

No. 775,756.

PATENTED NOV. 22, 1904.

M. K. LEWIS.
AUTOMATIC GATE.

APPLICATION FILED FEB. 16, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

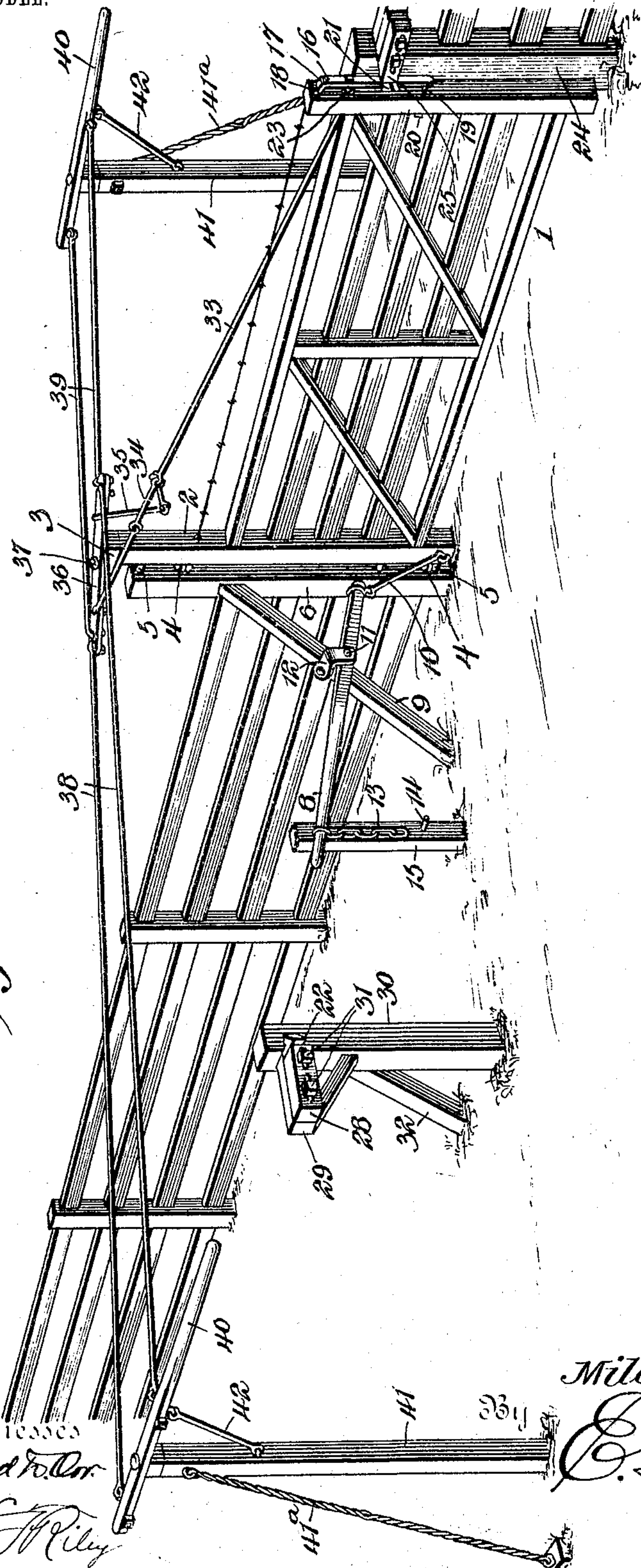
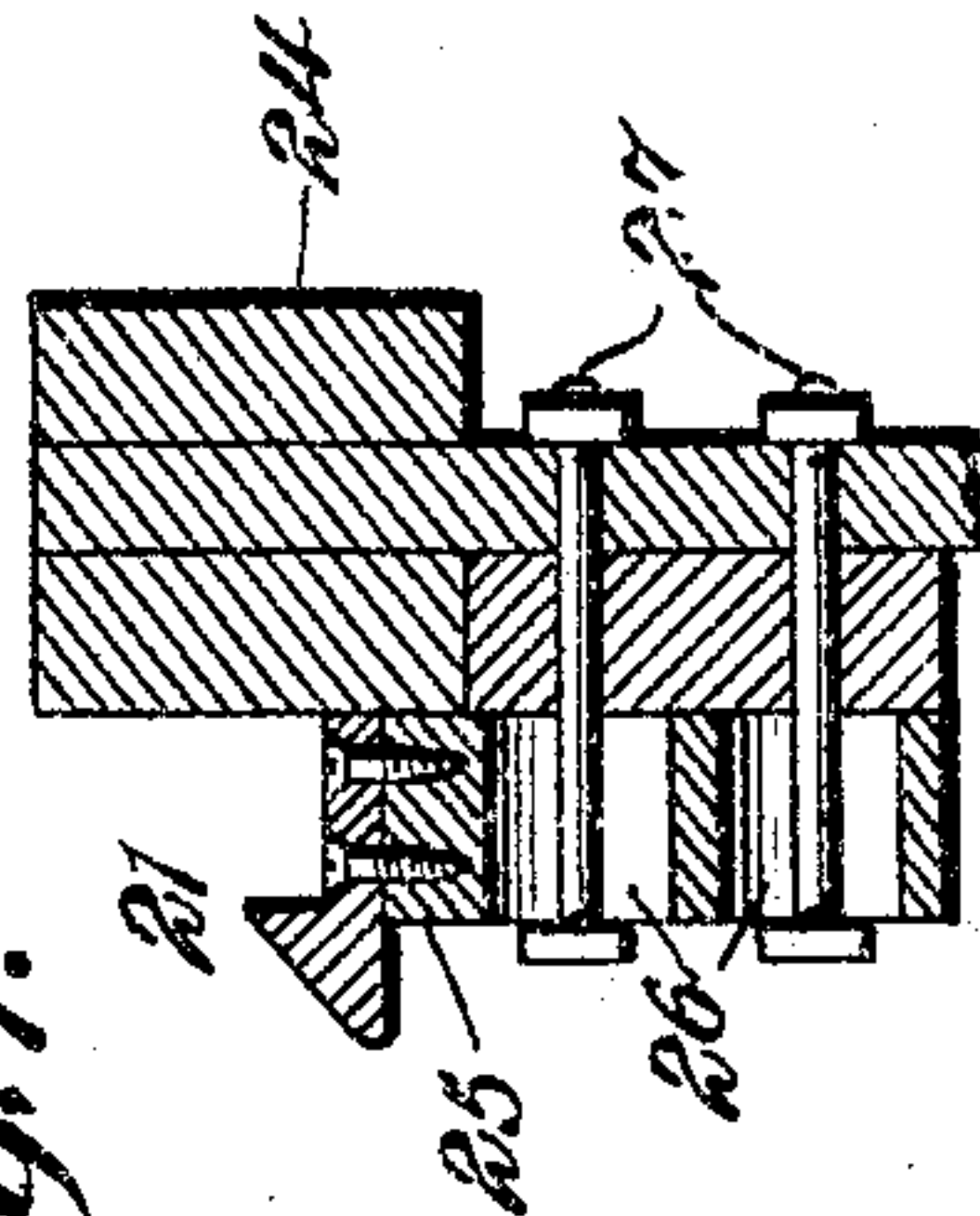


