

No. 860,875.

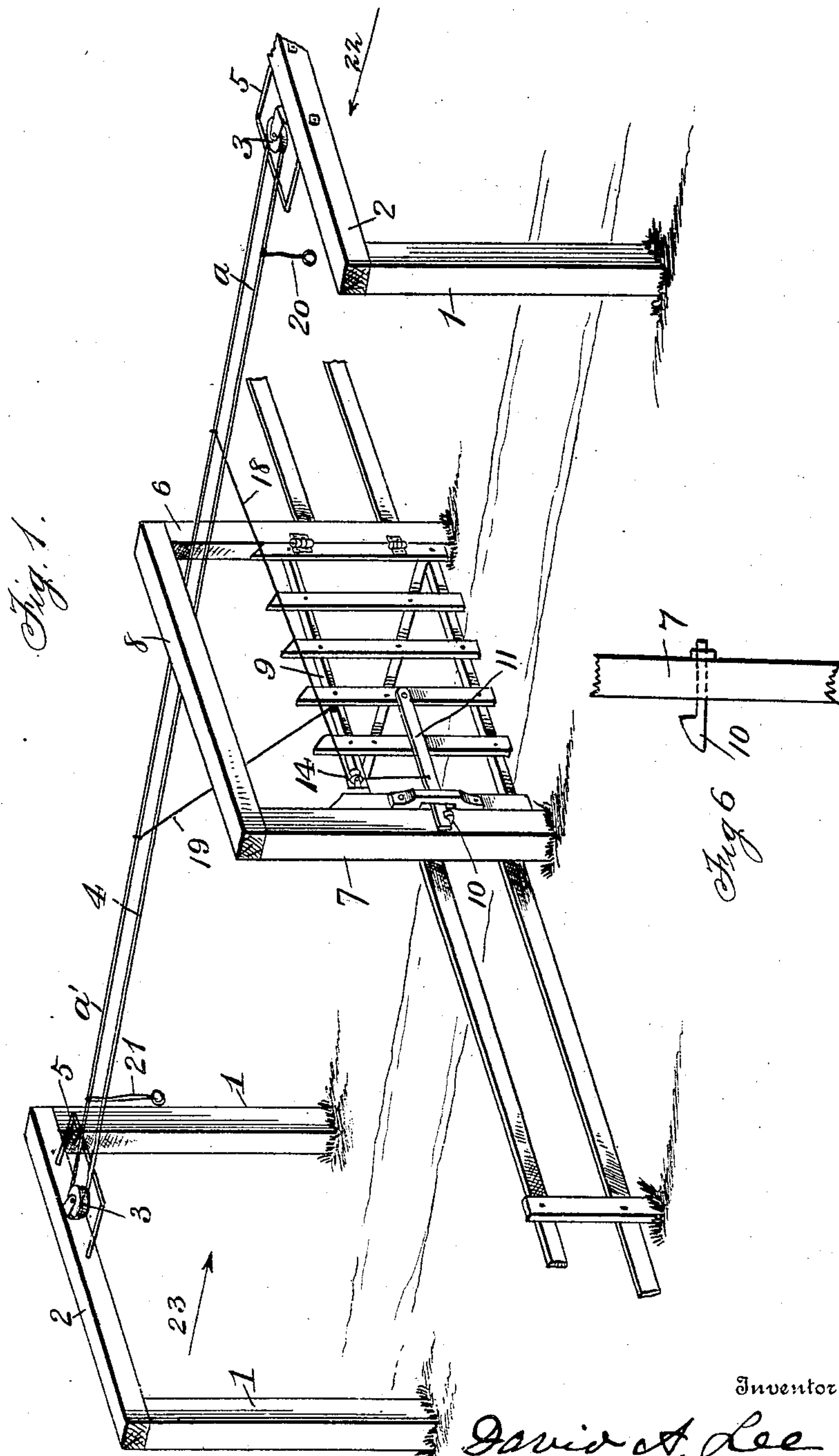
PATENTED JULY 23, 1907.

D. A. LEE.

DEVICE FOR OPENING AND CLOSING GATES.

APPLICATION FILED APR. 22, 1907.

