inventors.
A. H. Johnson
A. G. Mahaffey
per F. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

ANDREW HENRY JOHNSON AND ALBERT GALLATIN MAHAFFEY, OF TRYUS,
MISSISSIPPI.

RAILROAD-GATE.

SPECIFICATION forming part of Letters Patent No. 381,381, dated April 17, 1888.

Application filed January 23, 1888. Serial No. 261,582. (No model.)

To all whom it may concern:

Be it known that we, ANDREW HENRY JOHNSON and ALBERT GALLATIN MAHAFFEY, of Tryus, in the county of Lawrence and State of Mississippi, have invented certain new and useful Improvements in Railroad 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in railway-gates; and it consists in the combination of two gates which are closed from opposite sides of the track by means of springs after having been opened by the passing car, locomotive, or train, levers which rise above the center of the track and are connected together at their upper ends, so as always to move in the same direction, shafts to which the levers are connected, slotted levers connected to each end of the shafts, and levers which are operated by the slotted levers and which in turn force the gates backward, all of which will be more fully described hereinafter.

The object of our invention is to provide an automatically-acting railway-gate which will open in advance of a train or locomotive and remain open until the train has passed and then instantly close, thus dispensing with all necessity for a person to open and close the gates.

Figure 1 is a plan view of a gate which embodies our invention, the parts being shown in one position in solid lines and in another position in dotted lines. Fig. 2 is an end elevation. Fig. 3 is a detached view of one of the shafts, the slotted rods, and the levers. Fig. 4 is a detached side elevation of one of the gates alone.

A represents the railroad-track, and B the two gates, which meet midway across the track and which are placed in suitable guiding-frames, C, of any desired construction. The inner ends of these guiding-frames approach from opposite sides of the track, but not sufficiently near to interfere with passing trains or cars. The gates are placed upon rollers, so as to move with as little friction as possible, and

are returned to position, after having been opened, by the springs D, which bear against their rear edges, as shown. As soon as the gates are left free to move after the cars have passed through, these springs instantly close the gates across the top of the track.

Journaled in suitable bearings under the track, at suitable distances and on opposite sides of the gates, are the two shafts E, to the centers of which, midway between the tracks, are fastened the levers F, which extend upward a suitable distance and are connected together at their upper ends by the rod G, so as to move always in the same direction. This rod extends along above the center of the track and in between the two gates, as shown, and during the passage of a car, locomotive, or train serves, by the pressure of the passing train upon its top, to keep the two levers depressed, and thus hold the gates wide open until after the cars have passed safely through between them. The levers F will be placed at such a distance beyond the gates upon each side that the downward pressure of the passing train will be exerted so far in advance of the gate-opening and so long after the train has passed through that there will never be any danger of the gates closing prematurely, so as to strike against the sides of the cars. To each end of each of the shafts E are attached the plates H, which project a suitable distance beyond the shaft beyond opposite sides, and to which are loosely connected the slotted rods or levers I. These levers I are slotted at their inner ends and move in opposite directions, according to the direction from which the advancing train or locomotive is moving to open the gates. Passing through the slots of each pair of levers I is a pin, stud, or projection, J, which is secured to the shorter end of the bent lever L, which is pivoted upon a suitable support, U, provided therefor. The longer and inner end of each lever L is provided with a pin, stud, or projection which passes through a curved slotted arm, O, which is secured rigidly to or projects from opposite sides of the gates. When the lever L is moved, the pressure of the pin, stud, or projection upon the inner end of the lever L against the curved slot in the arm O forces the gate back-

ward, so as to allow the train to pass through. When the plate H is partially revolved by the movement of the shaft E, caused by a locomotive striking against one of the levers F, one of the slotted levers I is forced forward at the same time that the other lever I is drawn backward. As the lever I is forced forward, the end of its slot strikes against the pin, stud, or projection connected to the outer and shorter end of the bent lever F, and thus causes the lever L to turn upon its pivot, so as to force the gate backward.

There are two of the shafts E, and each shaft has two plates H secured to it, and each plate or lever has two slotted levers, I, connected thereto, and each pair of levers I operates upon a separate lever, L; hence each gate is acted upon from opposite sides at the same time, so as to prevent any possibility of the gates sticking or failing to operate as soon as one of the levers F and the connecting-rod G are depressed by a moving locomotive or car.

Having thus described our invention, we claim—

1. The combination of the two spring-actuated gates and suitable guiding-frames therefor, with shafts journaled upon opposite sides of the gates, levers projecting from the middle of the shafts and connected together at their

upper ends, plates connected to the ends of the shafts, slotted levers I, pivoted on said plates, and the pivoted levers L, operated at one end by the levers I and serving to open the gates through the slotted arms O at the other, substantially as shown.

2. The combination of the two gates moving from opposite sides of the track, springs for closing the gates after having been opened, and the inclosing-frames in which the gates move, with shafts E, provided with a plate, H, at each end, the two levers I, pivoted to opposite ends of each plate, so as to move in opposite directions, pivoted levers L, provided with studs or projections at each of their ends engaging levers I and slotted arms O, which project from the sides of the gate, the lever F, secured to the shafts E midway between the tracks, and the rod G, which connects the upper ends of the levers together and which passes in between the gates, substantially as set forth.

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

ANDREW HENRY JOHNSON.

ALBERT GALLATIN MAHAFFEY.

Witnesses:

E. F. HERING,

WILL C. CANNON.