

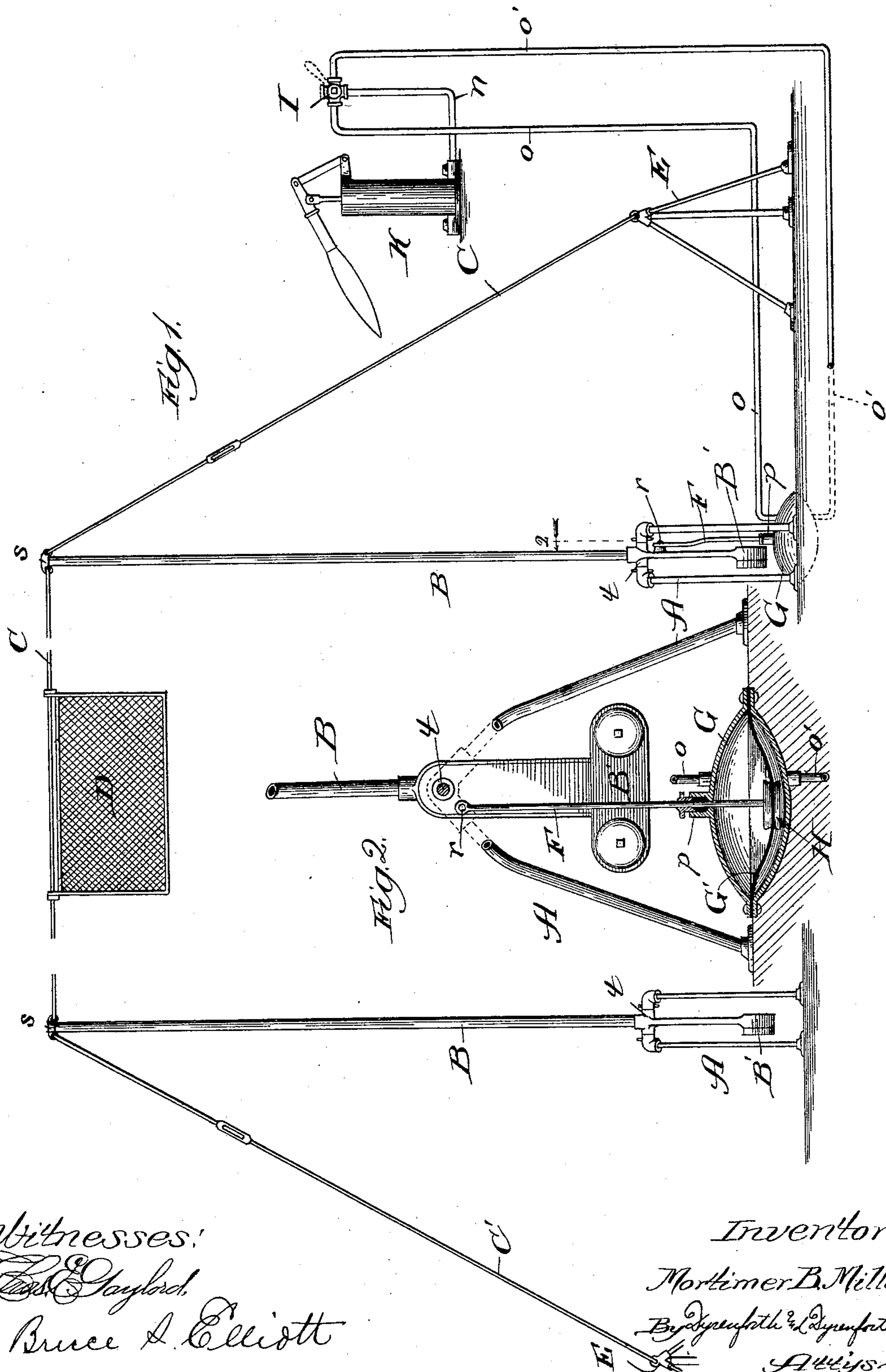
(No Model.)

2 Sheets—Sheet 1.

M. B. MILLS.
RAILWAY GATE.

No. 480,955.

Patented Aug. 16, 1892.



