

(No Model.)

2 Sheets—Sheet 1.

A. PETERSON.
GATE.

No. 479,457.

Patented July 26, 1892.

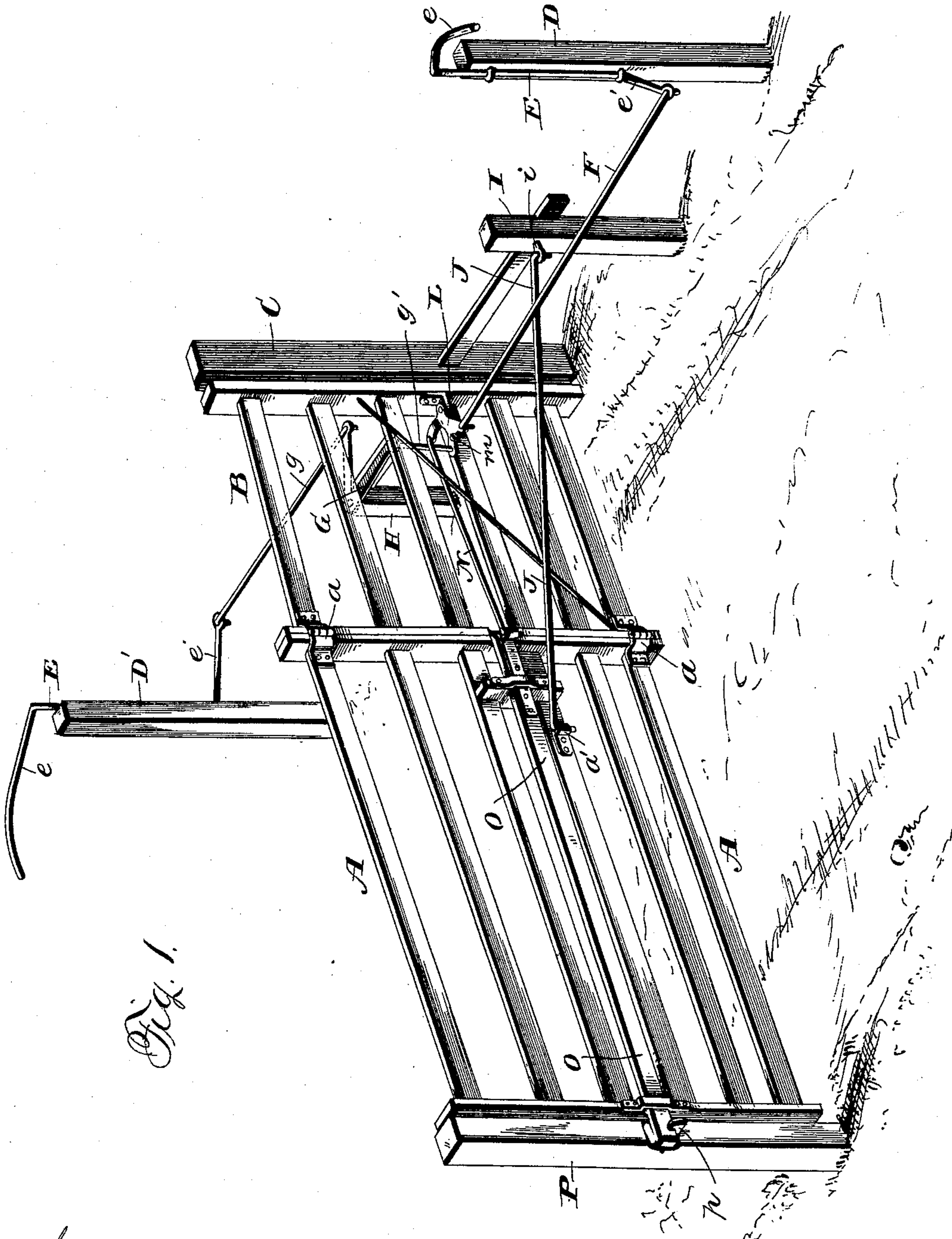


Fig. 1.

