(No Model.) 2 Sheets—Sheet 1.

R. F. HAGEMAN.

GATE.

No. 544,915. Patented Aug. 20, 1895.

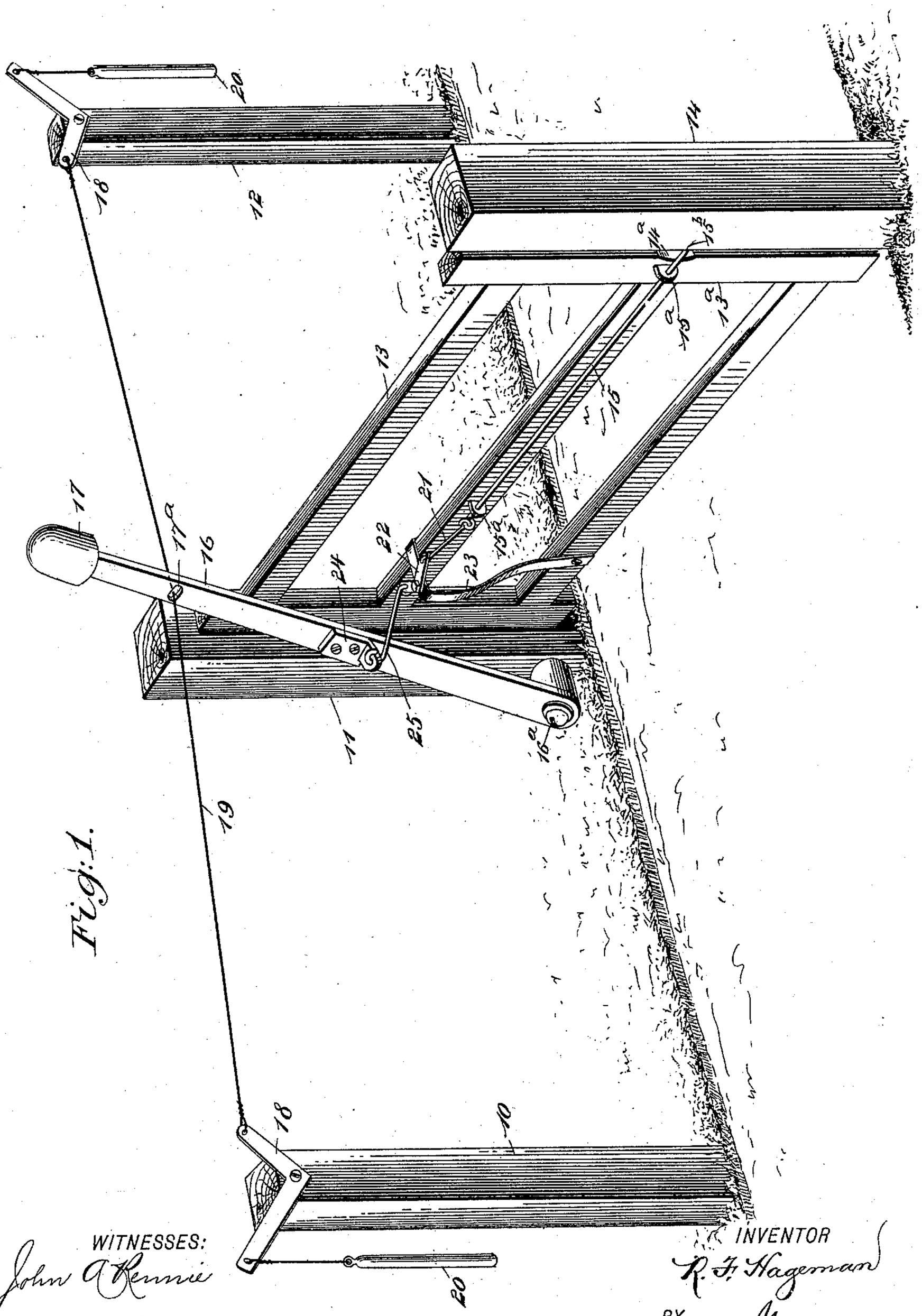

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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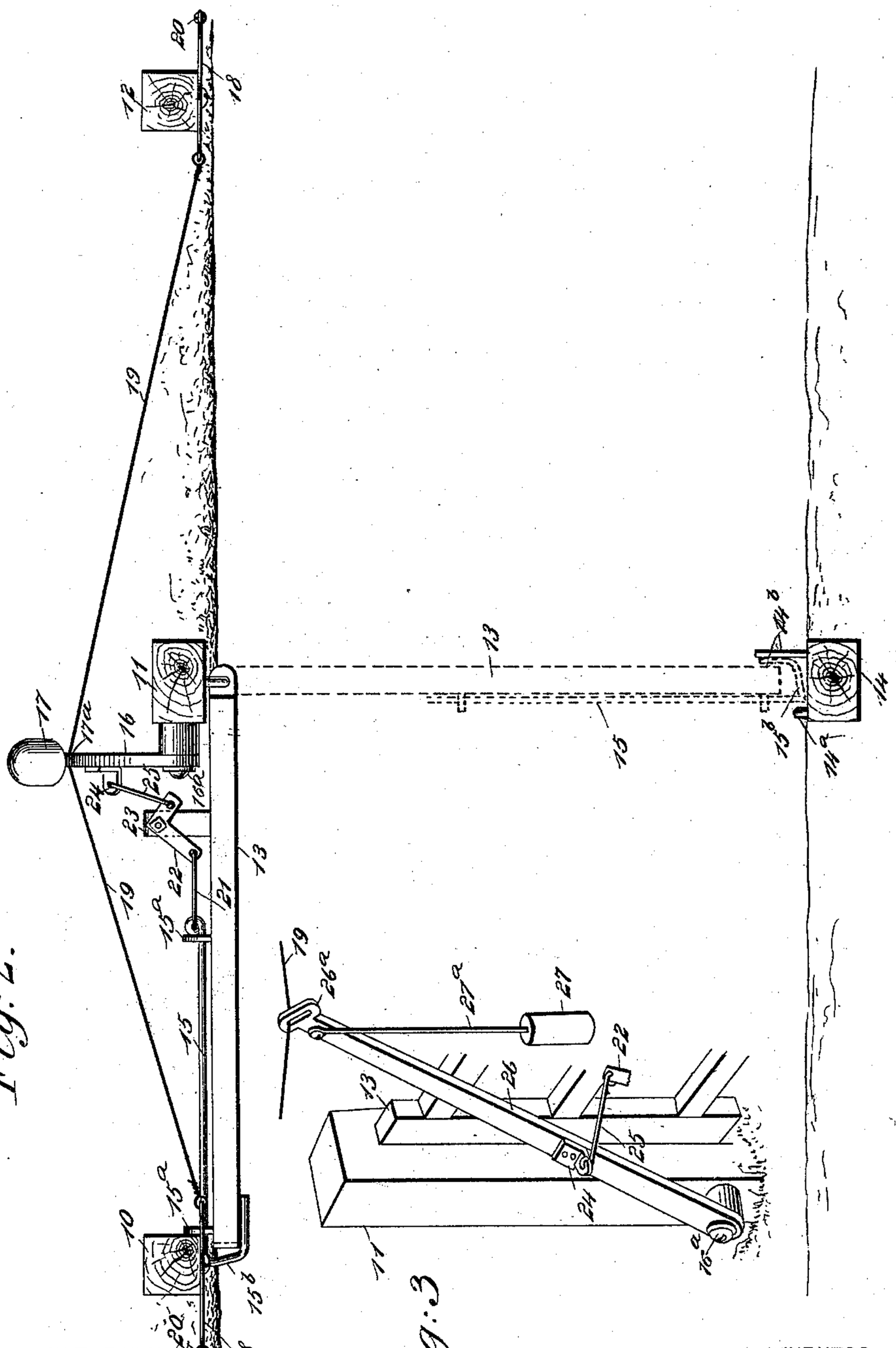

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

RANDOLPH F. HAGEMAN, OF NEW MADISON, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 544,915, dated August 20, 1895.

Application filed May 9, 1895. Serial No. 548,749. (No model.)

To all whom it may concern:

Be it known that I, RANDOLPH F. HAGEMAN, of New Madison, in the county of Darke and State of Ohio, have invented a new and Improved Gate, of which the following is a full, clear, and exact description.

This invention relates to an improved farm-gate which is operative from either side to open or close it, and has for its object to provide a gate of the character mentioned which will be simple in construction and reliable in operation, affording a safe barrier for a road or passage way, which may be conveniently and easily swung in direction to open or close the said gate by an operator on foot, in a vehicle, or on horseback, as occasion may require.

The invention consists in the construction and combinations of parts, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improved gate shown in closed adjustment. Fig. 2 is a plan view of the device, showing gate opened; and Fig. 3 is a perspective view, in part, of the improvement slightly modified in form.

There are three posts 10 11 12 provided for the support and operation of the gate 13, the said posts being arranged substantially in alignment at one side of a road or passage way that is to be guarded by the improved gate, and the latter is hinged by any suitable appliance to the central post 11, by one end of said gate, which will permit it to swing across the roadway and have a latched engagement with the post 14, located at a proper distance from and opposite the central post 11.

The latching device, which is a feature of the invention, consists of a rod 15, having one end return bent to form a loop 15^b thereon, which is adapted to loosely embrace the upright bar 13^a of the gate 13 when in place thereon, the latch-rod being horizontally supported on the gate to receive longitudinal sliding movement by its loose engagement with the perforated ears 15^a or other supports that project from the gate, as shown in Figs. 1 and 2. The latch-loop 15^b of the rod 15 is designed to engage with the latch-lug 14^a on the post 14 when the gate is in closed adjustment, as indicated by full and dotted lines in Fig. 2.

