

(No Model.)

J. SIMPSON.
GATE.

No. 547,299.

Patented Oct. 1, 1895.

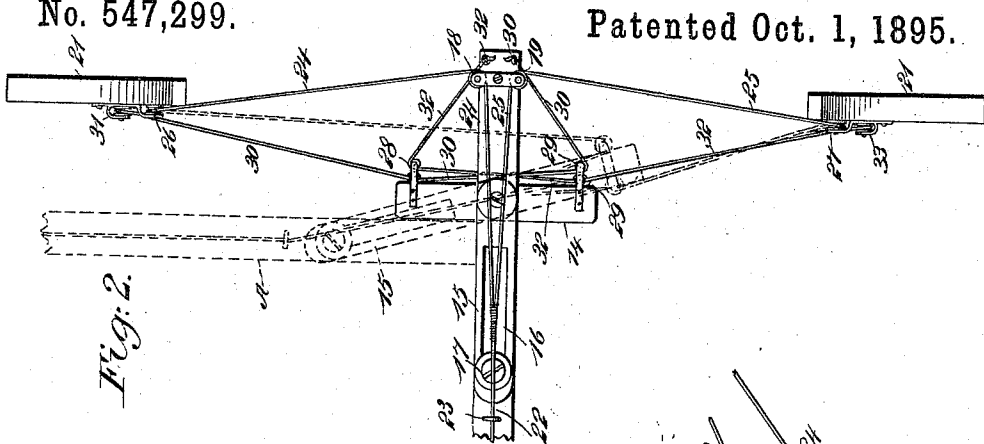


Fig. 2.

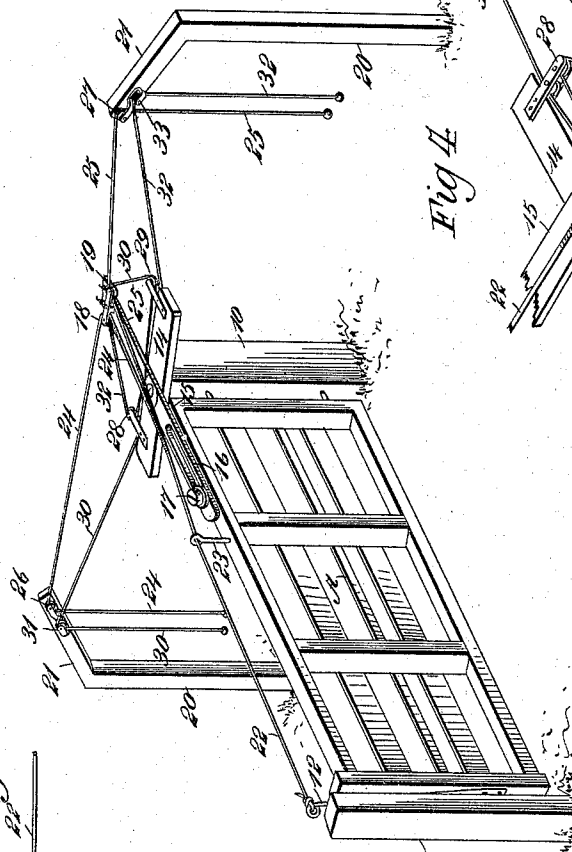


Fig. 1.

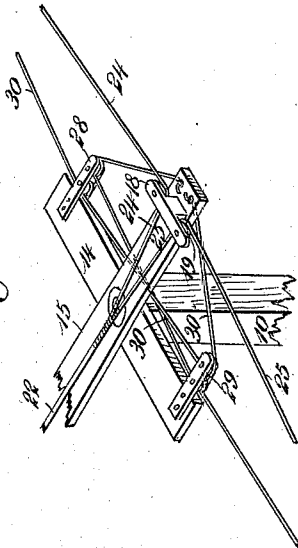


Fig. 4.

Fig. 5.

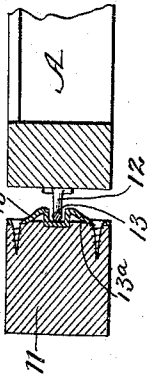
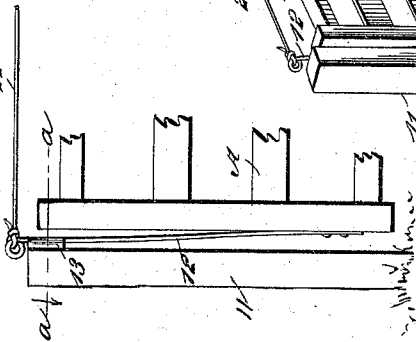


Fig. 3.



WITNESSES:
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JAMES SIMPSON, OF VEEDERSBURG, INDIANA, ASSIGNOR OF ONE-HALF TO
WILLIAM H. MALLORY AND EDDIE E. WADE, OF SAME PLACE.

GATE.

SPECIFICATION forming part of Letters Patent No. 547,299, dated October 1, 1895.

Application filed January 4, 1895. Serial No. 533,855. (No model.)

To all whom it may concern:

Be it known that I, JAMES SIMPSON, of Veedersburg, in the county of Fountain and State of Indiana, have invented a new and Improved Gate, of which the following is a full, clear, and exact description.

My invention relates to an improvement in gates, and especially to an improvement in means for opening and closing gates.

