D. V. FARMAN.

CROSSING GATE.

APPLICATION FILED MAR. 10, 1917.

1,271,877.

Patented July 9, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

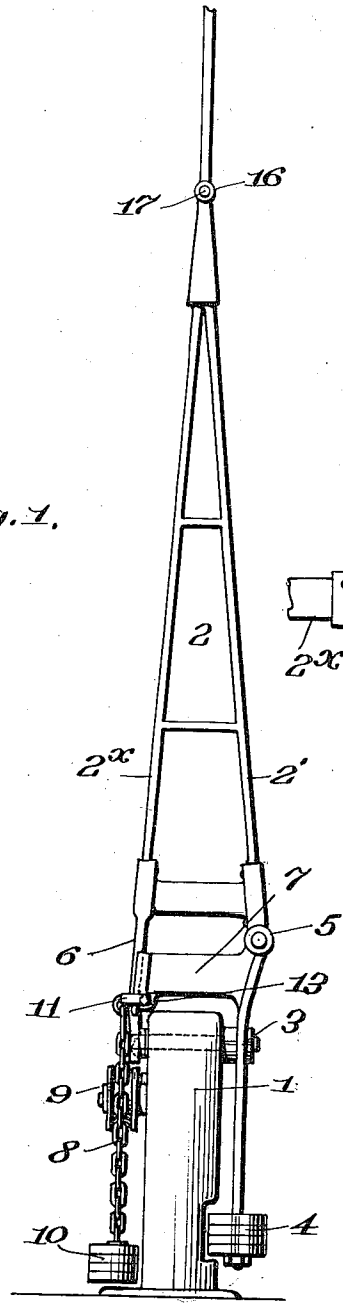
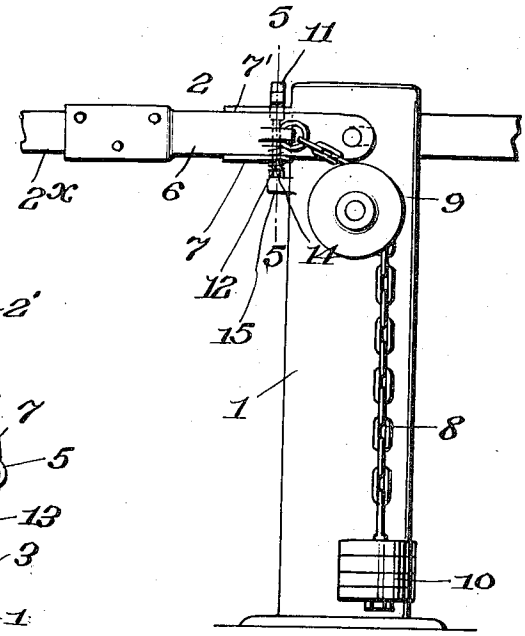


Fig. 4.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2.

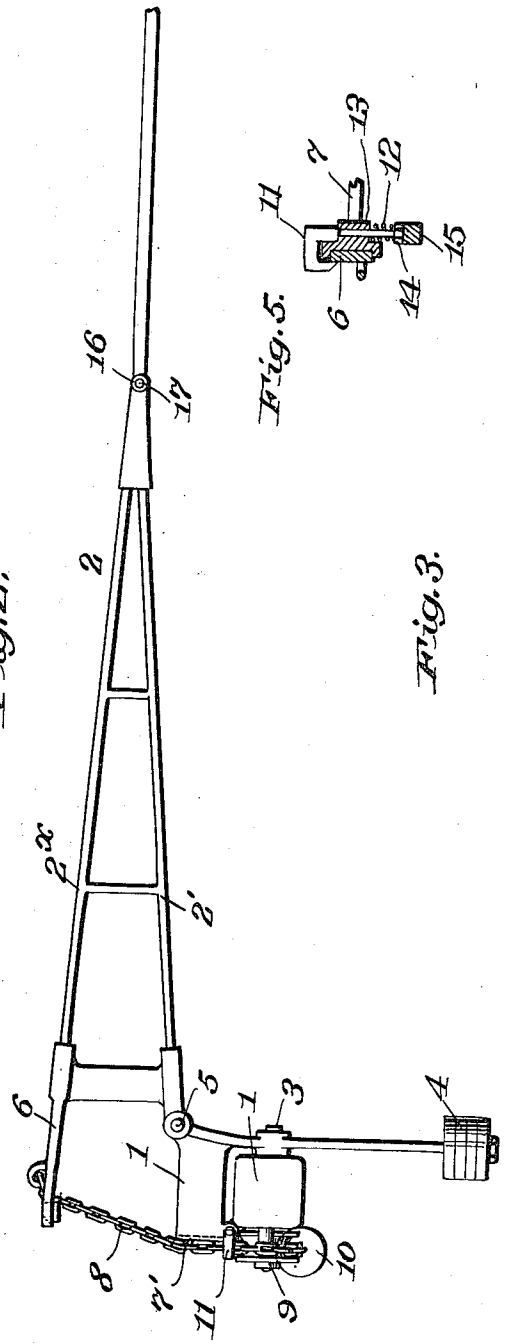
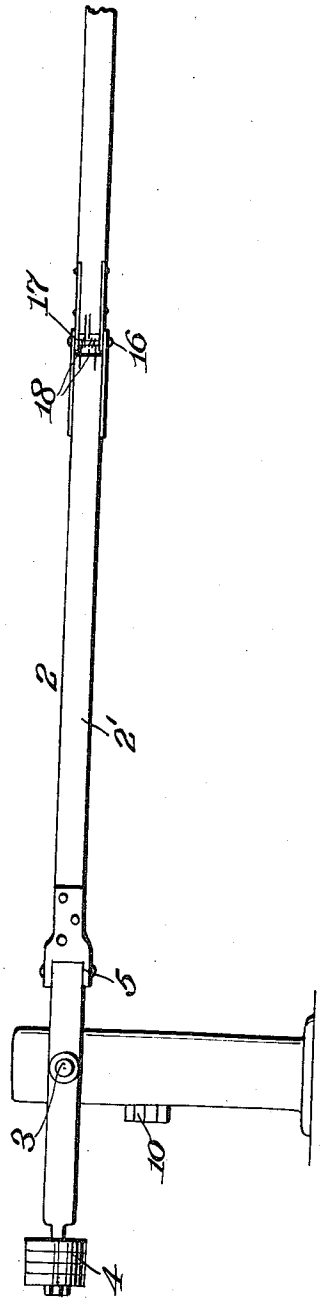


Fig. 5.

Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

DAN V. FARMAN, OF BATTLE CREEK, MICHIGAN.

CROSSING-GATE.

1,271,877. Specification of Letters Patent. Patented July 9, 1918.

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To all whom it may concern:

Be it known that I, DAN V. FARMAN, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Crossing-Gates, of which the following is a specification.

This invention relates to railway crossing gates and the principal object of the invention is to provide a gate of this nature with means for permitting the same to swing out while in its lowered position when accidentally struck by a vehicle so as to prevent the gate from being broken.

Another object is to provide means whereby the gate will automatically resume its original position across the road after the passage of the vehicle.

Another object of the invention is to provide means for automatically locking the gate against this lateral movement when in a raised position.

A further object of the invention is to provide the extreme end of the gate, which comes across the street car track when the gate is lowered, with a double action hinge so this part of the gate can swing in either direction.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings, wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a rear view of a gate made in accordance with this invention, showing the gate in raised position.

Fig. 2 is a plan view showing the gate lowered and pushed open.

Fig. 3 is a view of the right hand side showing the gate lowered.

Fig. 4 is a like view of the left side.

Fig. 5 is a view on the line 5—5 of Fig. 4.

Referring to these drawings, 1 illustrates the standard usually used in gates of this nature. 2 is the gate pivoted to the standard at 3, said gate having the usual counterpoised weights 4. At a point a little beyond the connection of the gate with the standard I provide one member 2′ of the gate with a hinge 5, the pin of the hinge being at right angles to the pivot 3. The other member 2^{x} of the gate is provided with locking means now to be described. Such means consists of a bar 6 secured to or forming part of the member 2^{x} and forming an extension of said member and this bar enters a recess 7′ on that part 7 of the member 2^{x} which carries the pivot 3. Thus, when the gate is in operative position the member 2^{x} is firmly connected with the part 7 while still permitting said parts to be disconnected.

To the free end of the bar 6 is secured a chain 8 and this chain passes over a roller 9 mounted on the standard 1, and has its other end connected to a weight 10 so that the weight tends to hold the members 2^{x} and 7 in contact. I provide a positive lock for holding the bar 6 in the recess 7′ and this lock consists of a U shaped catch 11 mounted on the member 7 and normally held in locked position by means of a spring 12 on one of the extended legs of the U and resting between the lug 13 which secures the catch to the member 7 and a nut 14.

When the gate is lowered the end of the catch comes in contact with a lug 15 on the standard 1 and is raised out of locking position. Near the extreme end of the gate I provide a double action spring hinge 16 which permits this end of the gate to have movement in two directions, this hinge consisting of a pivot 17 having two oppositely coiled springs 18 thereon, each having one end secured to the stationary part of the gate and its other end connected with the movable part of the gate so that the end of the gate can have movement in either direction but the springs will normally hold the gate in its central position.

It is to be understood that four of these gates are to be used, two on each side of the railroad track. Thus, it will only be necessary to have the gate open toward the right, that is, in the direction of the street traffic. I prefer, however, to have that part of the gate coming over the street car track to open both ways, so that if there should be occasion to run a car on the left hand track the gate would permit it to pass.

The operation of this gate is normally the same as the gates now in use. If the gate is lowered and an automobile or like vehicle should become unmanageable, or the driver thereof not see that the gate is down and

run into the gate, the same would swing on its hinge 5 and allow the vehicle to pass without harming either the gate or the vehicle. After the passage of the vehicle the weight 10 would cause the gate to close. As soon as the gate starts to rise the catch leaving the lug 15 will spring back into locking engagement and thus securely hold the bar 6 in the recess 7' and thus prevent sidewise movement of the gate when in raised position.

It is thought from the foregoing that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make slight changes in the construction and in the combination and arrangement of the several parts, provided such changes fall within the scope of the appended claims.

I claim as my invention:

1. In a crossing gate, a standard, a gate comprising an inner member pivoted on a horizontal pivot on said standard, and an outer member pivoted to the inner member on a pivot at right angles to the horizontal pivot, an extension on the outer member, the inner member provided with a socket to receive said extension, and a spring catch on the inner member normally engaging and securing the extension in the socket when the gate is in open position, and a lug on the standard engaging said catch to release the extension when the gate is in a closed position.

2. In a crossing gate, a standard, a gate comprising an inner member pivoted on a horizontal pivot on said standard, an outer member pivoted to the inner member on a pivot at right angles to the horizontal pivot, an extension on the outer member, the inner member provided with a socket to receive said extension, a spring catch consisting of a U-shaped member having one leg normally engaging and securing the extension in the socket when the gate is in open position, and the other leg extended and mounted in said inner member, a spring associated with said extended leg for normally holding its coacting leg in engagement with the extension, and a lug on the standard engaging the extended leg of said catch to release the extension when the gate is in a closed position.

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

DAN V. FARMAN.

Witnesses:

RAY D. CONE,

ROBT. J. SMITH.