Fig. 7.



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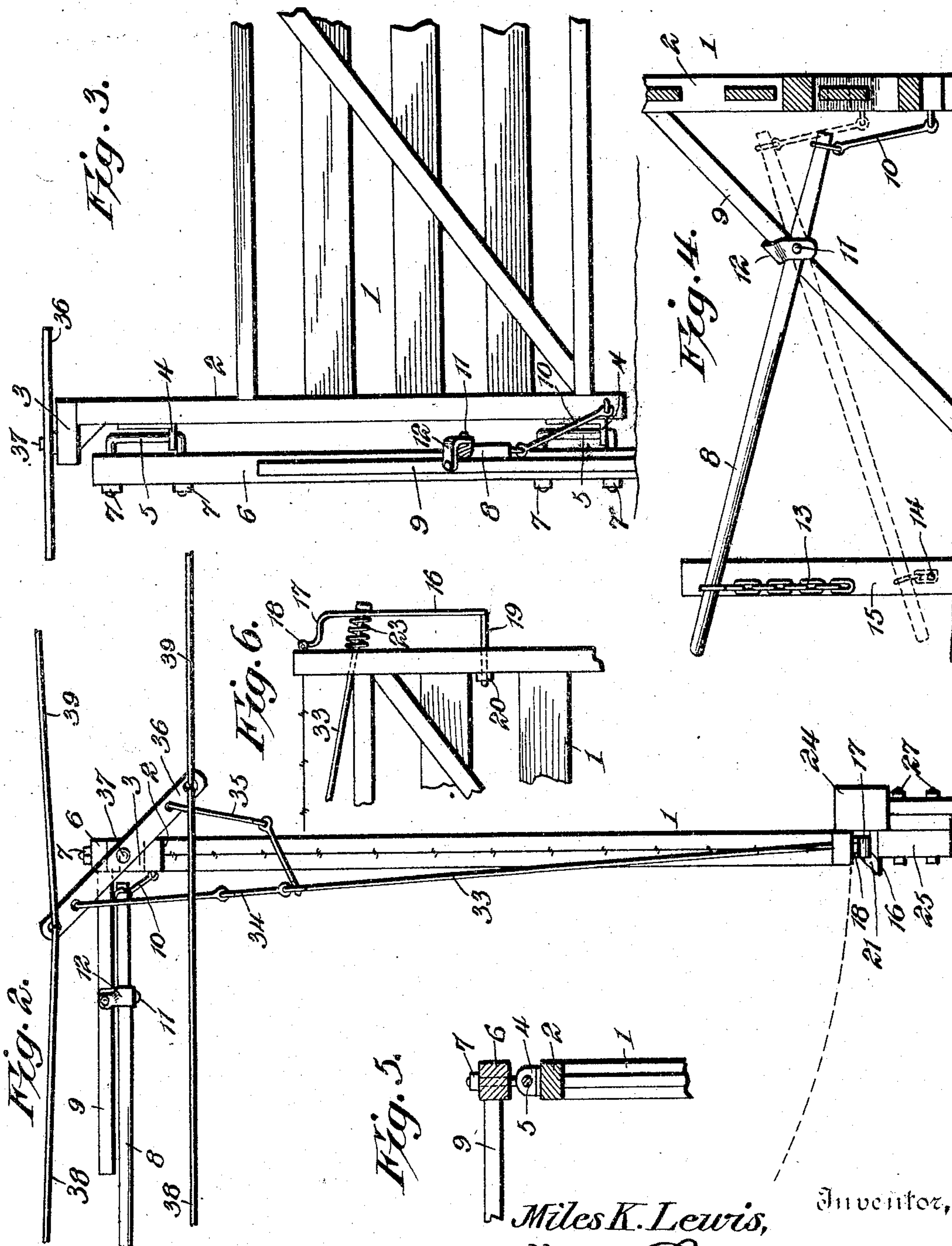
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

