

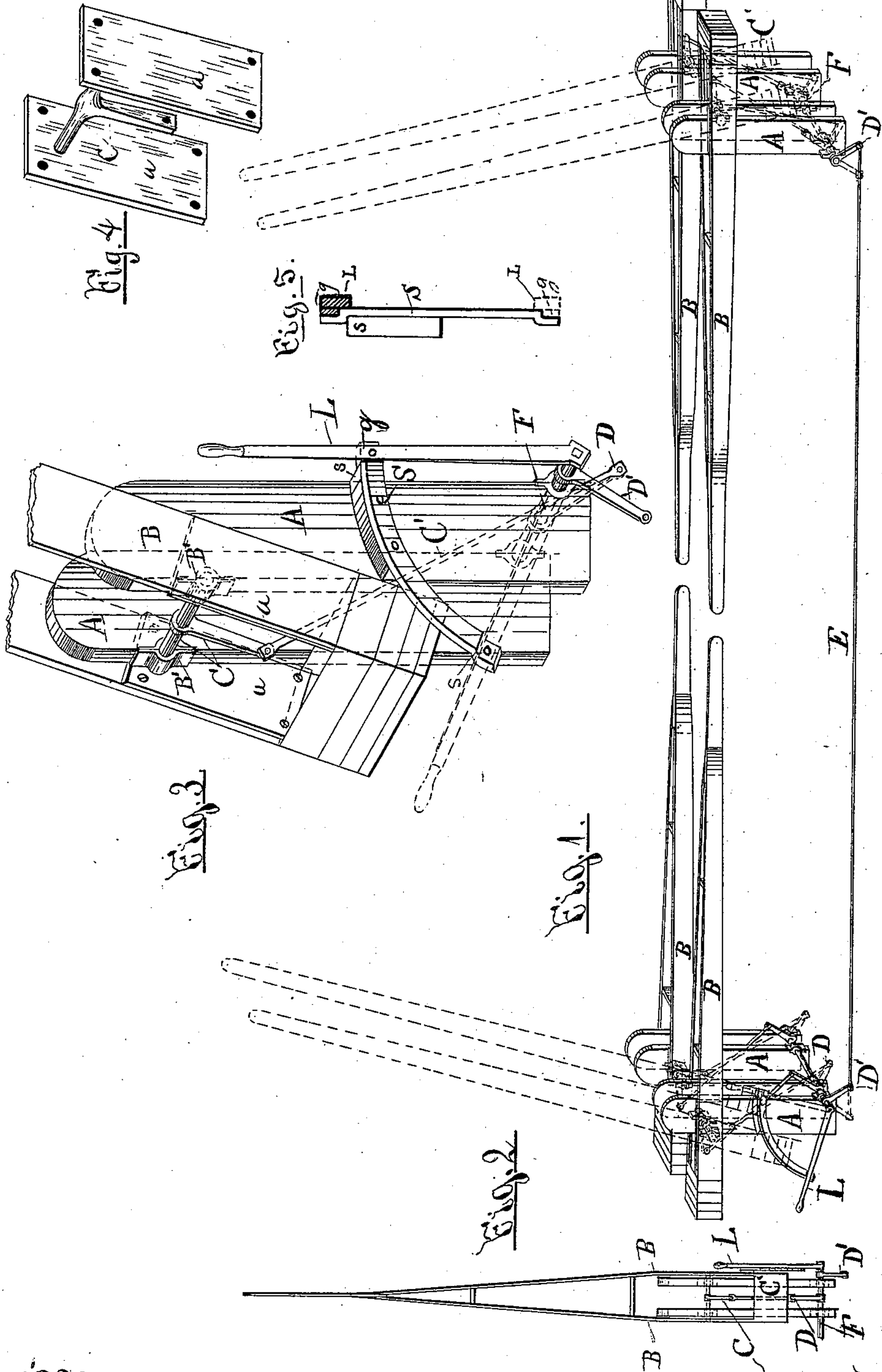
(No Model.)

T. H. FENNELL.

RAILWAY GATE.

No. 364,165.

Patented May 31, 1887.



Witnesses.

C. Bendixon

A. F. Walz.

Inventor.
Timothy H. Fennell
Per Duell, Laass & Hup
Attorneys.

UNITED STATES PATENT OFFICE.

