

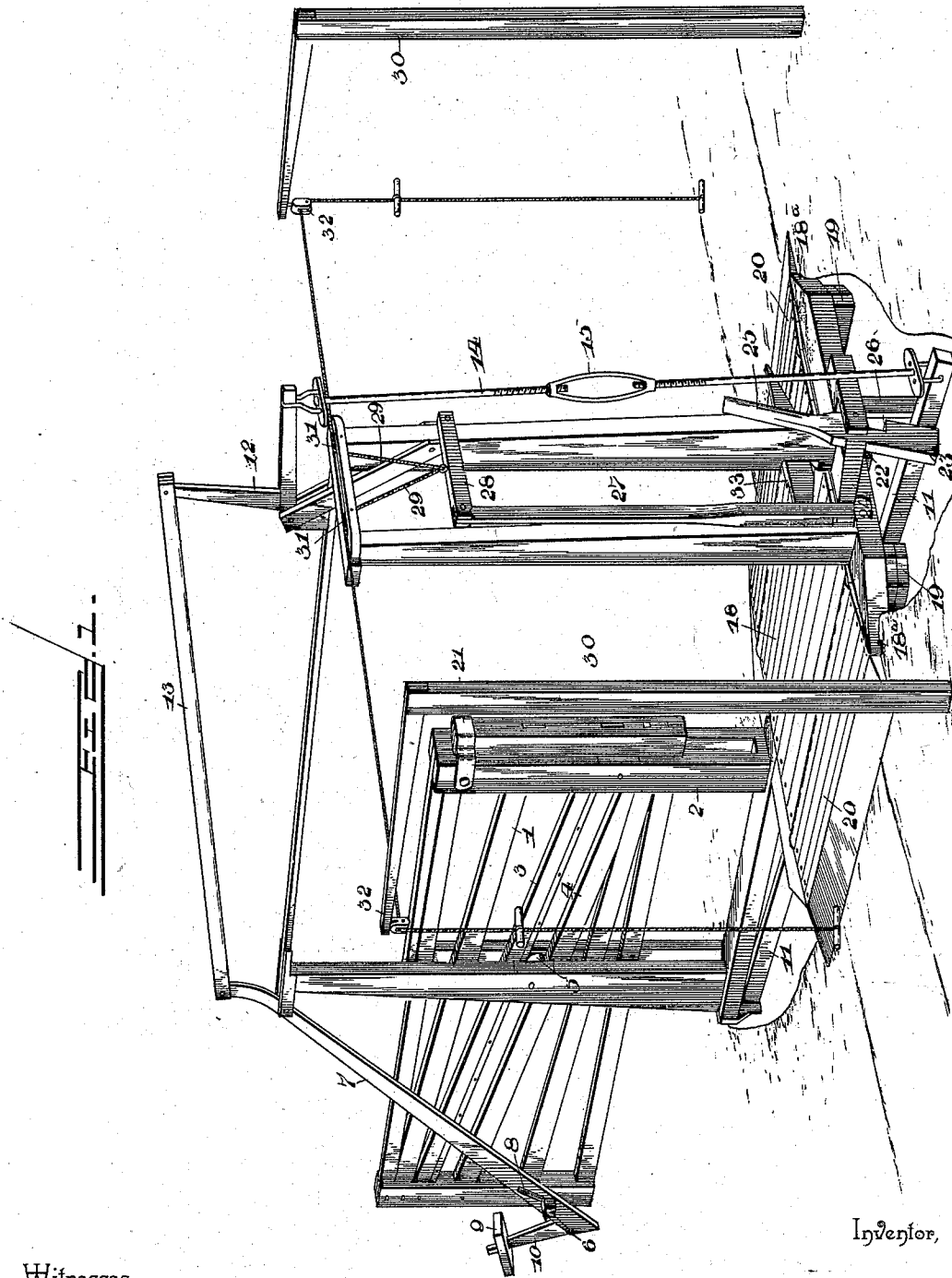
(No Model.)

2 Sheets—Sheet 1.

J. O. MOSS.
SLIDING GATE.

No. 560,860.

Patented May 26, 1896.



Inventor,

John O. Moss,

By his Attorneys,

Cashmore & Co.

