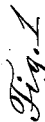


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Patented Feb. 21, 1911.

2 SHEETS--SHEET 1.



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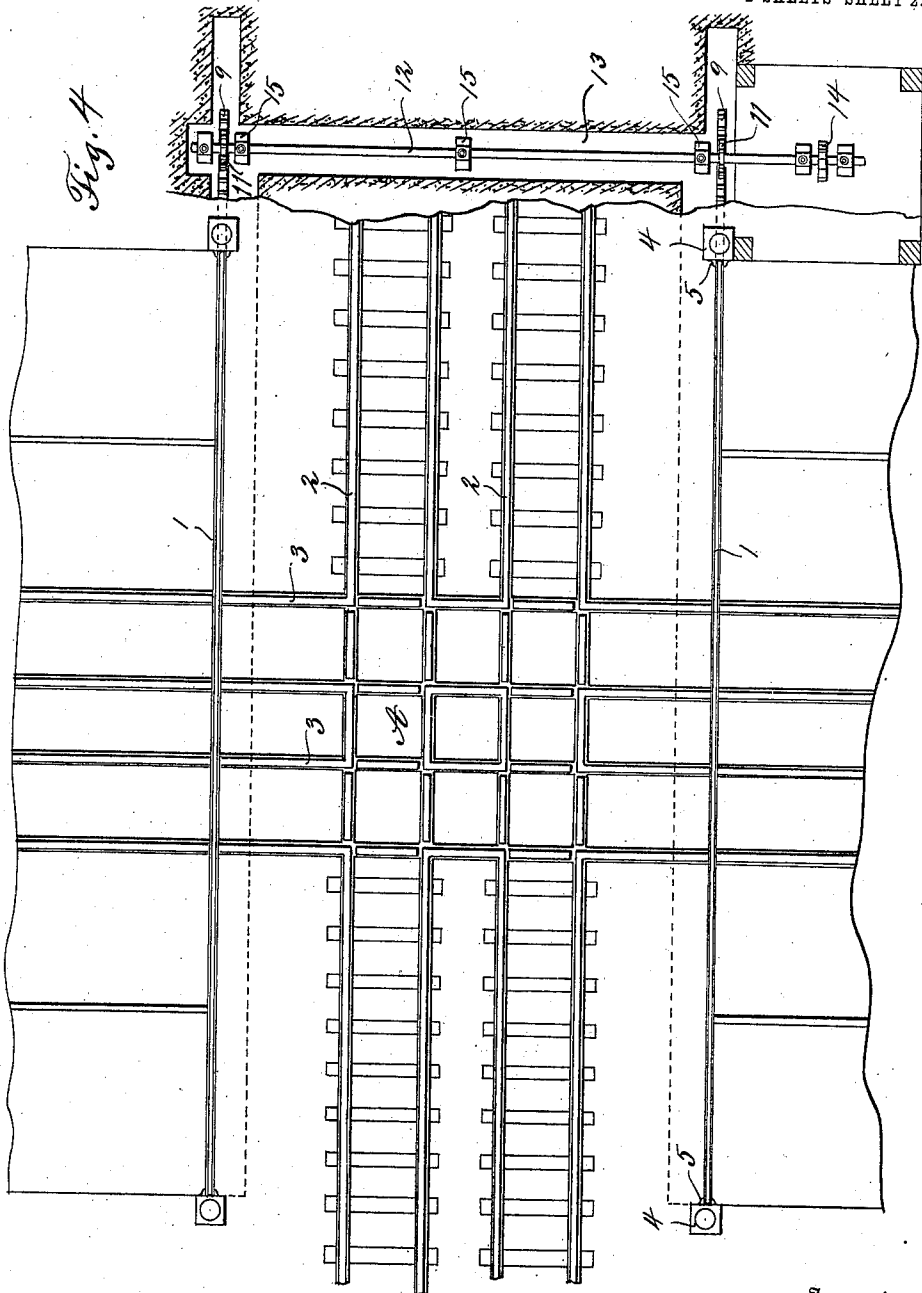
J. FLYNN.
RAILROAD GATE.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN FLYNN, OF KINGSTON, NEW YORK.

RAILROAD-GATE.

984,896.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN FLYNN, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Railroad-Gates, of which the following is a specification.

The object of the present invention is to provide a novel construction of gate suitable particularly for use at railroad crossings, or any similar places, the invention residing particularly in the employment of a special disappearing gate construction, and peculiar operating mechanism therefor.

The invention also resides in certain details of construction which will appear more fully as this description proceeds.

