

(No Model.)

E. J. HENKLE.

GATE FOR RAILROAD CROSSINGS.

No. 287,674.

Patented Oct. 30, 1883.

Fig. 1.

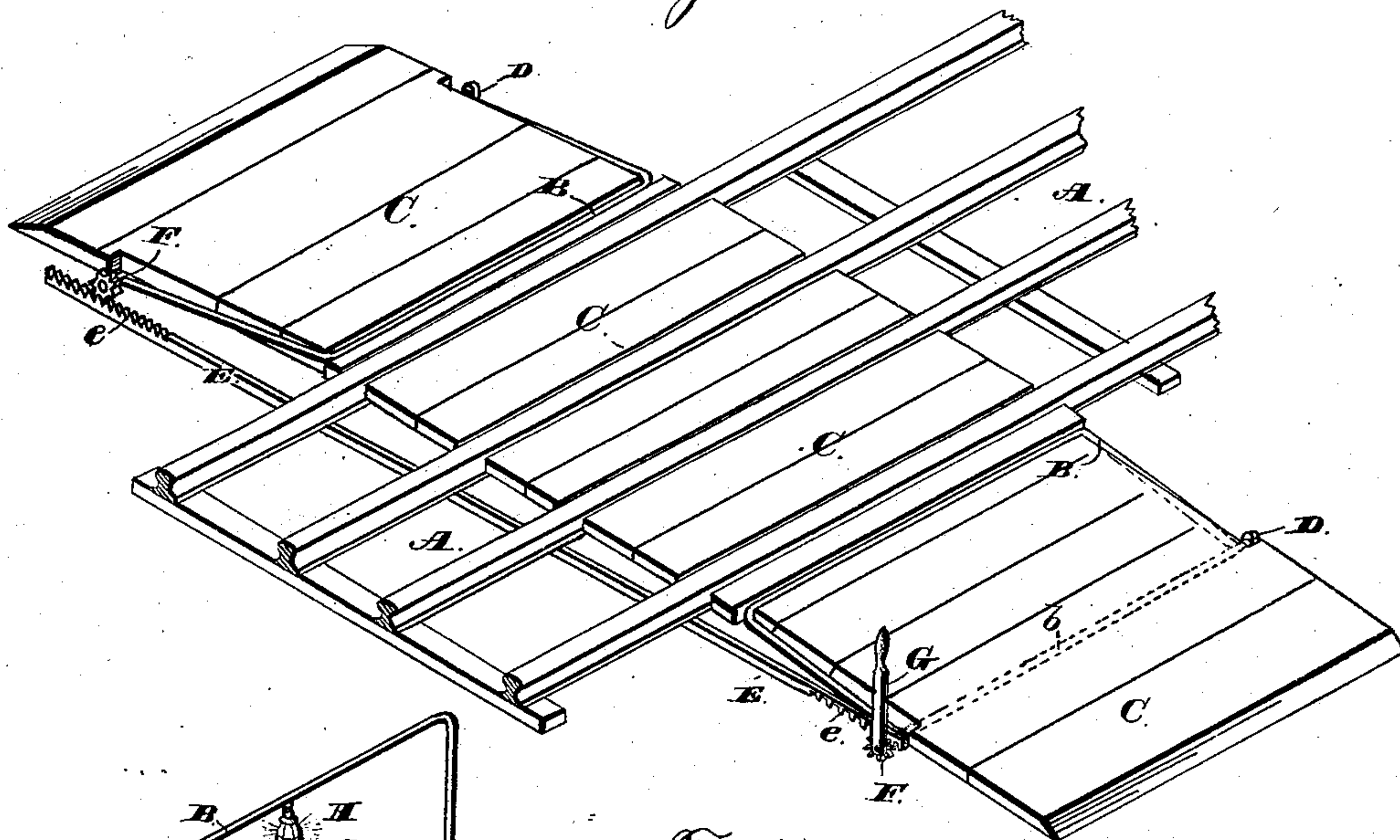


Fig. 2

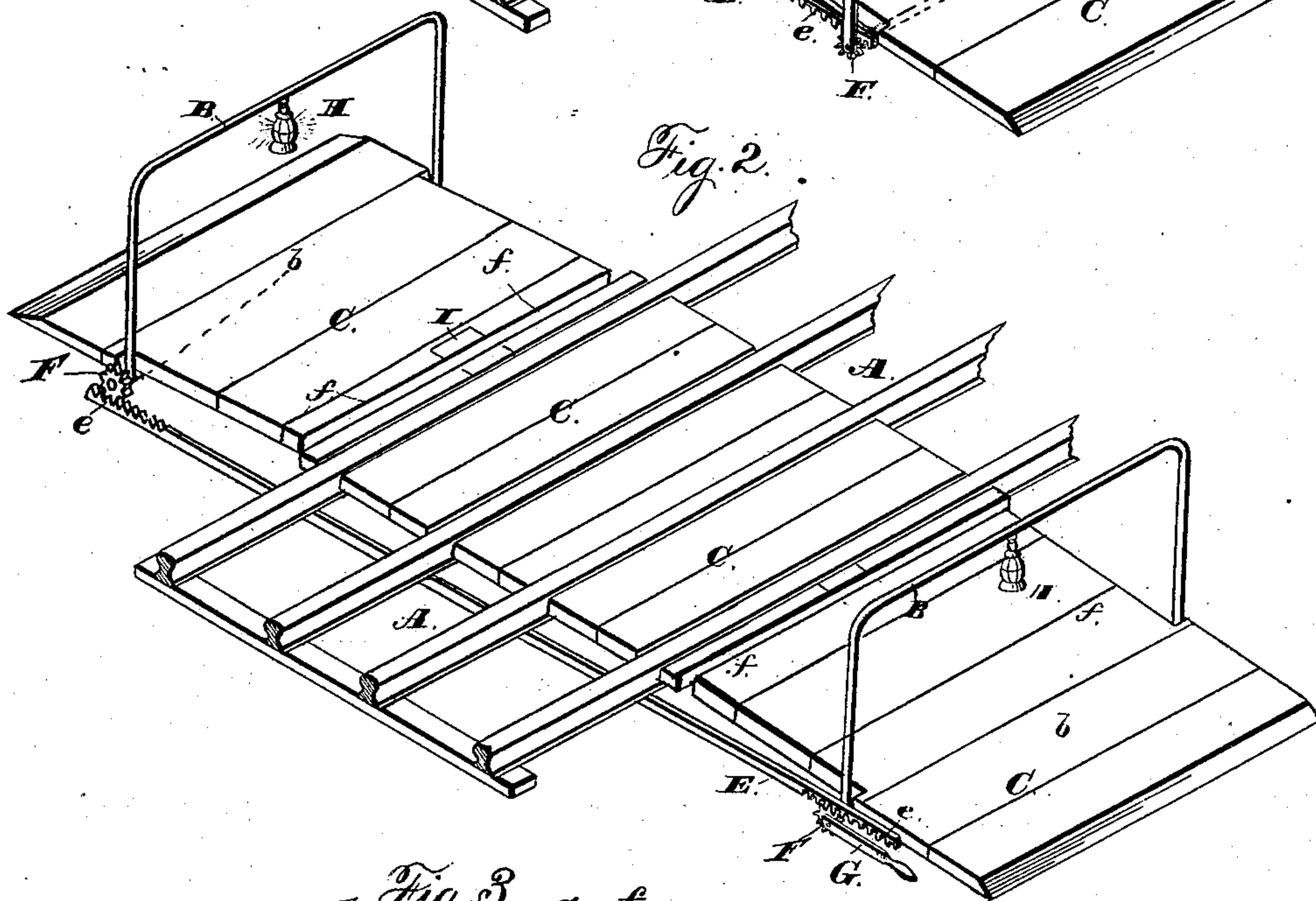


Fig. 3.



WITNESSES

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GATE FOR RAILROAD-CROSSINGS.

SPECIFICATION forming part of Letters Patent No. 287,674, dated October 30, 1883.

Application filed January 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, ELI J. HENKLE, a citizen of the United States, residing at the city of Baltimore, in the State of Maryland, have
5 invented new and useful Improvements in Gates for Railroad-Crossings, of which the following is a specification.

The object of this invention is to simplify the construction of mechanism employed for
10 operating that class of gates for railway-crossings in which a gate is located at each side of the track, and also to so construct and arrange the gates that on the approach of a train the gates can be raised, in order to close the cross-
15 road and serve as a signal to persons approaching the track, and also so that after the train has passed and it is desired to leave the crossing open the gates can be let down in beds or seats at the sides of the track, whereby said
20 gates shall be out of the way of passing vehicles and practically concealed from persons passing along the cross-road. These objects I accomplish in the manner and by the means hereinafter described and claimed, and illustrated in the accompanying drawings, in
25 which—

Figure 1 is a perspective view, representing a portion of a railway with the gates and gate-operating mechanism, the gates being shown
30 down. Fig. 2 is a perspective view of the gates and gate-operating mechanism with the gates raised or opened, and said figure also showing a lantern connected with each gate, for a purpose hereinafter set forth. Fig. 3 is a section
35 taken longitudinally of the crossing-road, showing the gate-pintle arranged in a box beneath the bed.

