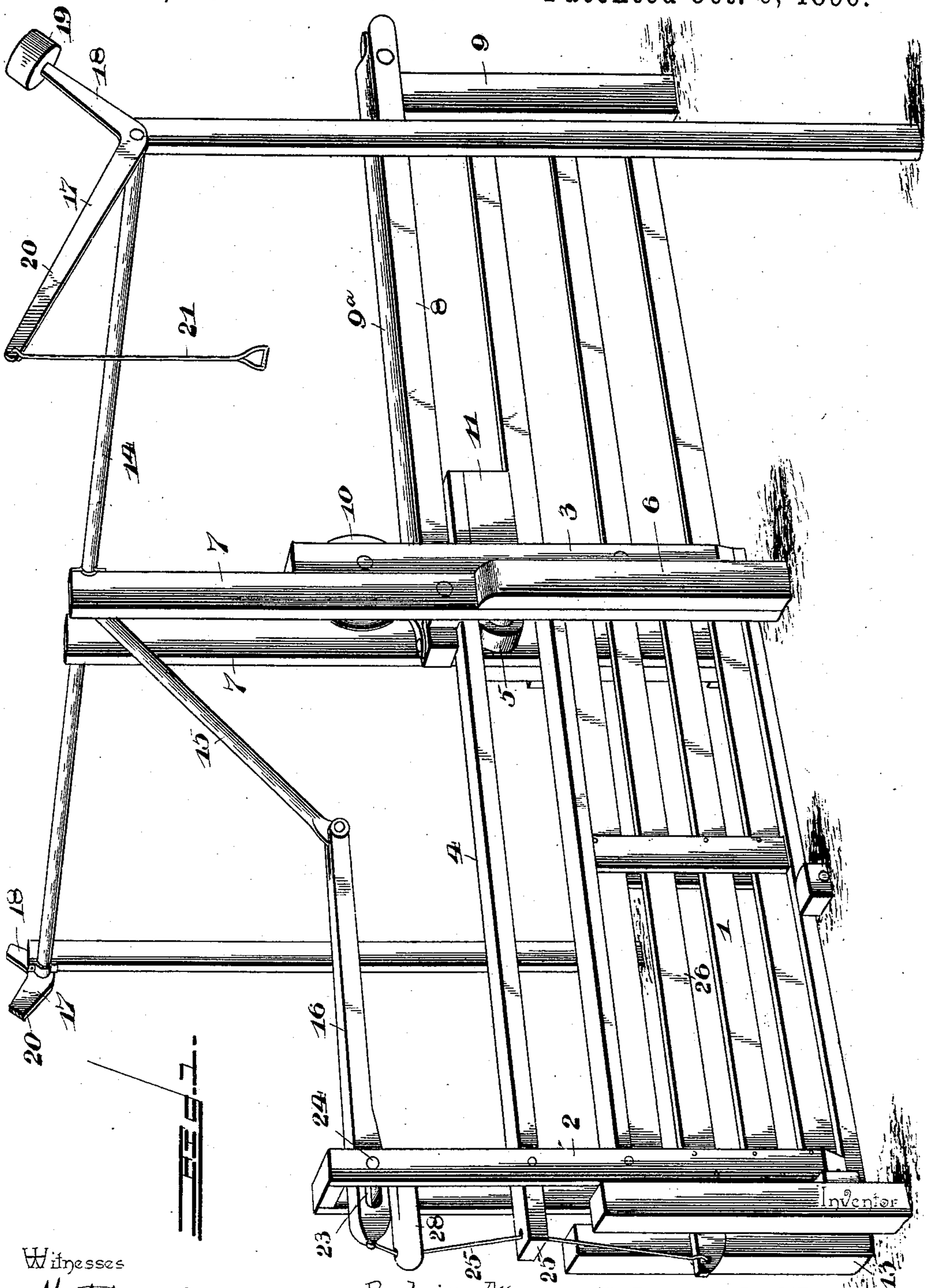
(No Model.)

2 Sheets--Sheet 1.

E. C. MOORE.

GATE.

No. 568,785. Patented Oct. 6, 1896.



Witnesses

W. T. Doyle.

J. F. Riley

By his Attorneys, Edson C. Moore,

C. A. Snow & Co.

(No Model.) 2 Sheets—Sheet 2.