Witnesses
by Williamson,
A. L. Hough

Inventor
Alfred Peterson
by Franklin H. Hough
His Attorney

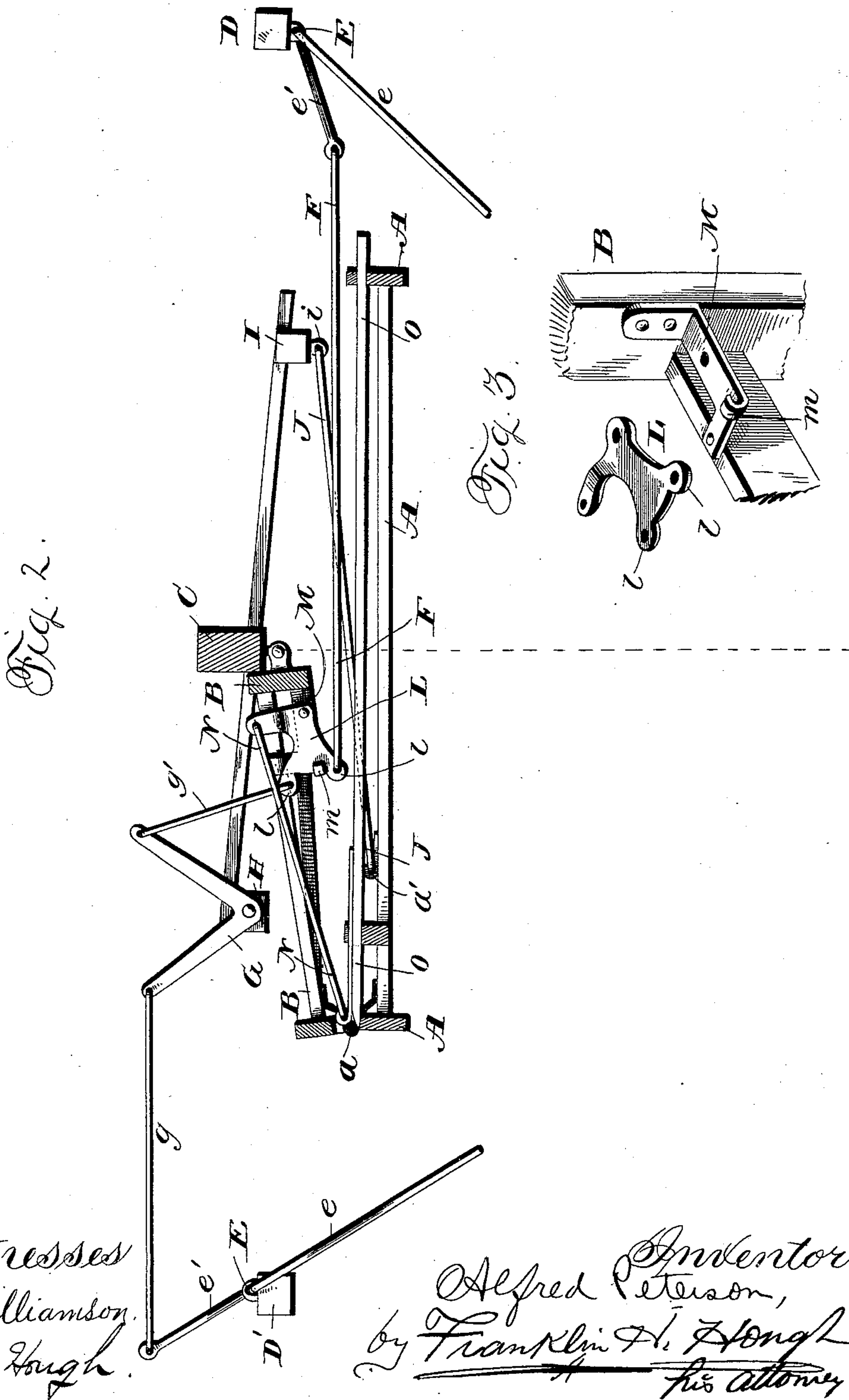
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 C. Williamson
 A. L. Hough.

Alfred Peterson,
by Franklin H. Fong
his attorney

UNITED STATES PATENT OFFICE.

ALFRED PETERSON, OF ORION, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 479,457, dated July 26, 1892.

Application filed March 15, 1892. Serial No. 424,995. (No model.)

To all whom it may concern:

Be it known that I, ALFRED PETERSON, a citizen of the United States, residing at Orion, in the county of Henry and State of Illinois, have invented certain new and useful Improvements in Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a gate that can be opened and closed easily and quickly, which will require but a small amount of space, and whose actuating mechanism shall be quite simple and not liable to get out of order.

To these ends and to any others which the invention may promote, the invention consists in the gate and its operating mechanism constructed and operating as hereinafter specified and claimed.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, in which—

Figure 1 is a perspective view of my gate when closed. Fig. 2 is a plan view, partly in section, when the gate is open; and Fig. 3 is a detail perspective view of a portion of the latch-operating device.

My gate is composed of two sections A and B, hinged together by hinges *a a*, which permit the sections to move in but one direction. The section B is about one-half the length of the other section, and each consist of a like number of horizontal bars secured to two vertical bars or posts. Section B is hinged to the hinge-post C and is designed to swing in one direction only.

