

(No Model.)

2 Sheets—Sheet 1.

G. F. OEHRL.
RAILROAD GATE.

No. 326,515.

Patented Sept. 15, 1885.

Fig. 1.

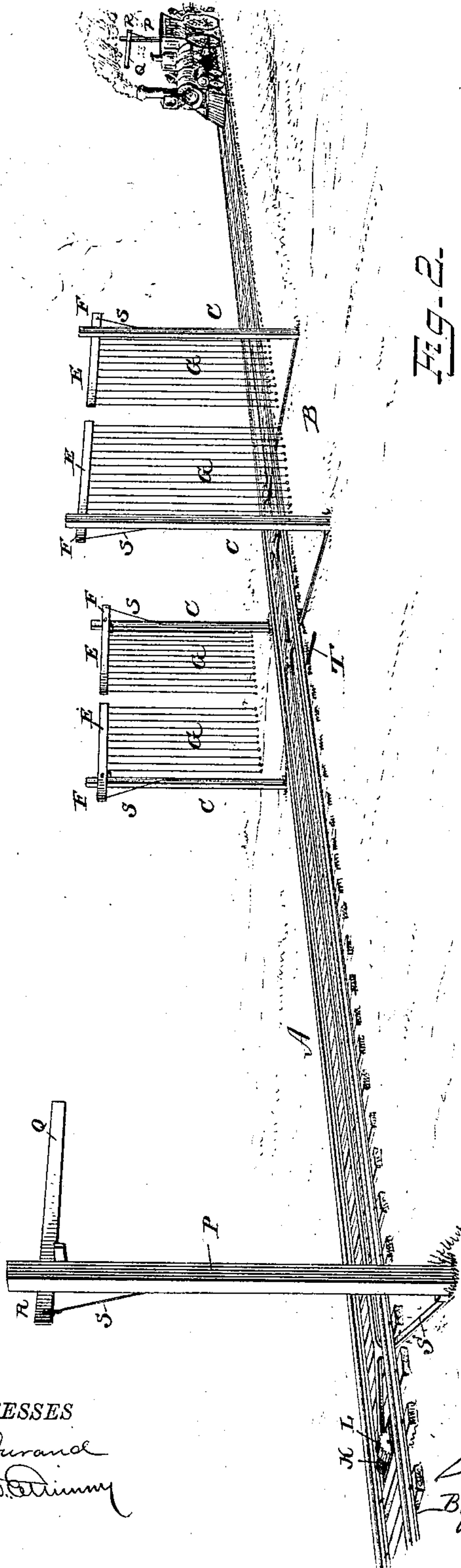
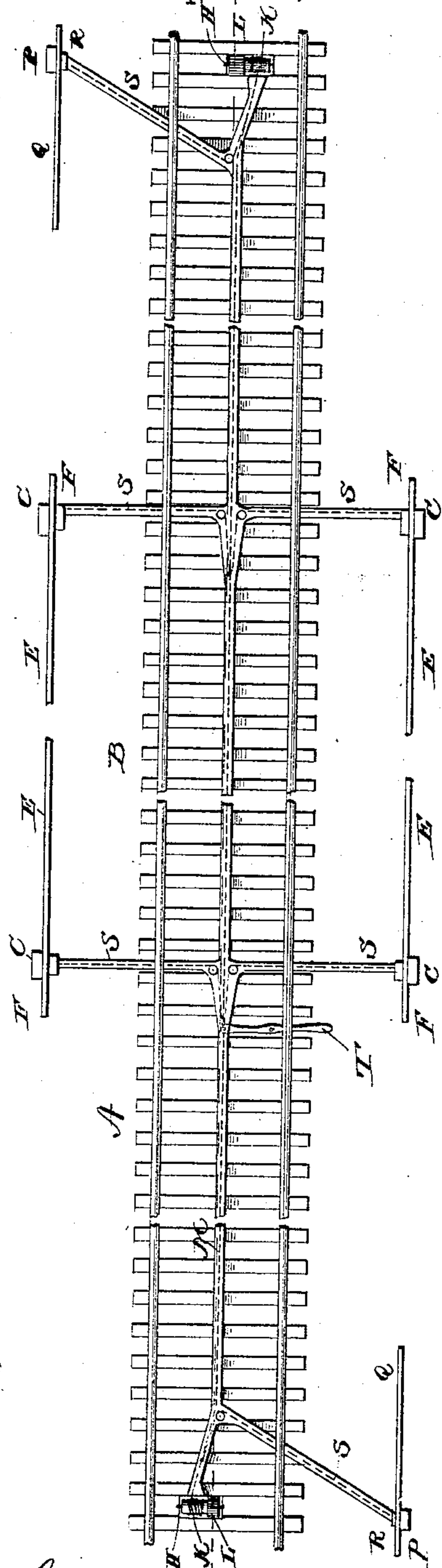


Fig. 2.



