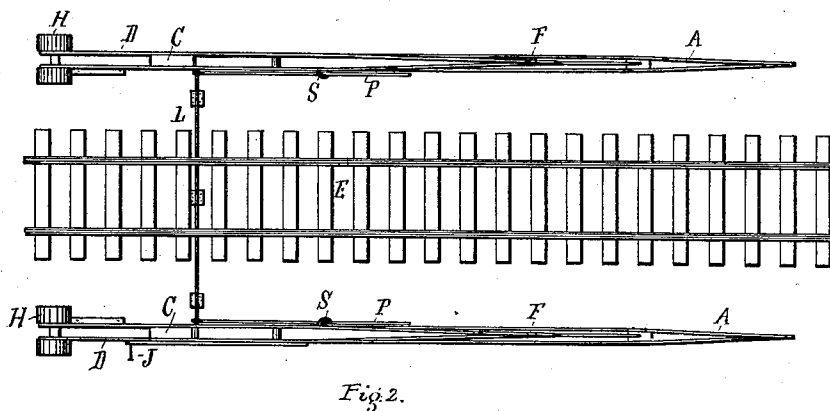
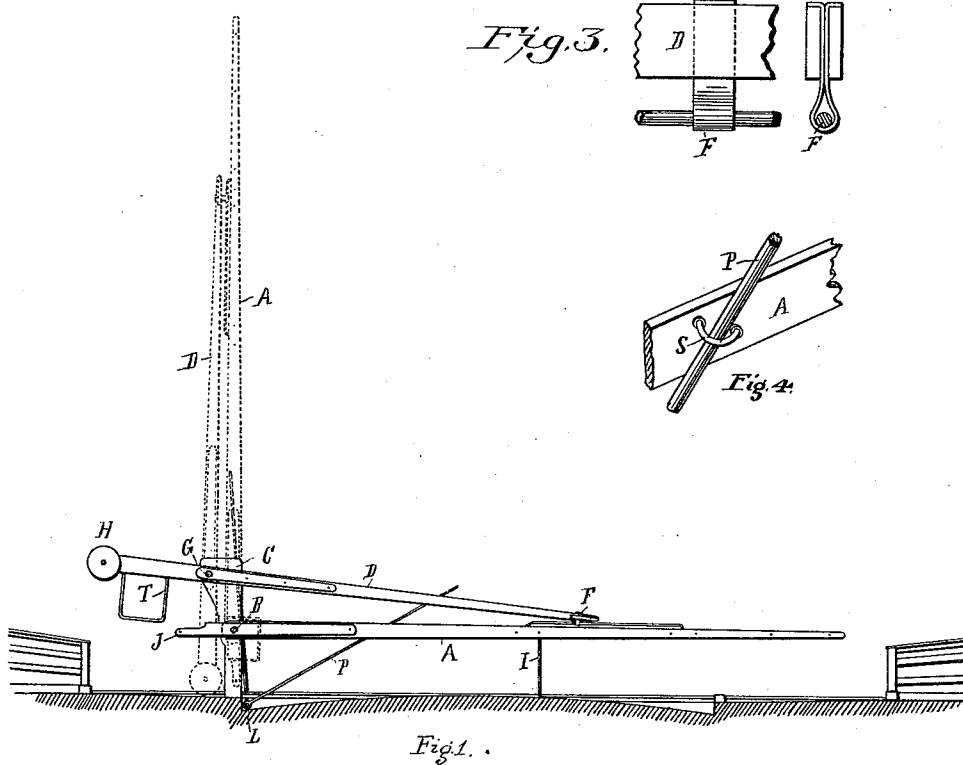


(No Model.)

L. HARRIS.
RAILWAY CROSSING GATE.

No. 521,881.

Patented June 26, 1894.



Witnesses:

Levi F. Boy
Asst. Pres.

Inventor:

Levi Harris
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UNITED STATES PATENT OFFICE.

LEVI HARRIS, OF KALAMAZOO, MICHIGAN, ASSIGNOR OF TWO-THIRDS TO
OSCAR M. ALLEN, SR., AND HORACE B. PECK, OF SAME PLACE.

RAILWAY-CROSSING GATE.

SPECIFICATION forming part of Letters Patent No. 521,881, dated June 26, 1894.

Application filed December 11, 1893. Serial No. 493,403. (No model.)

To all whom it may concern:

Be it known that I, LEVI HARRIS, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have
5 invented a new and useful Railway-Crossing Gate, of which the following is a specification.

This invention relates to that class of crossing-gates for railways which are swung upward in the air on a base fulcrum.