Witnesses

W. F. Doyle
J. J. Riley

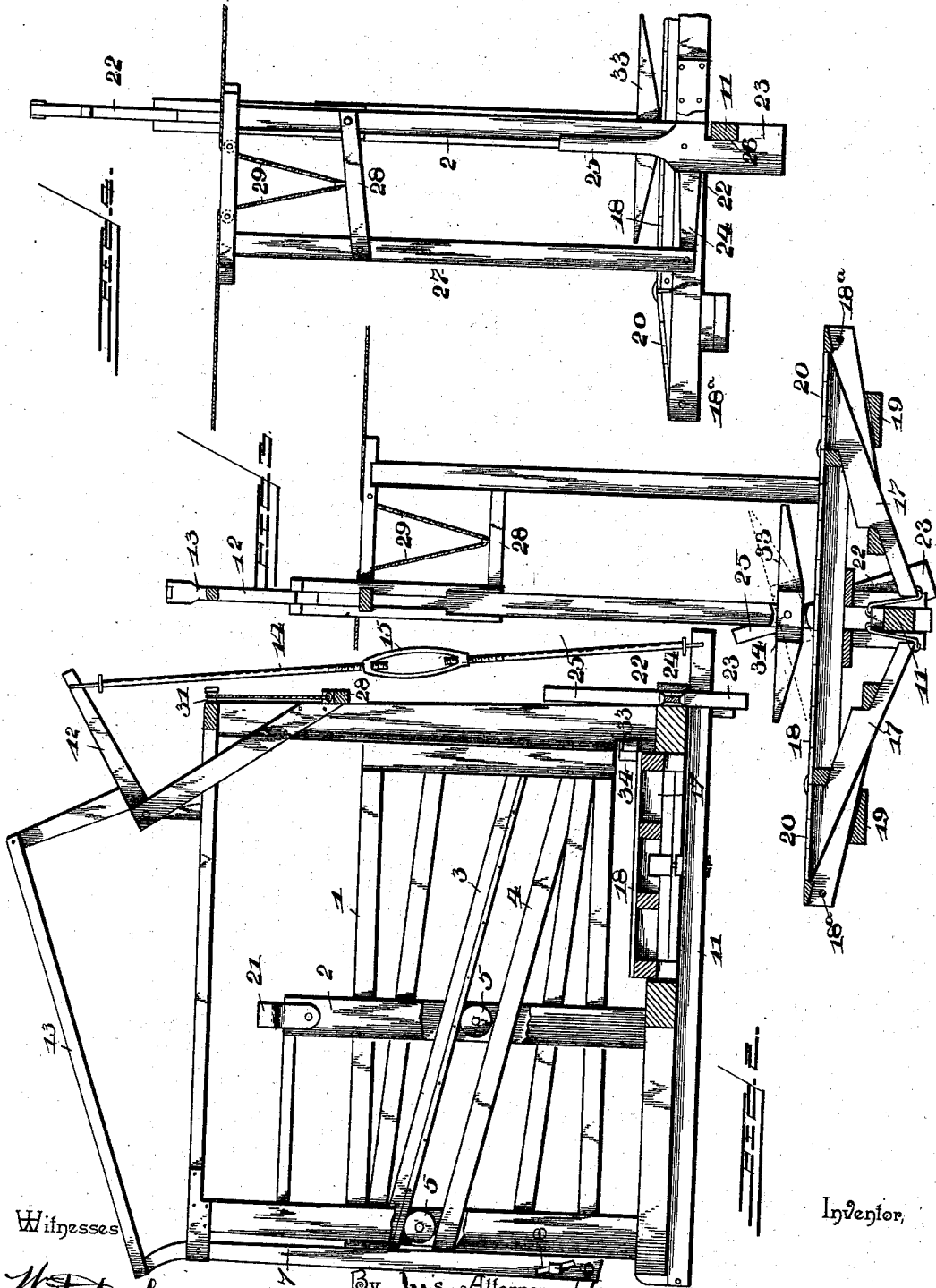
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UNITED STATES PATENT OFFICE.

JOHN O. MOSS, OF DELBA, TEXAS.

SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 560,860, dated May 26, 1896.

Application filed October 29, 1895. Serial No. 567,269. (No model.)