The preferred device for affording means to manually operate the gate at either side of the same, so as to open or close it, consists of the tumbling-lever 16, which in the form shown in Figs. 1 and 2 comprises a lever of suitable length, which is pivoted at its lower end on the side of the post 11, as at 16^a, having a washer introduced where pivoted, to adapt the lever for free vibration. A weight 17 is formed or secured on the upper end of the tumbling-lever, and at a proper point below and near said end a perforation 17^a is produced in the body of the lever.

Two bell-crank levers 18 of like form are pivoted on the posts 10 and 12 near their upper ends, and from the nearest ends of the bell-cranks a single wire strand or other pliable connection 19 is extended, the ends of the latter being attached to the bell-cranks after the said part 19 is passed through the perforation 17^a. On the outer ends of the bell-crank levers 18 weighty handles 20 are hung, which are disposed so as to be easily reached by a pedestrian or a person in a vehicle or on horseback for manipulation when the gate is to be opened or closed.

The tumbling-lever 16 is loosely connected with the latch-rod 15 by a link 21, that has one end loosely secured to the nearest end of the latch-rod, and its opposite end connected in a like manner with one limb of the bell-crank lever 22, which is pivoted on and horizontally supported by the bracket-arm 23, that is secured to project from the gate 13, as shown in Figs. 1 and 2.

A bracket-lug 24 is secured on the side of the lever 16 about in the same horizontal plane with the bell-crank lever 22, and is thereto connected by the link-rod 25, that has its ends hooked into holes in the lug and nearest limb of the bell-crank lever mentioned, or otherwise loosely secured to these parts. The flexible connection 19 is stretched taut when the lever 16 is upright. Hence from the connection of parts intervening said lever and the latch-rod 15 the latter is slid into the po-

sition indicated by dotted lines in Fig. 2, when the tumbling-lever is inclined toward the latching-post 14, as shown in Fig. 1.

The operation of the improved gate is as follows: Assuming that the parts are in the relative positions shown in Fig. 2, the tumbling-lever 16 will then incline rearwardly and the slidable latch-rod 15 be drawn toward the rear edge of the gate. To close the passage or road way guarded by the gate 13 the operator pulls either weighty handle 20, which will rock the bell-crank lever it is attached to and draw on the single wire rope 19, so as to tilt the tumbling-lever 16 toward the latching-post 14. The lateral movement of the lever 16, as explained, will rock the bell-crank lever 22 so as to project the latch-rod 15 beyond the free side edge of the gate, and at the same time the gravity of the weighted upper end of the lever will compel the gate to swing on its hinges toward the latching-post 14, and the impact of the looped end 15^b on the lug 14^a will cause the latch-rod to recede sufficiently to pass over the lug. The weight 17 now inclines the tumbling-lever so as to stretch the wire cord or rope 19, and by the movement of the bell-crank 22 and its connections with the rod 15 slides the latter behind the lug 14^a, so as to lock the gate fast to the post 14. Preferably there is a stop-pin or other projection 14^b formed or secured on the post 14, opposite the lug 14^a, and so removed therefrom that the free upright bar 13^a on the gate 13 will be loosely held between said parts 14^a 14^b when the gate is closed. If the roadway is closed by the transverse disposition of the gate 13, as shown by dotted lines in Fig. 2, a pull on either weighty handle 20 will rock the tumbling-lever 16 rearwardly or away from the gate, and first produce draft strain on the latch-rod 15, so as to release it from the lug 14^a, the gravity of the weight 17 then pulling the gate open, so that it automatically assumes the position represented by full lines in Fig. 2.

In Fig. 3 there is a slight modification of the tumbling-lever shown, the lever 26 in this case having a loop or perforation 26^a in its upper end for the reception of the wire rope 19, there being a weight 27 hung on a rod 27^a, pivoted on the lever 26 below and near the perforation 26^a. In this modification the weight 27 serves to overpoise the lever 26 and cause the inclination thereof to open or close the gate 13 in substantially the same manner as does the weight 17, it being understood that the other working parts of the gate-operating mechanism are made similarly to those already described.

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

1. In a gate, the combination, with a supporting post and a latching post, of the gate hinged to the said supporting post, a weighted tumbler lever pivoted to said supporting post, the latch rod slidably mounted on the gate, the pivoted angle lever carried by the gate, a link connection between one member of the angle lever and latch rod, a link connection between the other member of the said angle lever and tumbler lever, the angle levers mounted on posts in line with the supporting post, the weighted handles on said angle levers, and the connection between said angle levers engaging loosely with the tumbler lever, substantially as specified.

2. The combination, with the supporting post and the latch post, of the gate hinged to the supporting post, the weighted tumbler lever, the latch rod slidably mounted on the gate and having one end turned around the upright at the free end of the gate, the means for imparting motion to the tumbler lever and connections between the latch rod and tumbler lever whereby said latch rod is moved in both directions by the said direct engagement with the tumbler lever, substantially as specfied.

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Witnesses:
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