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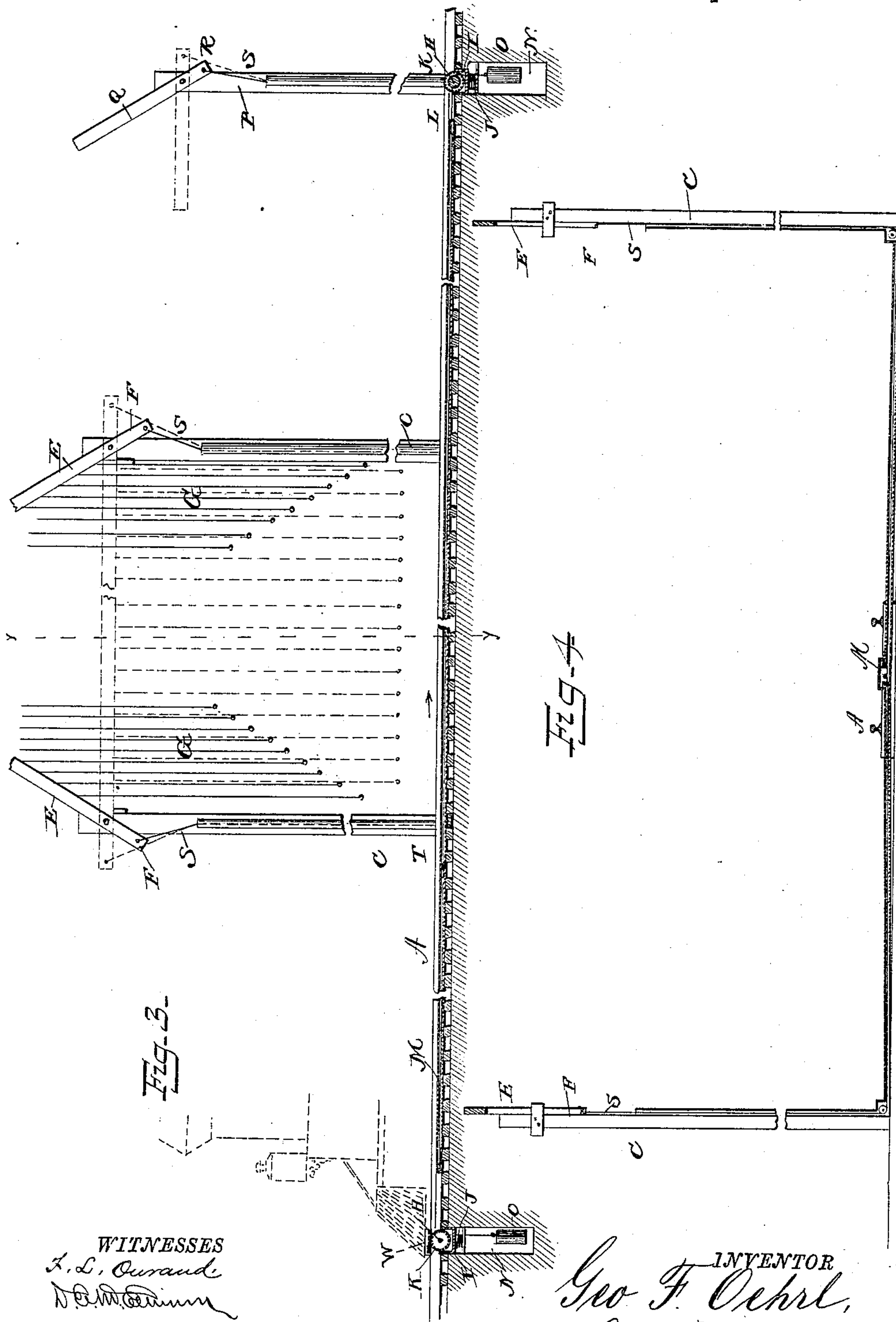
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UNITED STATES PATENT OFFICE.

GEORGE F. OEHRL, OF SPEERS, PENNSYLVANIA.

RAILROAD-GATE.

SPECIFICATION forming part of Letters Patent No. 326,515, dated September 15, 1885.

Application filed April 14, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. OEHRL, a citizen of the United States, and a resident of Speers, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a section of a railroad-track equipped with my improved gate. Fig. 2 is a top or plan view of the same. Fig. 3 is a longitudinal vertical sectional view taken on the line *xx* in Fig. 2. Fig. 4 is a vertical transverse sectional view taken on the line *yy* in Fig. 3.