To all whom it may concern:

Be it known that I, JOHN O. MOSS, a citizen of the United States, residing at Delba, in the county of Fannin and State of Texas, have
5 invented a new and useful Sliding 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 will open automatically and close in a like manner after a person, team, or the like has passed through it.

15 A further object of the invention is to provide means whereby the gate will be prevented from being accidentally opened by stock.

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.

20 In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention. Fig. 2 is a vertical sectional view taken longitudinally of the gate. Fig. 3 is a transverse sectional view. Fig. 4 is a vertical sectional view illustrating the construction of the latch.

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

1 designates a sliding gate constructed of
35 any suitable material and mounted on a supporting-frame 2 and provided with parallel inclined track-bars 3 and 4, receiving between them rollers 5 of the supporting-frame, whereby, when the gate slides in opening, it will
40 rise and be adapted to close by gravity when free to do so.

The rear end of the gate is connected by a pin 6 with the lower end of an oscillating lever 7, which is fulcrumed near its upper end
45 on the supporting-frame at the top and back thereof, and which extends above the supporting-frame. The lower end of the oscillating lever is provided with a slot 8, in which is arranged the pin 6, and, as the lever 7 oscillates, the gate is opened or closed according to the direction in which the lever moves.

The automatic closing of the gate is assisted

by a weight 9, mounted on an arm 10, extending upward from the lower end of the oscillating lever and arranged at an angle
55 thereto. The gate is adapted to close by gravity, as before explained; but a sufficient weight is added to the lower arm 10 of the oscillating lever to compensate for any friction and to render the closing of the gate positive
60 and as rapid as desired.

Beneath the gate is arranged a substantially horizontal platform-lever 11, fulcrumed at its rear end on the supporting-frame or other suitable support and having its front
65 end connected with the upper end of the oscillating lever 7 by means hereinafter described, whereby, when the platform-lever is depressed by a person, animal, or other weight, the gate will be opened. A bell-crank lever
70 12 is fulcrumed at its angle on the supporting-frame and is located at the top thereof, and it has one arm connected with the front end of the platform-lever and its other arm connected by a bar 13 with the upper end of
75 the oscillating lever, and when the horizontal platform-lever is depressed the upper end of the oscillating lever is drawn forward, causing the lower depending portion to swing rearward to open the gate. The connection 14
80 between the forwardly-extending arm of the bell-crank lever 12 and the front end of the platform-lever is adjustable, being provided with a turnbuckle connection 15, whereby the levers may be adjusted to give the proper
85 swing to the gate.

At a point intermediate of its ends the horizontal lever 11 is connected with hinged frames 17, carrying a platform 18 and adapted to receive a person, animal, or other weight
90 and to be depressed by the same to effect the opening of the gate. The frames 17 are hinged at their outer ends at 18 between sills of the supporting-frame. They are provided at their inner ends with arms, which are connected with the lever 11, and the downward movement of the frame 17 is limited by transverse bars or beams 19. The said frames 17 are provided at their outer portions with platform-sections 20, and the platform 18 is located between the end sections 20.

The gate is held open to permit stock to pass through by a pivoted catch or keeper 21, mounted on the supporting-frame, which is

substantially U-shaped and adapted to be swung downward in front of the gate to form a stop for the same.

When the gate is closed, it is secured in that position by a T-shaped latch-lever 22, having a depending arm 23 to engage the lever 11, and laterally-extending arm 24, which is connected with operating mechanism, and a vertical arm 25, which forms a handle to enable the latch to be operated by a person on foot, the operating mechanism just referred to being for convenience of persons on horseback or in vehicles, as hereinafter described. The depending arm 23 of the latch-lever 22 is provided with a recess 26, forming a shoulder adapted to receive the front end of the horizontal lever 11 when the gate is closed and to lock the lever 11 against downward movement. The latch-lever is automatic in operation, the depending arm being of sufficient weight to swing automatically into engagement with the lever 11 as soon as the latter is raised by the closing of the gate. The laterally-extending arm 24 is connected by a bar 27 with a substantially horizontally-disposed lever 28, to which are connected operating-ropes 29, and the latter extend from the gate in opposite directions and depend from horizontal arms of uprights 30. Pulleys 31 and 32 are arranged, respectively, at the top of the supporting-frame and at the outer ends of the arms of the uprights 30 to cause a free movement of the operating-ropes, one of which, when it is desired to open the gate, is pulled and held by the operator until the horse or other animal steps upon the platform or upon the sections 20, and the gate starts to open. The gate will then continue to open and be maintained open by the weight on the platform, and after a rider or vehicle has passed through the gateway the gate will automatically close as soon as the platform is relieved of the weight.