2 SHEETS—SHEET 1.



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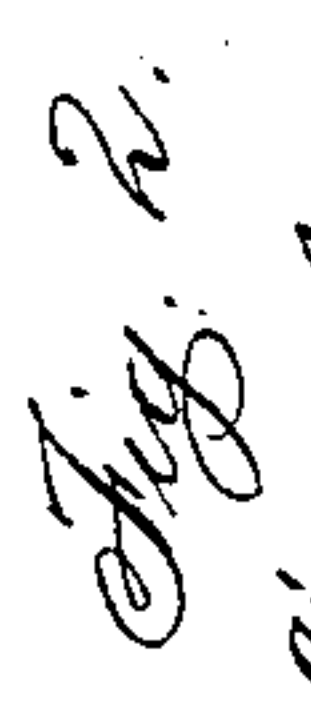
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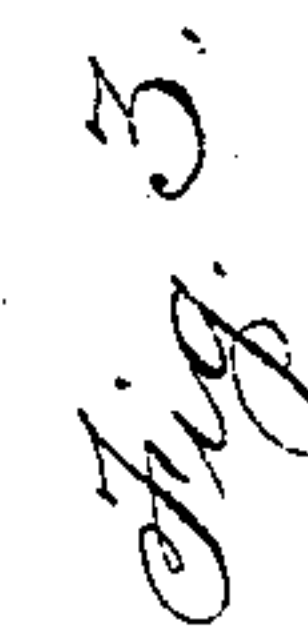
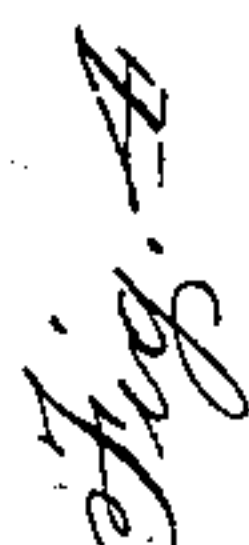
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UNITED STATES PATENT OFFICE.

DAVID A. LEE, OF ALBERTA, LOUISIANA.

DEVICE FOR OPENING AND CLOSING GATES.

No. 860,875.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed April 22, 1907. Serial No. 369,512.

To all whom it may concern:

Be it known that I, DAVID A. LEE, a citizen of the United States, residing at Alberta, in the parish of Bienville and State of Louisiana, have invented certain new and useful Improvements in Devices for Opening and Closing Gates, of which the following is a specification.

My invention is a device for opening and closing gates, and consists in uprights erected on each side of the road and each side of the gate, supporting cross-beams, an endless cable passing over pulleys secured in said cross-beams, cords attached to said endless cable, and chain and hand-holds secured to said cable; said cable to be operated and thereby open and close the gate.

In the accompanying drawings, Figure 1, is a perspective view of my invention. Fig. 2, is a top plan view. Fig. 3, is a view of the gate and its attachments. Fig. 4, is a perspective view of a bearing, carrying a pulley. Fig. 5, is a detail view, showing part of the gate, and a coil spring that operates the latch. Fig. 6, is a detail view, showing part of the latch-post and the latch-keeper.

My invention is described as follows:—The numeral 1, represents the four road-posts, two on each side of the road and each side of the gate; these posts are some distance from the gate, say from 50 to 60 feet, for the purpose of giving room for the cable to be properly operated. On the top of these road-posts are cross-beams 2. Secured to the inner faces of these cross-beams are pulleys 3, and working around these pulleys from cross-beam to cross-beam is an endless cable 4, and secured in these cross-beams and extending forward are supports 5. About half way between said posts 1, is located a gate frame, consisting of the hinge-post 6, latch-post 7, and top beam 8, and hinged to the hinge-post is a gate 9. Secured to the latch-post 7, is a latch keeper 10. Secured to one of the upright slats and to the outer face of the gate, is hinged a latch 11, and secured to the upper horizontal rail 12, and to the outer side of the gate, is a spool-bearer 13, in which is journaled a spool 14; the plate of said spool-bearer is provided with a perforated flange 15, that stands at right angles to said plate, the perforation being immediately under the spool. Secured to one of the upright slats of the gate is a spring 16, which rests on the upper edge of the latch and holds it down, but instead of using the spring 16, as shown in Fig. 3, I may use a coil spring 17, securing the upper end thereof to the latch, and the lower end to the lower horizontal beam of the gate. Secured on one side of the gate to the latch is one end of a cord 18, the other end being secured to the endless cable; this cord passes up through the perforation in the flange 15, thence under the roller 14, thence to the endless cable. Another cord 19, has one end secured to the other side of the gate, and its other end to the

endless cable. Suspended from the near part of the cable *a*, is a hand-hold 20, and suspended from the further part *a*¹, of the cable is another hand-hold 21.

The purpose of this gate is to enable persons on horse-back or in vehicles of any kind, or the drivers of wagons, to open and close the gate without dismounting.

