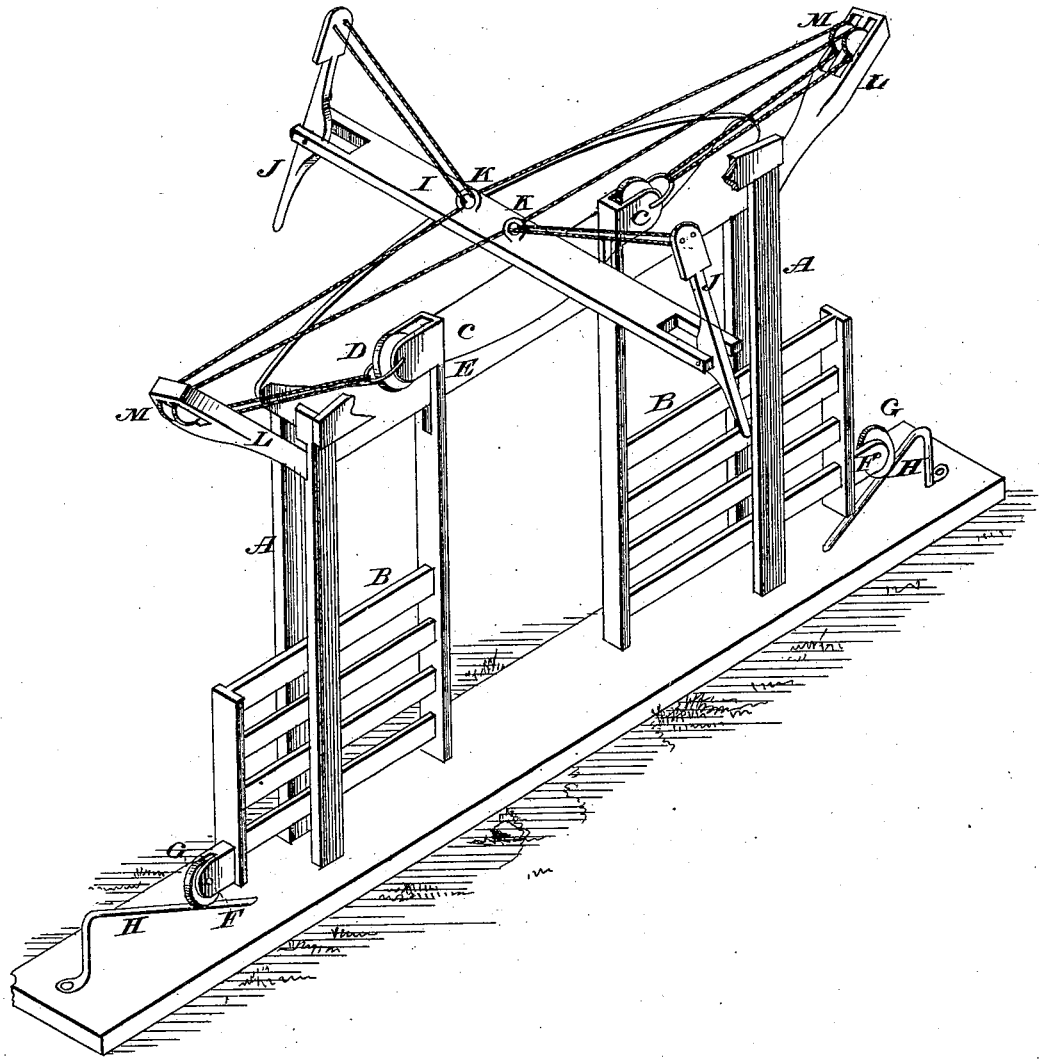
J. M. MENDENHALL.

Gate.

No. 205,565. Patented July 2, 1878.



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UNITED STATES PATENT OFFICE.

JAMES M. MENDENHALL, OF LIVERMORE, CALIFORNIA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **205,565**, dated July 2, 1878; application filed May 16, 1878.