TIMOTHY H. FENNELL, OF APULIA, ASSIGNOR OF ONE-HALF TO ADOLPH H. SCHWARZ, OF SYRACUSE, NEW YORK.

RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 364,165, dated May 31, 1887.

Application filed August 11, 1886. Serial No. 210,615. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY H. FENNELL, of Apulia, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Railway-Gates, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of railway-gates in which counterbalanced pivoted bars are swung across the roadway, temporarily inclosing the rails; and it consists in the combination, with the posts of a railway-gate, of counterbalanced bars connected to the said posts by an attachment composed of a crank-shaft and a crank and side plates, all formed in one piece, the side plates being secured to the counterbalanced bars and the shaft journaled in bearings secured to the posts, and a connecting-rod connecting the crank with a crank secured on a shaft journaled in the base of the posts, said shaft being provided with an operating hand-lever, all as more particularly hereinafter described.

It consists, furthermore, in the detailed construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims.

In specifying my invention reference is had to the accompanying drawings, in which like letters indicate corresponding parts in all the views.

Figure 1 is a perspective view showing the gates in position, the full lines showing the gates closed and the dotted lines showing them open. Fig. 2 is an end view. Fig. 3 is an enlarged detail showing the counterbalanced bars pivoted to the supports and the connecting-rod and hand-lever. Fig. 4 is a detached detail of the bar attachment; and Fig. 5 is a top plan view of the segment, showing the shifting-lever and its guide in cross section in position at one end of the segment, and in dotted lines at the other end of the segment.

A A are the supports, erected in the usual manner; B B, the counterbalanced bars, pivoted to the supports A A by an attachment consisting of the plates *a a*, carrying the crank and shaft C. The plates *a a* are bolted to the bars B B, as shown at Fig. 3, and the crank-shaft C is journaled in bearings B', secured to the supports A A. The crank and shaft C and

plates *a a* are cast in one piece, as best shown in Fig. 4, and form the bar attachment.

F is a lower crank-shaft journaled in bearings in the lower part of the supports A A. The hand-lever L is attached to the shaft F, and motion is transmitted from the lever L to the pivoted bars through the medium of the connecting-rod C'.

When my invention is applied to double gates, as in the example thereof illustrated in Fig. 1, the shaft F is extended across under the rails to the opposite gate, and the gates on the opposite side of the roadway are connected by a similar crank-shaft. Then the four gates are connected to the hand-lever L by the cross-tie or connecting-rod E, pivoted to the cranks D' D', secured on the shafts F F, Fig. 1.

The hand-lever L is provided with a stop-guide, *g*, which travels on the segment-gib S, secured to the support A, as shown in Fig. 3. When the gates are up, the stop-guide *g* of lever L rests against the shoulder *s* of the gib S, which holds the lever until the same is released to operate the gates. In this example of my invention, as has been stated, the invention is shown applied to double gates. I do not, however, limit myself to such use thereof, as it is obvious that it can be with equal utility applied to single gates.

The operation of my invention will be readily understood upon reference to the drawings. When it is desired to lower the gates, it is simply necessary to release the hand-lever and shift it over, as shown by the dotted lines in the enlarged view, Fig. 3. Simultaneously with the movement of the hand-lever motion is transmitted to the pivoted bars through the medium of the connecting-rods C' E, and the bars are caused to descend.

It will be observed that the gates are controlled by the movement of the hand-lever and the intermediate connections; hence no weights are necessary, and, since the power can be evenly applied through the medium of the lever, the descent can be controlled without the sudden fall and jerking incidental to gravity-gates.

The hand-lever L and gib S may be attached to a pivoted crank located in a depot or switch-house and connected to operating mechanism of the gate in the same manner that the opposite gates are connected, and all of the gates

operated directly from the depot or switch-house.

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

1. In a railway-gate, the combination of posts A A, counterbalanced bars B B, the crank and shaft C and plates *a a*, made in one piece, connecting-rod C', shaft F, and operating-lever L, substantially as specified.

2. The combination of the counterbalanced bars journaled on the outside of the uprights A A by the integral crank and connecting-plates C *a a*, and bearings B', the shaft F, and

crank D, connecting-rod C', hand-lever L, and segment-gib S, secured to one of the uprights A, all substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 7th day of August, 1886.

TIMOTHY H. FENNELL. [L. S.]

Witnesses:

FREDERICK H. GIBBS,
E. C. CANNON.