A indicates the railway, and B the gates, one of which is located over the cross-road at
40 each side of the track. It will be seen that at each side of the track—which in the present instance is a double one—is arranged an ordinary inclined carriage-way bed or platform, C, having its highest point in juxtaposition to the
45 outer rail. These inclined beds are such as are commonly used to form portions of the cross-road, whereby vehicles can readily cross the railway. Each one of these gates, which is substantially in the form of a yoke—that is,
50 each consists of two arms located, respectively, at opposite sides of the platform C, the outer

ends being rigidly connected by a transverse bar, and the other ends of the side arms being mounted on a transverse journal bar or pintle, hereinafter referred to. These gates are made,
55 preferably, for the sake of lightness and strength, of gas-pipe, and each is provided with a pintle or rock-shaft, *b*, which lies in a groove or box, *c*, formed transversely under the bed, whereby the said pintle is parallel with the
60 track, as shown in Fig. 3. The ends of the pintle of the gate are received in staples *D*, or other suitable bearings, which, while admitting of the pintle turning about its axis, keep it down within the groove in the bed.
65

E denotes a sliding bar, which crosses the track below the rails, so as to be out of the way of the passing trains. This slide-bar is provided at each end with a set of rack-teeth, *e*,
70 said two sets of teeth being respectively arranged on reverse sides of the bar—that is to say, one set of teeth is arranged upon its upper side and the remaining line of teeth upon its lower side.

Each gate-pintle is provided with a pinion, *F*, engaging the teeth at one end of the sliding rack-bar, and one of said pinions or pintles is provided with a lever-handle, *G*, for turning the pinion, so as to move the rack-bar. By
75 this arrangement it will be seen that when the handle is operated so as to turn one of the pinions the rack-bar will be moved longitudinally and the opposite pinion turned in a direction reverse to that in which the first pinion moves, such reverse movement being effected
80 by forming the two sets of rack-teeth on opposite sides of the bar; hence as the pinions are fixed on the gate-pintles the gates can be either swung simultaneously up into a vertical position or both swung down at the same
85 time. Each bed is provided with a seat or groove, *f*, shaped to receive the gate when the same is swung down, whereby a vehicle can pass over the gate without injury to it.

The gates will of themselves, during the
95 day, constitute, when raised, a sufficient signal to persons on the cross-road; but in order to provide a signal which shall be visible at night, a lantern, *H*, as shown in Fig. 2, can be hung on each gate. These lanterns, when employed,
100 will be seen when the gates are up, and when the gates are down can be received in suitable

boxes or chambers, I, located in the bed. In such case the lantern hung on the gate will at all times swing into a vertical position, and hence enter its seat vertically. The gate could
5 have a shield fixed above the lantern, so that when the lantern is in its seat such shield would form a cover for the seat or opening.

The rack-bar can slide in any suitable casing, and also a casing can be used to protect
10 the pinions, the lever-handles in such case working through a slot in the casing. A lever could be employed for each pinion, if preferred, although one lever will be found sufficient.

15 It will be observed that this mechanism is exceedingly simple, and that by weighting the lever or pintles both gates can be readily actuated, and that when desired the gate can be closed or lowered with great ease.

20 Having thus described my invention, what I claim is—

1. The combination, with a pair of gates hinged, respectively, at opposite sides of a rail-

way-track, and each provided at its hinged connection with a pinion, of a rack-bar extending transversely under the track and engaging the pinions of the gates, and means for sliding the rack-bar to simultaneously swing the gates to an upright position, substantially as described. 25

2. The combination, with a pair of gates hinged over the cross-road at opposite sides of the track, of a slidable rack-bar extending across the railway below the rails and engaging a pinion upon the pintle of each gate, the
30 teeth upon said rack-bar being respectively on opposite sides of the bar, whereby by operating the bar the gates can be simultaneously raised or lowered, substantially as described. 35

In testimony whereof I have hereunto set my
40 hand in the presence of two subscribing witnesses.

E. J. HENKLE.

Witnesses:

JAMES A. RUTHERFORD,
CHAS. B. TILDEN.