10 The object of the invention is to employ one of the gates on each side of the track at one side of the street, said gates reaching across the street, and to operate said gates by means of weighted-levers and connecting
15 means between the gates, by applying power to one of the gates.

Other objects will appear in the following detailed description and claims.

20 In the drawings forming a part of this specification Figure 1 is a side elevation showing the street in cross-section; Fig. 2 a plan of Fig. 1; Fig. 3 details enlarged from Fig. 1; and Fig. 4 shows a perspective of enlarged details from Fig. 2.

25 Referring to the lettered parts of the drawings, A shows the gate-bars fulcrumed at the lower end at B, to the posts C, which posts are at the sides of the track E, and at one side of the street, and between the latter and
30 the side-walk. The gate-bars are of a length to reach across the street from the outside of the side-walk on one side of said street (left side in Fig. 1.) to the inner side of the side-walk on the other side of the street. By employing such long gate-bars I only need two
35 at one side of the street, one on each side of the track E, Fig. 2. I am enabled to use gates of this unusual length by attaching the lifting means well toward the upper or free end
40 of the gate-bars A, which means consist of weighted-levers D, having sliding connections F, with the gate-bars A, at a point well toward the upper or outer end, Figs. 1 and 3. These weighted-levers D, are above the gate-
45 bars A, and parallel therewith, and are fulcrumed at G to the posts C, the lower ends of said weighted-levers extending from the fulcrums G, over the side-walk at this side, Figs. 1 and 2, and provided with a weight at said
50 ends. The design is to so proportion the gate-bars, levers, and weights in relation to the ful-

crums G, and points of attachment, that the gates will be balanced or nearly so on their fulcrums, by which means but little power is needed to swing the gates up to their dotted
55 position in Fig. 1, to open the gates, or to swing them down to close them.

Swinging rests I, are pivotally attached to the gate-bars A, Fig. 1, to hold them at a horizontal position above the street.

60 Power to operate the gates is applied to the crank J, attached to the lower end of one of the gates, Fig. 2, or any suitable connections may be made with the gate and a watch-house
65 or station, to operate the gates from a distance.

Connection is made between the gates by a revoluble rod L transverse to the track E, and having suitable bearings beneath the track, each end of said rod being turned at right
70 angles and attached to the gate-bars by a sliding connection S, Figs. 2 and 4. By this means the ends P, of the revoluble rod L, will swing up or down when power is applied to one of the gates at J, and both of the gates
75 will be operated in unison.

At T, Fig. 1, is shown a loop attached to the weighted levers D, over one of the walks, and projecting downward toward said walk, to guard the same when the gates are closed
80 or in their down position. Flexible hangers not here shown, or any other suitable means may be employed for this purpose, and may be attached to the end of the gates over the other walk if desired.

It will be observed that the gate-bars A, 85 and weighted-levers, D, as here shown, are made of two strips separated and attached together by studs in the form of a truss, but while this is deemed desirable it may be considered a matter of choice.

90 The "sliding-connections" S, F, in Figs. 3 and 4, as here shown consist of rods running through loops in a loose manner, but it is also a matter of choice how the connections are made, so long as the parts are permitted to
95 play freely as indicated.

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

1. A railway crossing gate, comprising posts 100 one at each side of the track at one side of the street, gate-bars, one being fulcrumed at

- the lower end to one of the posts, and another to the other post, weighted-levers above and parallel with the gate-bars, one of said levers being fulcrumed at a point above the lower end to one of said posts and the other to the other post, the lower ends of said levers being provided with weights beyond the fulcrum, the upper end of said weighted-levers forming a sliding connection with the gate-bars, and a revoluble rod transverse to and beneath the track, the ends of said revoluble rod being turned at right angles and forming sliding connections with the gate-bars, substantially as set forth.
2. A railway crossing gate, comprising gate-bars fulcrumed at the lower ends, levers weighted at the lower ends and fulcrumed at a point above said ends, the upper ends of said weighted-levers forming a sliding connection with the gate-bars, and a revoluble connecting rod right angled at the ends and

forming a sliding connection with the gate-bars, substantially as set forth.

3. A railway crossing gate, comprising a post at the side of the street, a gate-bar fulcrumed at one end to said post, the other end extending across the street and side walk at the other side, and a lever fulcrumed above its lower end to said post, said lower end of the lever being of a length to extend across the side walk at this side of the street, and bearing a weight, and the other end of said weighted-lever forming a sliding connection with the gate-bar, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

LEVI HARRIS.

Witnesses:

O. M. ALLEN,
HORACE B. PECK.