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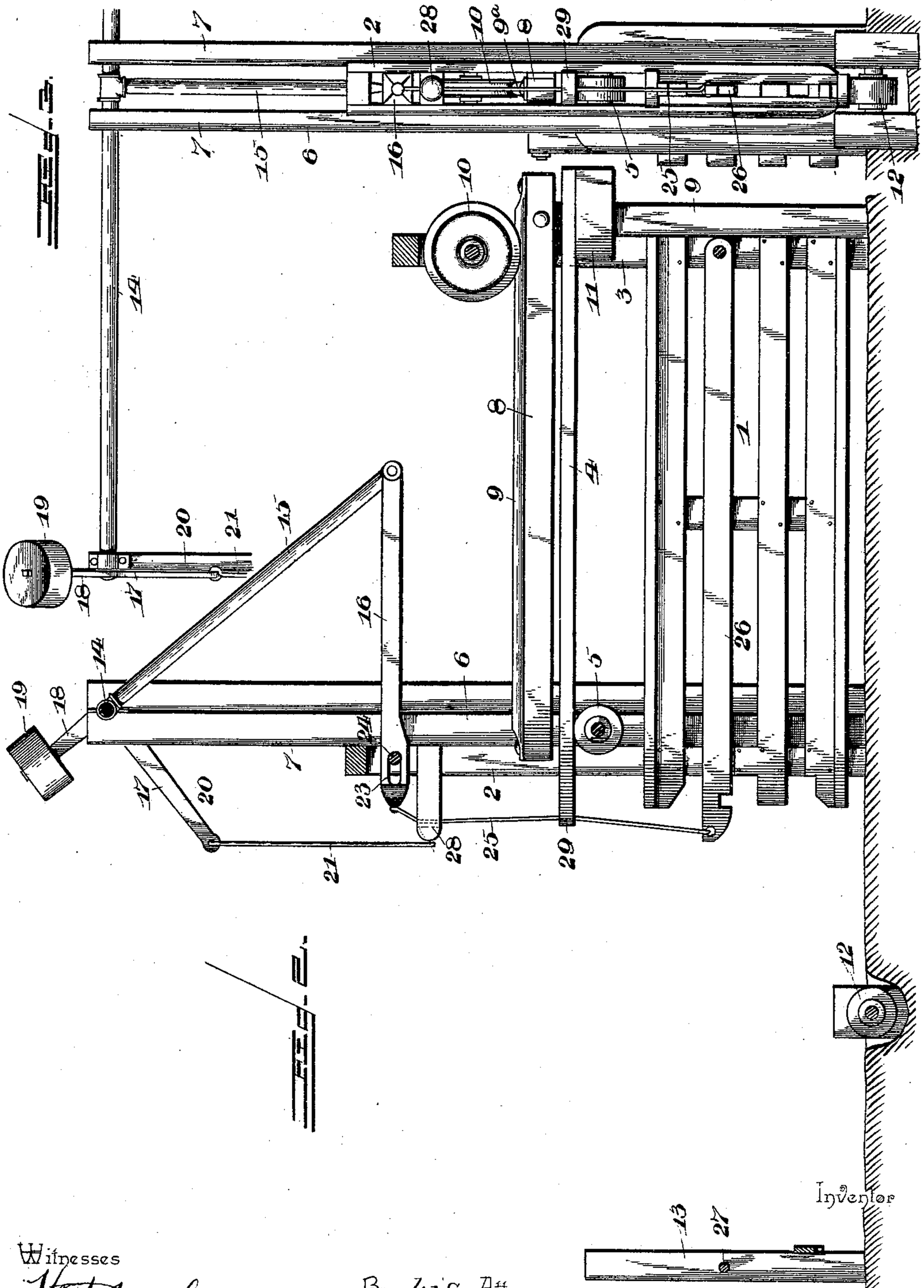

Witnesses
W. C. Doyle
H. C. Riley

By his Attorneys,
Edson C. Moore,
C. A. Snow & Co.

Inventor

UNITED STATES PATENT OFFICE.

EDSON C. MOORE, OF RIVERSIDE, IOWA.

GATE.

SPECIFICATION forming part of Letters Patent No. 568,785, dated October 6, 1896.

Application filed March 31, 1896. Serial No. 585,616. (No model.)

To all whom it may concern:

Be it known that I, EDSON C. MOORE, a citizen of the United States, residing at Riverside, in the county of Washington and State of Iowa, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

The object of the present invention is to improve the construction of sliding gates and to provide a simple, inexpensive, and efficient one which may be readily operated to open or close it at a sufficient distance from it to avoid dismounting or leaving a vehicle.

A further object of the invention is to provide a sliding gate which will require but a small amount of power to operate it and which will automatically complete its opening movement and be retained in its open position against any accidental closing.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention and shown closed. Fig. 2 is a longitudinal sectional view, the gate being open. Fig. 3 is a transverse sectional view of the same.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a sliding gate constructed of any suitable material and of any desired form and provided with front and rear end bars 2 and 3, disposed in pairs and extended above the gate and supporting a horizontal track-bar 4, which is arranged to run on a roller 5 of a supporting-frame 6. The supporting-frame, which preferably forms a portion of the adjacent fence, comprises a pair of uprights 7, disposed at opposite sides of the gate, a horizontally-disposed stationary track-bar 8, arranged above the track-bar 4 of the gate, and a post 9, supporting the rear end of the track-bar. The track-bar 8 is preferably provided with a metal rail or bar 9^a, and the rear end bars 3 of the gate are extended above the track-bar 8 at opposite sides thereof and have journaled between them a grooved roller 10, which is arranged to run on the track-bar and which is located above the same. The track-bar 4 of the gate is extended in rear thereof and is provided with a counterbalancing block or weight 11, which is adapted to prevent the front portion of the gate from sagging and which facilitates a free sliding movement of the same. A roller 12 may be arranged at the center of the gateway in the space between the uprights 7 and a pair of latch-posts 13 to receive the bottom of the gate, and this roller 12 will also prevent the front portion of the gate from sagging and will cause the gate to slide freely in opening and closing.