The operation of my invention is evident, but a brief description of its operation may not be out of place:—We will suppose this gate to be at the entrance of a field, or the drive-way of a residence, and that the rider is approaching the outside of the gate, in the direction of the arrow 22; he takes hold of the hand-hold 20, and pulls it along with him as he approaches the gate, and this pulls the far part of the cable *a*¹, outwardly, operates the cord 18, raises the latch and opens the gate. This operation brings the hand-hold 21, near the gate frame, and as soon as the rider passes through the gate he takes hold of said hand-hold 21, and carries it along with him; this has the effect of drawing the cord 19, in that direction and closing the gate. Now, we will suppose the rider is approaching the gate from the inside of the field, in the direction of the arrow; he takes hold of the hand-hold 21, and this operates the part *a*¹, of the cable, the cord 18, and opens the gate, and after he passes through the open gate he takes hold of the hand-hold 20, and carries it along with him; this has the effect of operating the cord 19, and closing the gate. Thus it will be seen that the rider can make no mistake. All he has to do is to take hold of one of the hand-holds and pull it with him in the direction he is going.

The purpose of the supports 5 is to keep the endless cable 4, from sagging and running off of the pulleys 3, but by drawing the cable quite tight, and making the grooves in the pulleys quite deep, I may dispense with the supports.

The purpose of the perforated flange 15, which extends from the lower end of the spool-bearer 13, is to hold the cord 18, in the groove of the spool, but I may dispense with said perforated flange by making the groove of the spool quite deep, and for ordinary purposes, where the latch 11, of the gate is quite heavy, I can even dispense with either one of the springs 16 or 17, but for greater safety I prefer to use one of the springs.

Although I have specifically described the combination, construction and arrangement of the several parts of my invention, I do not confine myself particularly to such specific combination, construction and arrangement, as I claim the right to make such changes and modification therein as may clearly fall within the scope of my invention, and which may be resorted to without departing from the spirit, or sacrificing any of my patentable rights therein.

The drawings, for the want of space, do not show the posts 1, as far apart as they may actually be set, in prac-

tice, and they are not as tall as they relatively may be made. The said posts 1, may be as tall as the manufacturer desires to make them, and the posts 6 and 7, may be equally as tall, so that loaded wagons, and vehicles with tops, may pass under the cross-beams, in which case the hand-holds may be long enough to come down within reach.

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

- 10 1. The combination of the posts 1, situated on each side of the road and gate; hinge-posts 6, and latch-post 7, situated, one on each side of the road; cross-beams 2, secured on the top of said posts 1, and top beam 8, secured on the top of posts 6 and 7; pulleys 3, secured to the inner faces
- 15 of said cross-beams; supports 5, secured to the inner faces of said cross-beams; endless cable 4, working around said pulleys and over said supports; a gate 9, hinged to said hinge-post 6; a latch-keeper 10, secured to latch-post 7; a latch 11, hinged to one of the upright slats of said gate
- 20 and adapted to catch in said latch-keeper; spool-bearer 13, secured to the upper horizontal beam 12, of the gate, and immediately over said latch; a perforated flange 15, extending at right angles from the plate of said spool-bearer; a spool 14, journaled in said spool-bearer; a cord 18, having one end secured to said latch on one side of the gate,
- 25 passing thence up through the perforation in the flange 15,

thence to the endless cable 4; a cord 19, one end secured to the other side of the gate and the other to said cable 4; hand-holds 20 and 21, suspended from said cable, and a spring adapted to hold said latch down, substantially as shown and described and for the purposes set forth. 30

2. The combination of the posts 1, situated, one on each side of the road and gate; posts 6 and 7, situated, one on each side of the road; cross-beams 2, secured on the top of posts 1; pulleys 3, secured to the inner faces of said cross-beams; endless cable 4, working around said pulleys; gate 9, hinged to said post 6; latch-keeper 10, secured to post 7; latch 11, hinged to said gate and adapted to catch in said latch-keeper; a spool 14, journaled in bearings secured to said gate immediately over said latch; a cord, 40 passing behind said spool and having one end secured to said latch on one side of the gate, and the other to said endless cable; a cord 19, one end secured to the other side of the gate, and the other to said cable, said cable and cord adapted to open and close said gate, and hand-holds 45 20 and 21, suspended from said cable, substantially as shown and described and for the purposes set forth.

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

DAVID A. LEE.

Witnesses:

B. F. ROBERTS,
W. J. MURPHY.