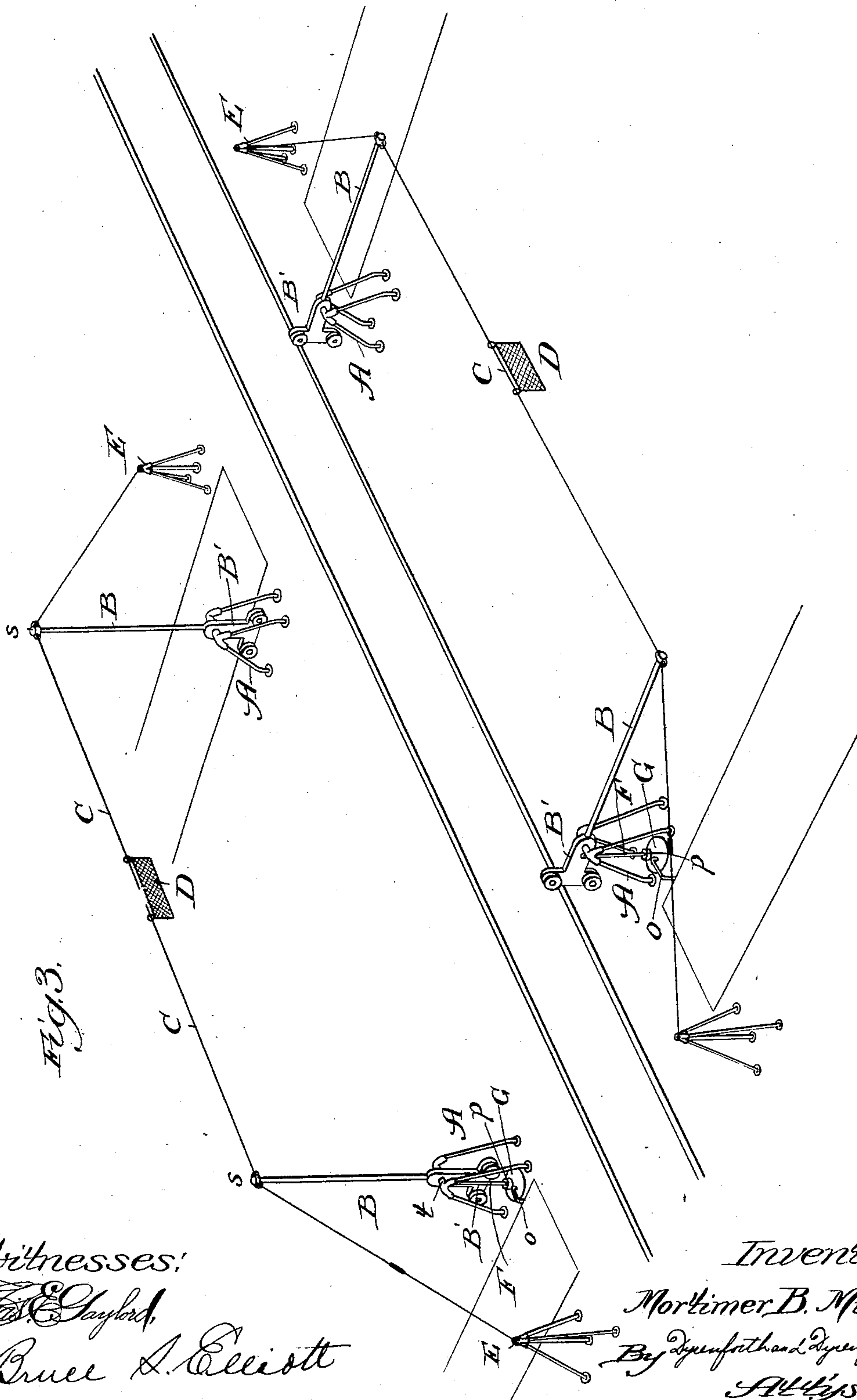
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Witnesses:

E. E. Gaylord,

Bruce A. Elliott

Inventor:

Mortimer B. Mills,

By *Dyrenforth and Dyrenforth*
Attys in

UNITED STATES PATENT OFFICE.