The gate is operated by a horizontally-disposed rock-shaft 14, journaled in suitable bearings at the top of the uprights 7 and extending from opposite sides of the gate a sufficient distance from the same in order to be operated from a vehicle or on horseback without the animals coming in contact with the gate. The rock-shaft is provided with a centrally-depending arm 15, arranged to swing between the uprights 7, and connected by a link-bar 16 with the front of the gate, whereby, when the rock-shaft is rotated, the sliding gate will be operated. The rock-shaft is provided at its ends with substantially L-shaped arms 17, secured to the ends of the rock-shaft at their angles and having their upwardly-extending portions 18, carrying weights 19, to assist or continue the opening movement of the gate after the depending arm of the rock-shaft has passed the uprights 7 or a vertical position, and also to hold the gate in its open position to prevent the same from accidentally closing. The other portions 20 of the L-shaped arms extend outward over the roadway, and are provided at their outer ends with depending handles 21, adapted to be grasped by the operator. The outer end of the rock-shaft is supported by suitable posts or uprights arranged adjacent to the L-shaped arms.

The link-bar 16 is provided at its front end with a slot 23, and is secured between the upper portions of the front bars 2 by a transverse pin 24, which passes through the slot 23. The pin 24 operates as a pivot and fulcrum for the link-bar, which is connected by a wire or cord 25, or other suitable connection, with the latch 26, and when the gate is

closed the first movement of the rock-shaft draws the link-bar rearward the length of the slot 23, which distance is sufficient to disengage the latch from the latch-post to release the gate to permit the latter to open. The latch 26 consists of a bar extending longitudinally of the gate, pivoted at its rear end to the same and provided at its front end with a notch adapted to engage a fastening device 27, or the like, disposed horizontally and connecting the latch-posts 13. The connecting wire or cord 25, which extends from the latch to the front end of the link-bar 16, passes through upper and lower guides 28 and 29. The upper guide consists of an arm secured to the end bars 2, extending forward from the gate in advance of the front end of the link-bar 16 and provided with a perforation, and the lower guide 29 consists of an extension of the track-bar 4 of the gate, and is provided with a perforation similar to that of the upper guide 28.

It will be seen that the sliding gate is simple and comparatively inexpensive in construction, that it is positive and reliable in operation, and that it is capable of being readily opened and closed without dismounting or leaving a vehicle.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. The combination of a supporting-frame, a sliding gate, a horizontal rock-shaft provided with an arm connected with the gate and adapted to actuate the same when the rock-shaft is rotated, and an L-shaped arm mounted at its angle on the rock-shaft, and having one portion extending upward and provided with a weight adapted to assist in the opening of the gate and capable of maintaining the latter in its open position, substantially as described.

2. The combination of a supporting-frame, a sliding gate, a horizontal rock-shaft journaled on the supporting-frame, located above the gate and provided with a central arm connected with and adapted to actuate the gate, and a pair of L-shaped arms mounted at their angles on the ends of the rock-shafts and provided with weights adapted to assist the opening of the gate and capable of maintaining the same in its open position, substantially as described.

3. The combination of a supporting-frame, a sliding gate provided at its front with upwardly-extending bars arranged in pairs, a guide projecting forward from the upwardly-extending bars, a link-bar 16 provided at its front end with a slot and arranged between the side bars and located above the guide, a fastening device passing through the slot and securing the lever to the bars, a latch mounted on the gate, a connection arranged in the guide and attached to the latch and the link-bar, and a rock-shaft journaled on the supporting-frame and having a depending arm connected with the rear end of the link-bar, substantially as described.

4. The combination of a supporting-frame having a track-bar 8, a sliding gate having front and rear end bars extended above it, a roller 10, located above the track-bar 8 and journaled between the rear end bars, a horizontal track-bar 4 carried by the front and rear end bars and extended beyond the same, the front end of the track-bar 4 forming a guide, a counterbalancing block or weight secured to the rear end of the track-bar 4, a roller 5 journaled on the supporting-frame and receiving the track-bar 4, a latch mounted on the gate, an upper guide extending from the end bars of the gate, a link-bar 16 pivotally connected to the front end bars and having a limited longitudinal movement, a latch connection extending from the latch to the front end of the link-bar and passing through said guides, and a rock-shaft journaled on the supporting-frame and provided with a centrally-depending arm connected with the rear end of the link-bar, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDSON C. MOORE.

Witnesses:

COL. NICOLA,

D. W. KICKMAN.