With the above and other objects in view this invention consists in the construction, combination, and arrangement of parts all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a longitudinal sectional view through the casing in which the gate is mounted and normally out of view beneath the surfaces of the roadbed or the like, dotted lines showing the position of the gate when upraised into operative position; Fig. 2 is a transverse section showing more clearly the gate post and arrangement of the same with respect to the rails of the tracks; Fig. 3 is a section taken about on line 3—3 of Fig. 1 and Fig. 4 is a top plan view showing a pair of gates on opposite sides of the railroad crossings, the view being partly broken away by bringing out the arrangement of the operating means by which the gates are raised and lowered.

Specifically describing the invention it is to be understood that one or more of the gates hereinafter described in detail may be employed for any of the general purposes necessitating the use of a gate construction.

In showing the application of the present invention, two of the gates 1 are illustrated, the same being arranged upon opposite sides of the railroad tracks 2 adjacent to points where said tracks 2 cross street railway tracks 3 or the like, the crossing being designated by A. The gates 1 are of like construction and each gate is supported by posts 4 having guides 5 between each end of the gate, and are adapted to slide vertically. Normally each gate 1 is received in a compartment 6 beneath the surface of the

ground, said compartment also having therein an actuator comprising spaced plates 7 connected together at their lower edges as shown at 8, the gate 1, when not in use, being located between the plates 7 in the compartment 6. The connecting portion 8 at the lower edges of the plates 7 is preferably a bar having one end thereof projecting from corresponding ends of the plates 7 as shown at 8', the projecting portions passing through the opening 10' near the lower end of the post 4 adjacent thereto and said projecting end of the bar furthermore having a rack 9 in mesh with the gear 11 on operating the shaft 12. Each gate has its bar 8 operable by means of a gear 10, the gears 10 of the two gates being arranged near the ends of the operating shaft 12, the latter being arranged also in a suitable compartment 13 beneath the surface of the ground and below the tracks 2. A gear 14 at one end of the shaft 12 may be connected by any suitable mechanism with operating devices in a signal tower or the like, such mechanism, however, not being essential to the present invention. The shaft 12 is supported in suitable bearings 15 at intervals in its length and tubes 16' extend upwardly from said bearings as shown in Fig. 1, to points adjacent the surface of the ground, whereby oil or a similar lubricant may be supplied to the bearings 15. Pins 16 are carried by the gates 1 at their lower portions and extend in opposite directions therefrom through inclined slots 17 formed at intervals in the length of the plates 7. The slots 17 form inclined cams whereby when the shaft 12 is operated, the gears 11 meshing with the racks 9 are adapted to impart a longitudinal movement to the plates 7. When the plates 7 are moved outwardly toward the shaft 12 in the above operation, it will be apparent that the pins 16 engaging in the slotted portions of the plates 7 will ride along said slotted portions and raise the gates 1 in an obvious manner. Movement of the plates 7 in a direction opposite to the shaft 12 will lower the gates 1, the latter always being guided in their vertical movement by the guides 5.

The operating mechanism above described is exceedingly simple and will readily permit of quick raising and lowering of the gates 1, any suitable number of which may be used as hereinbefore mentioned.

As shown in the drawings, the longitudi-

nal compartment or pit 6, which is adapted to receive the gate, is sufficiently wide to permit of entrance of an operator for purpose of access to the gate to repair or otherwise adjust the same. Lights or signals may be placed on the posts or piers 4 as shown at 18.

As shown in the drawings, the bottoms of the compartments are provided with suitable draining means in the form of outlets C, shown most clearly in Fig. 2 of the drawings. Said outlets C permit of proper drainage of the water and foreign matter received in the compartments.

Having thus described my invention, what is claimed as new is:

1. In combination, a vertically movable gate, a horizontally slidable plate, and inclined slot and pin connections between the plate and the gate, whereby a horizontal movement imparted to the plate will raise and lower the gate.

2. In combination, a gate, pins projecting from a side of the gate at its lower edge at intervals in the length, means for supporting the gate for vertical movement, a plate having a plurality of inclined slots receiving the pins on the gate, and means for imparting horizontal movement to the plate to cause the pins on the gate to move lengthwise of the slots of the plate, whereby the gate may be raised and lowered.

3. In combination, a pair of gate posts

provided with vertical guides, a gate arranged between said posts with its ends operating in said guides, a supporting surface formed with the compartment in which the gate is adapted to normally rest beneath said surface, a pair of plates arranged in said compartment on opposite sides of the gate and having a plurality of inclined slots therein, pins projecting through opposite sides of the gate into the slots of said plate, rack bars connected with corresponding adjacent ends of the plates, gears meshing with said rack bars, and means for operating the gears to move the plates horizontally and cause the pins on the gate to move longitudinally on the inclined slots of the plates whereby a vertical movement is imparted to the gate.

4. In combination a vertically movable gate, a compartment adapted to receive the same and from the upper end of which the gate is adapted to project, horizontal plates in said compartment having inclined cam portions operably connected with the gate to raise and lower the same, and means for imparting movement to said plates.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN FLYNN.

Witnesses:

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JOHN F. IRWIN.