To all whom it may concern:

Be it known that I, JAMES M. MENDENHALL, of Livermore, county of Alameda, and State of California, have invented an Improved Gate; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to certain improvements in the construction of gates; and it consists in the employment of two gates, which run upon oppositely-placed inclines, so that the gates may be separated and opened from their common center of meeting by running up these inclines. It also consists in the combination, with these gates and inclines, of a series of cords and operating-levers, whereby the gates may be simultaneously opened by the person approaching the gate from either direction, by operating the lever without leaving the vehicle or animal, and they may be retained open until the passenger has passed through the gates, when they will close automatically.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my gate.

Let A represent the frame-work of my gate, which is constructed so that the two gates B may each be slid back between the two parts of the side frames, as shown. At the inner end of each gate is an extension, C, formed by extending upward the two end pieces of the gate, and at the top of this extension is a grooved roller or pulley, D. Lengthwise across the frame-work A and between the two parts is secured the double-inclined guide E, on which the rollers D rest. This guide E passes between the two parts of the extensions C, so that the roller D rests on it, its lowest point being in the center, as shown.

On the lower outer end of each gate is a projection, F, carrying a grooved roller, G. Attached to the sill of the gate, and set on an incline toward it, is a rod, H, on which the roller G moves. These rods H are set on the same incline or angle that the guide E has from its center each way. The gates are then hung at one end by the rollers D, resting on the guide E, and the other end is supported by the roller G, resting on the inclined rod H.

Transversely across the top of the gate-frame, at its center, is the bar I, having slots in each end, as shown. Pivoted on the ends of this bar I, in the slots, are the handles or levers J, which extend outward from the bar I to a convenient distance for their outer ends to be taken hold of by any one in a wagon. The inner or shorter ends of the handles J extend toward the center of the gate. On this bar I, at the center and just over the position the rollers D occupy when the gates are closed, are two pulleys, K, for the purpose hereinafter described.

On the upper outer corners of each end of the gate-frame are secured two projections or arms, L, each having two grooved sheaves or pulleys, M, at their upper ends. A rope, N, is attached to the inner end of the levers or handles J, passes through the pulley K, over the pulley M, and is fastened to the upper end of the extension C, near the roller D, as shown. A rope, N, passes in this manner from each inner end of both hand-levers to each projection, so that when either lever is depressed at its outer end both gates will be drawn back.

The operation of my gates is as follows: When a team drives up to one side of the gate, the driver reaches up and takes hold of the outer end of the lever J and depresses it. In so doing he draws on the two ropes attached to the inner end of the lever, one of which passes each way from the center over the pulleys, as described, and has its other end attached to the upper end of the extension of the gate. As the team moves on the driver keeps hold of the lever, the gates meantime gradually moving back on their rollers and guides, as described. By the manner of pivoting the levers, as shown, the outer end of said lever may be held by the driver until he passes under the center of the gateway, thus drawing the gates back as far as necessary. Then, by releasing the lever, the gates, resting by the grooved rollers on the incline formed by the guides E and inclined projection F, will slide back into place by force of gravity and close tight. As there is a lever projecting on either side of the gateway, the gate

may thus be opened by a person coming from either direction.

The act of drawing the lever-arm down and drawing the gates back or open, in the manner described, rolls the gates up the inclines, so that they shut quickly by rolling down and back again as soon as the lever is released.

On farms considerable trouble is experienced by young animals following close behind a wagon going through the gate when they are not wanted. With this gate all such following animals will be kept in or out, as the case may be, since the gate closes so very quickly after the lever is released. The gates, on closing, overhaul the ropes again over the pulleys and draw the lever into position again for the next comer.

By this means I provide a simple method of opening and closing gates without the necessity of the driver getting out of the wagon, while at the same time there are no springs or cumbrous operating mechanism to get out of order, a lever opening the gates, which close by their own specific gravity at the proper moment.

The arrangement of my inclines for the pulleys, one above the gate, while the other extends outward from the rear end, causes the gate to be supported upon its pulleys at points diagonally opposite each other, and this insures a more perfect and accurate action than if the gate were supported in any other manner.

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

The gates A, provided at diagonal corners with rollers G D, cords K K, pulleys M M, and levers J J, in combination with the stationary paralleled pairs of inclined guides E, all constructed, arranged, and operated as set forth.

In witness whereof I hereunto set my hand and seal.

JAMES M. MENDENHALL. [L. S.]

Witnesses:
FRANK A. BROOKS,
CHAS. G. YALE.