MORTIMER B. MILLS, OF CHICAGO, ILLINOIS.

RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 480,955, dated August 16, 1892.

Application filed October 5, 1891. Serial No. 407,784. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER B. MILLS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Railway-Gates, of which the following is a specification.

My invention relates to an improvement in gates for railway-crossings.

10 The object of my invention is to provide a railway-gate for crossings which may be operated by pneumatic or mechanical pressure, which shall be easy of manipulation, and which while operated from a point adjacent to the
15 track shall present an obstruction in the roadway and sidewalk a short distance from the track, thus contributing greater effectiveness to the gate.

20 To the foregoing ends my invention consists in the general and specific details of construction and arrangement of parts, as hereinafter set forth and claimed.

In the drawings, Figure 1 is an end elevation of a gate constructed and arranged according to my invention, the gate being illustrated as operated through the medium of a
25 pneumatic pump and the pump mechanism being illustrated diagrammatically. Fig. 2 is a vertical sectional view of one of the gate-arm supports, taken on the line 2 of Fig. 1 and viewed in the direction of the arrow; and Fig. 3 is a perspective view of a railway-crossing, showing one gate down.

30 A A represent standards, one at each side of the roadway on the same side of the crossing. It is preferable to construct these standards of tubular metal and in the form of a spider, converging toward the top, at which point a coupling *t* affords a pivot-bearing for
40 the gate-arm.

B B represent gate-arms extending upward parallel with each other to a suitable height and pivotally mounted on the pivots *t* and carrying at their lower extremities the weighted
45 arms B'. The upper extremities *s* of the arms B are joined by a cable C, upon which is hung, if desired, a sign-board D.

50 Adjacent to each standard A and on the opposite side of the sidewalk are standards E, from each of which a cable C' extends to the end of the adjacent arm B.

Any convenient mode of raising and lowering the arms B B may be employed; but I have illustrated and usually prefer the pneumatic means shown in the drawings, a description
55 of which is as follows: At a point on one of the arms B, near the pivot *t*, a piston-rod F is joined thereto, preferably through the medium of the pin *r*. Below the arm, and by preference set into the ground below the
60 standard, is a shell G, oppositely convexed, centrally within which is a diaphragm G'. The piston-rod F passes through a stuffing-box P in the upper wall of the shell and is joined to the diaphragm G' by the plates H.
65 From the upper part of the shell leads an exhaust-pipe *o* and from the lower part of the shell, below the diaphragm, leads the entry-pipe *o'*. The pipes *o o'* meet at the compound valve I, with which a pipe *n* affords commu-
70 nication from a pump K.

The operation is as follows: The arms B and other parts being in the position indicated in Figs. 1 and 2 of the drawings, the valve I is manipulated and the pump operated to cause
75 air to enter the shell G below the diaphragm G'. The pressure raises the diaphragm and piston F and causes a revolution of the arm B on its pivot of one-fourth of a circle, thus bringing the arm from the vertical to the hori-
80 zontal. As the two arms B are connected together, they necessarily move together, thereby bringing the cable C to a line parallel with the ground and at such distance therefrom as may be determined upon, the sign D depend-
85 ing from the cable, while the cables C' present an obstruction along the sidewalks from the extremity of each arm B to each standard E.

What I claim as new, and desire to secure
90 by Letters Patent, is—

1. A railway-gate comprising standards on opposite sides of the roadway, arms connected with each other and pivoted in the standards, respectively, to rise and fall parallel with each
95 other, and cables extending from each arm laterally to a point beyond the standard, substantially as described.

2. A railway-gate comprising, in combination, the standards A, located, respectively,
100 on opposite sides of the roadway, the standards E, adjacent to standards A, gate-arms B,

pivoted in the standards A, respectively, and
having the weighted lower ends B', cable C,
carrying the sign D and connecting the ex-
tremities of the arms B, the cables C', con-
5 necting the extremities of each arm with the
standards E, and gate-arm-operating mechan-
ism, such as the pneumatic pump K, rod F,

connected to the arm, and intermediate mech-
anism, substantially as described.

MORTIMER B. MILLS.

In presence of—

M. J. FROST,

J. W. DYRENFORTH.