The object of the invention is to provide an opening and closing device for swinging gates so constructed that a gate may be opened and closed from the same side, or from either side of the gate, and whereby the mechanism employed to accomplish this result will be exceedingly simple, durable, and economic.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a perspective view of a gate and the opening and closing mechanism connected therewith. Fig. 2 is a plan view of a portion of the gate and of the mechanism for manipulating the same, illustrating the gate as in closed position in positive lines, and in dotted lines as in an open position. Fig. 3 is a detail view of the latch. Fig. 4 is a detail perspective view taken from the rear of the gate, illustrating the manner in which the cables or ropes used in manipulating the gate pass one another; and Fig. 5 is a horizontal section on line *a a* of Fig. 3.

In carrying out the invention the usual swing-post 10 is provided, and a keeper-post 11 for the gate A, which latter may be of any approved construction. Any form of latch may be employed for locking the gate to the keeper capable of being withdrawn from the keeper to unlock the gate. The latch illustrated is shown particularly in Fig. 3, and comprises spring-plate 12, secured to the front portion of the forward or free end of the gate, the said plate being provided with a head 13 to enter the keeper 13^a in the keeper-post 11. A cross-bar 14 is rigidly secured to the top

portion of the swing-post 10 of the gate, extending beyond opposite sides of the said post, as shown in Figs. 1 and 2, and upon the central portion of this cross-bar a lever 15 is horizontally fulcrumed, the pivot of the lever being preferably placed between the said center and its rear end, the forward portion of the lever having a longitudinal slot or opening 16 made therein, which receives a stud 17, firmly attached to the top of the gate and provided with a friction-roller.

At the rear end of the lever two pulleys 18 and 19 are placed, one at each side, and at opposite sides of the gate standards 20 are erected, each having an inclined or horizontal member 21 at or near its upper end extending in direction of the gate and its swing-post. A rod 22 is secured to the upper end of the latch 12, and this rod is carried rearward over the gate, usually through a guide 23 located on the gate, and at the rear end of this rod two cables, designated, respectively, as 24 and 25, are secured. The cable 24 is carried over the pulley 18 and to one side of the gate over a pulley 26, secured upon the extension of the standard 20 at that side, while the cable 25 is carried over the pulley 27, secured upon the extension of the opposite standard 20. A double pulley is located at each end of the cross-bar 14, upon the back thereof, one pulley being designated as 28 and the other as 29. A cable 30 is secured to the rear end of the gate-lever 15 at one side—for example, the right-hand side—and this cable is carried over the right-hand double pulley 29, along the back of the cross-bar and in engagement with the left-hand pulley 28. From thence the cable 30 is carried over the pulley 31, located upon the upright receiving the latch-cable 24. A second lever-cable 32 is secured to the left-hand side of the rear end of the gate-lever, and it is passed first over the double pulley 28, then in engagement with the double pulley 29, from whence it is passed to the pulley 33, located upon the standard carrying the latch-cable 25.

In the operation of this gate a person on either side of the gate, by drawing downward on the latch-cable, first disengages the latch and then swings the gate outward. The gate is closed from the same side by drawing down-

ward on the lever-cable. If a person is on the right-hand side of the gate and desires to admit cattle—for example, at the left-hand side of the gate—the gate can be opened inward by first disengaging the latch by drawing on the right-hand latch-cable 25, and then drawing downward upon the right-hand lever-cable 32. Drawing from the left-hand side of the gate-lever will open the gate to the right, and by then drawing downward upon the right-hand latch-cable, which will draw from the right-hand side of the gate-lever, the gate will be closed. After the latch has been disengaged by pulling on the latch-cable, the gate can be readily opened toward the operator by exerting tension on the lever-cable while holding on to the latch-cable.

It is evident that in addition to opening and closing the gate from the same point it may likewise be opened from one side away from the person by drawing downward upon the right-hand latch-cable 25, and closed from the left-hand side by drawing downward upon the left-hand latch-cable. The latch-cables open the gate in a direction from the person manipulating them and likewise close the gate, while the auxiliary cables 30 and 32 serve to open the gate in direction of the person operating said cables, when the latch is disengaged, and also serve to close the gate, both cables opening the gate from one side and closing it from the other.

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

1. The combination with a gate, its swing post and a lever fulcrumed upon the swing post and extending rearwardly therefrom, the said lever extending over the gate and having sliding connection therewith, of a cable connected with the rear end of the gate lever and a second cable also connected with the rear end of the gate lever and having a bear-

ing upon a fixed support at the opposite side of the lever to that at which the first cable is connected the said cables leading in the same direction and when tension is applied thereto exerting force in opposite directions upon the said lever, whereby the said gate from one side may be swung either away from or toward the operator, substantially as described.

2. The combination with a swing gate, its latch and swing post, and a lever fulcrumed near its rear end upon the post and having a sliding connection at its opposite end with the gate, of a cable connected with the latch and having a bearing on one side of the lever at the rear of its fulcrum, and a second cable connected with the lever at the rear of its fulcrum and having a bearing upon a fixed support at the opposite side of the lever to that toward which the latch cable is carried, the two cables being led in the same direction, substantially as shown and described.

3. The combination with a swing gate, a gate post provided with a cross head, the latch of the gate, a lever fulcrumed upon the gate post, extending forward and rearward beyond the cross head, said lever having a sliding connection with the gate, and guide standards at opposite sides of the said gate, of a cable attached to the latch and forked at the rear of the latch, the forks of the said cable passing through guides at the rear of the gate lever, and to opposite guide standards, and a pair of cables attached to the rear of the said lever, the latter cables being passed from the levers in opposite directions through guides near the ends of the said cross head and thence carried to their respective guide standards, as and for the purpose set forth.

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Witnesses:

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