On the sides of the hinge-post C and in line therewith and with each other are two posts D and D', placed as close to the hinge-post as the swing of the gate will allow. Journalled on each post is a vertical shaft or rod E, whose two ends *e* and *e'* are bent at right angles to the shaft, the end *e* constituting a handle or arm for turning or rocking said shaft and the end *e'*, a crank-arm by means

of which the gate may be opened and closed. As the connections between the crank-arms *e'* of shafts E and the gate are different on the two sides of the gate, I will describe them separately. On the side away from which the section B swings in the operation of opening the connection consists simply of a straight rod or lever F, and said bar and its crank-arm are within the roadway. The crank-arm *e'* of the other shaft extends in a direction opposite the one just described, and between it and the gate is a bell-crank lever G, pivoted on a short post H, placed midway between the post D' and the hinge-post. A rod *g* connects one arm of the lever G with the crank-arm *e'*, while a second arm *g'* connects the other arm and the gate. About midway between the hinge-post and the shaft journalled on the post D is a short post I, from an eye *i* in which to an eye *a* on the gate-section A extends a straight rod J. The eye *a* is only a short distance from the hinge-joint between the sections A and B. The rods F and *g'* are not connected to the gate directly, but to a device carried by the short section B, that enables a latch to be operated to release the gate at the first movement of the shaft E and before the gate begins to swing. Said device consists of a bell-crank lever L, pivoted on a plate M, attached to the vertical bar of the section B adjacent to the hinge-post and to one end of one of the horizontal bars of said section. To one end of said lever L, both rods F and *g'* are connected, while from the other arm a rod N extends to and is connected with the end of a sliding latch-bar O, that moves in supporting-guides carried by the gate-section A. The other end of said latch co-operates with a locking bar *p* of well-known form, fixed to a post P. The motion of the bell-crank lever L is limited by means of a lug *m* on the plate M, which engages two extensions or projections *ll* on said lever.

The operation of the gate is as follows: If a person is approaching the gate from the side on which the post D is located, the handle *e* of the shaft E is grasped and moved toward the gate—that is, in the direction in which the person is moving. The first effect of this will be to swing the lever L until it is stopped by the lug *m*, and so slide the latch O out of

engagement with the locking bar *p*. Continued movement of the handle *e* will swing the section B on its hinges toward the post D', and as said movement progresses the section A, because of the rod J, will be drawn away from the post P, moving on its hinge connection with the section B. The section A, it will be seen, thus has a double motion, as while turning on the hinges *a* it is also being moved by the section B as the latter is turned on its hinges. Its latch end does not describe a circle, but an ellipse, and in consequence when the gate is fully open one-half of said section will be on each side of the hinge-post and not all upon one side, as would be the case were it hinged directly to the same. Thus the gate when opening and when opened requires little space on either side of the hinge-post, and the posts D and D' can be placed not far from the latter. On passing through the gate and reaching the handle *e* of the shaft E, that is journaled on the second post D', said handle is grasped and moved in the direction of travel, whereupon the gate will be closed. The first movement of the handle in closing the gate is to swing the lever M until stopped by its stopping device, and as this will cause the latch O to be projected to its locking position, and as said latch reaches the post P in this position, it is constructed so as to have enough vertical motion to allow it to ride up over and engage the locking-bar *p* after the manner of an ordinary pivoted latch. The shafts E E rock in opposite directions, so that when the gate has been opened by a person who goes through the handle of the shaft on the other side will be in position to close the gate by a forward movement. The gate always moves in the

same direction, whether moved from the shaft E on one side or the other.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. The combination of the two gate-sections A and B, hinged together, the section B being hinged to a post, the bell-crank lever attached to the section B, the latch device connected to one arm of said lever and having one end working in a notch in the adjacent uprights of the two sections and extended across the same, the two oppositely-extending gate-swinging devices connected to the other arm of the lever, and the rod extending between the section A and a relatively fixed point.

2. The combination of the two gate-sections A and B, hinged together, the section B being hinged to the post, the bell-crank lever attached to the section B, the stop device to limit its motion, the sliding latch-bar capable of a vertical motion, the locking-bar to co-operate with said latch-bar, the rod connecting the latter and one arm of said bell-crank lever, the two crank-shafts on opposite sides of the gate, the connections between said shafts and the other arm of said bell-crank lever, including upon one side a bell-crank lever G, and a vertical rod *g'*, connecting one arm thereof with the bell-crank lever on the section B, and the rod extending from the section A to a relatively fixed point.

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

ALFRED PETERSON.

Witnesses:

JAMES N. ROSENSTANE,
OTTO E. PETERSON.