The same letters refer to the same parts in all the figures.

This invention relates to gates for railroad-crossings of that class which are operated automatically by passing trains; and it has for its object to provide a gate of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A designates a section of railroad-track, and B is a crossing, at the four corners of which are erected vertical posts or uprights C C, which form the gate-posts, and at the upper ends of which are pivoted arms or levers E E of sufficient length to reach nearly half across the crossing, and having short arms F F extending in the opposite direction, as shown.

Attached to the levers E E, at suitable intervals, are a series of ropes, G G, which are allowed to hang or depend loosely therefrom, and which form the gates. These ropes, it will be seen, do not actually obstruct the passage at the crossing, but are more in the nature of a signal for the purpose of warning passengers from crossing the track. They possess the advantage over obstructing gates, that in case a wagon should be caught upon the track be-

tween the descending gates it may readily pass under the loose ropes, thereby avoiding danger. I would, however, have it understood that rigid gates of any suitable construction may be used in connection with my invention, whenever desired, without departing from the spirit of the invention.

H H are a pair of shafts journaled in suitable bearings transversely across the track on each side of and at some distance from the crossing. The bearings I I of the said shafts are so arranged as to be capable of a limited vertically-sliding motion, and they are mounted upon springs J J for the purpose of resisting the sudden shocks to which they are exposed without danger of breakage. Mounted upon the said shafts are drums K and spur-wheels L.

M is a wire rope or cable running along the track between the shafts H H, and wound in opposite directions around the drums K K, as shown. The ends of the said rope extend into suitable pits, N, formed under the shafts H, and are provided with weights O, by means of which the rope is kept taut.

P P are signal-posts arranged alongside the railroad-track near the shafts H H, which latter are intended to be some distance—say one mile more or less—apart. Pivoted to the upper ends of the said posts are the signal arms or levers Q Q, having short arms R, as shown, extending in the opposite direction from the fulcrum.

The short arms F and R of the levers E and Q are connected by means of wire ropes S, passing through suitably-arranged eyes or guides, with the rope M in such a manner that when the said rope is drawn in the direction indicated by an arrow all of the said arms shall be simultaneously lowered, while when it is drawn in the opposite direction they shall be simultaneously raised. The same motion of the rope M may be effected by means of a hand-lever, T, suitably arranged at some point near the crossing, when for any reason it shall be deemed desirable or necessary to do so.

This improved gate, together with the signals, is to be operated by passing trains, the locomotives of which are for this purpose to be provided with suitably-arranged rack-bars W, adapted to engage the spur-wheels L of

the shafts H, which, being mounted upon spring-bearings, as described, will not be liable to be displaced by the sudden shocks thus caused or otherwise damaged.

5 From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood.

10 Passing trains entering the section of track herein illustrated from either end will operate to close the gates and display the signals, warning other trains off from the same section, while on leaving the section they will also automatically open the gates and remove
15 the danger-signals. The latter operation may, however, in case the train moves off on a siding, be performed by means of the hand-lever. Other uses of the invention will readily suggest themselves to those who are familiar
20 with this class of devices.

I would state that the several operating ropes and rods are to be covered by means of suitable casings or pipes; also, that in practice I do not wish to confine myself to the precise construction and arrangement of parts
25 herein shown, but reserve to myself the right to all such modifications as may be resorted to without departing from the spirit of my invention.

30 I am aware that it is not new to construct railroad-gates in combination with signals, as such a construction is shown in Patents No. 235,755, issued December 21, 1880, to Ely, and No. 294,192, issued February 26, 1884, to
35 Wright and Aldrich, and I do not claim such

construction, broadly; but I am not aware that such signals have ever been operated by means of a cord, one end of which is secured to the signal and the other end to the main operating-rope; therefore,

I claim and desire to secure by Letters Patent of the United States—

1. In a gate for railroad-crossings, the combination of the gate-posts, the levers pivoted thereto, the signal-posts, the levers pivoted to the latter, the transverse shafts arranged near the signal-posts, the drums and spur-wheels mounted upon the latter, the longitudinal operating-ropes wound in opposite directions upon the said drums and having weights attached to the ends, and ropes connecting the main rope with the short arms of the gate, and signal-levers, substantially as and for the purpose set forth.

2. In a gate for railroad-crossings, constructed substantially as herein described, the herein-described operating-shafts provided with spur-wheels, and having vertically-sliding bearings mounted upon springs, as described, and adapted to be operated by a rack-bar on the under side of the locomotive, substantially as and for the purpose set forth.

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

GEORGE F. OEHL.

Witnesses:

THOMAS R. EAGGE,
OBADIAH P. QUAY.