When the gate is to be opened by a person on foot, the platform is conveniently depressed by a transversely-disposed operating-lever 33, fulcrumed on the supporting-frame adjacent to the center of the platform and having tapering arms and provided with a substantially rectangular enlargement 34, forming a shoulder and arranged to engage the platform. This transversely-disposed operating-lever 33 is adapted to be depressed at either side of the gate.

It will be seen that the gate is simple and inexpensive in construction and positive and reliable in operation, and that it is capable of opening and closing automatically, and that it cannot be accidentally opened by stock. It will also be seen that the gate may be readily maintained open when it is desired to permit stock to be driven through it.

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

What I claim is—

1. The combination of a supporting-frame, a sliding gate, an oscillating lever fulcrumed intermediate of its ends at the top of the frame, arranged at the rear end thereof and connected adjacent to its lower end to the gate, said oscillating lever projecting above the top of the frame, a bell-crank lever fulcrumed at its angle at the top and front of the frame and having its arms extending upward therefrom, a connecting-bar 13 located above the supporting-frame, and having one end pivoted to the upper end of the oscillating lever and its other arm similarly connected to the rear arm of the bell-crank lever, and a depressible platform connected with the other arm of the bell-crank lever, substantially as described.

2. The combination of a supporting-frame, a sliding gate mounted thereon, an oscillating lever fulcrumed on the supporting-frame at the back thereof and depending therefrom, and connected with the gate, a bell-crank lever fulcrumed at its angle on the supporting-frame at the top and front thereof, a bar connecting one of the arms of the bell-crank lever with the upper end of the oscillating lever, and a substantially horizontally-disposed platform-lever fulcrumed at its rear end on the supporting-frame, and having its other arm connected with the bell-crank lever, substantially as described.

3. The combination of a supporting-frame, a sliding gate mounted thereon, an oscillating lever fulcrumed intermediate of its ends at the top of the frame at the rear thereof and extending above the same, the lower end of the lever being connected with the gate, a rigid arm carried by the lever at the lower end thereof and extending rearwardly therefrom, a weight mounted on the rearwardly-extending arm, and operating mechanism connected with the upper end of the lever, substantially as and for the purpose described.

4. The combination of a supporting-frame, a sliding gate, a depressible platform-lever connected with and adapted to actuate the gate to open the same, and an automatically-operating catch arranged to engage the platform-lever when the latter is raised and adapted to lock it against downward movement, substantially as and for the purpose described.

5. The combination of a sliding gate, a platform-lever connected with and adapted to open the gate, a pivotally-mounted latch-lever provided with a shoulder and arranged to engage the platform-lever to lock the same against downward movement, and means for operating the latch-lever, substantially as described.

6. The combination of a sliding gate, a platform-lever connected therewith, a substantially T-shaped latch-lever provided on its depending arm with a shoulder and arranged to swing automatically in engagement with the platform-lever to lock it against downward movement and having its upwardly-extending arm forming a handle, and operat-

ing-ropes extending from the gate in an opposite direction and connected with a laterally-extending arm of the T-shaped lever, substantially as described.

5 7. The combination of a supporting-frame, a sliding gate, a platform-lever connected with the gate, the T-shaped latch-lever arranged to engage the platform-lever, a horizontal lever 20 fulcrumed on the supporting-
10 frame and connected with a laterally-extending arm of the T-shaped latch-lever, and operating-ropes extending from the gate in opposite directions and connected with the lever 20, substantially as described.

15 8. The combination of a sliding gate, a depressible platform connected with and adapt-

ed to open the gate, and a transversely-disposed operating-lever fulcrumed adjacent to one side of the platform, and extending from each side of the gateway and provided with 20 a centrally-engaging portion bearing against the platform, whereby the latter would be depressed when either arm of the operating-lever is forced downward, substantially as described. 25

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

JOHN O. MOSS.

Witnesses:

EDDIE THOMPSON,
R. T. MORRISON.