MILES K. LEWIS, OF LOMPOC, CALIFORNIA.

AUTOMATIC GATE.

SPECIFICATION forming part of Letters Patent No. 775,756, dated November 22, 1904.

Application filed February 16, 1904. Serial No. 193,846. (No model.)

To all whom it may concern:

Be it known that I, MILES K. LEWIS, a citizen of the United States, residing at Lompoc, in the county of Santa Barbara and State of California, have invented a new and useful Automatic 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 gates, and more especially the means for operating the same, and to provide a simple, inexpensive, and efficient construction capable of enabling a swinging gate to be opened and closed at a distance from either side of it by a person on horseback or in a vehicle.

A further object of the invention is to provide a gate of this character adapted for use in stock-yards, on farms, and various other places and capable of being adjusted vertically to permit it to swing clear of snow-drifts and other obstructions and to provide a passage for sheep, hogs, or other small animals.

With these and other objects in view 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, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a gate provided with operating mechanism constructed in accordance with this invention and shown closed. Fig. 2 is a plan view of the gate, showing a portion of the operating mechanism. Fig. 3 is a side elevation of the rear portion of the gate, illustrating the manner of mounting the same on the hinge-post. Fig. 4 is a detail view, partly in section, illustrating the construction for raising and lowering the gate. Fig. 5 is a detail sectional view illustrating the construction for hinging the gate. Fig. 6 is a detail view

of the latch. Fig. 7 is a detail view of the adjustable keeper.

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

1 designates a swinging gate which may be of any preferred construction and which is provided at its inner or rear end with an extended end bar 2, projecting upward from the top of the gate and provided at the top with a rearwardly-extending portion 3. The gate is provided with upper and lower eyes 4, consisting, preferably, of angle-plates having projecting portions provided with perforations for the reception of pintles 5 of a hinge-post 6. The pintles 5 are elongated and are provided with upper and lower arms, and the latter pierce the hinge-post and are provided with nuts 7 or other suitable fastening devices for securing the pintles to the hinge-post. The pintles permit the gate to be adjusted vertically to enable the same to swing clear of snow-drifts and other obstructions and also to afford a passage-way for small animals, such as sheep and hogs. The upper and lower arms of the pintles form stops for limiting the vertical movement of the gate, and the latter may be provided with wooden boxes or any other form of hinge member for cooperating with the elongated pintles.

The gate is adjusted vertically by means of a lever 8, fulcrumed between its ends on an inclined brace 9 and connected at its inner end with the bottom of the gate by a rod 10. The rod, which forms a link, is provided at its ends with eyes for engaging eyes of the lever and the gate; but any other suitable means may be employed for movably connecting the inner end of the lever with the gate. The brace 9 is inclined and is secured at its upper end to the hinge-post. The pivot 11 of the lever 8 is supported by a strap or bracket 12, secured to the brace above the lever and extending downward to the outer portion of the pivot. The outer end of the lever is provided with a chain 13, the links of which are adapted to engage a pin or projection 14 of a post 15, arranged contiguous to the outer end of the lever. By engaging the

links of the chain 13 with the pin 14 the gate may be secured in its adjusted position.

The gate is provided at its front end with a spring-actuated latch 16, consisting of an upright metal bar or piece bent at its upper end to form an arm 17, as clearly shown in Fig. 6, and hinged at its upper terminal 18 to the front end bar of the gate. The lower end of the latch is provided with an approximately horizontal arm 19, which extends through an opening of the end bar and which is provided at the inner face thereof with a nut 20 or other suitable fastening device for limiting the outward movement of the latch. The latch is forced outward to cause it to engage either a main keeper 21 or a supplemental keeper 22 by a coiled spring 23, interposed between the latch and the end bar of the gate and located at the upper portion of the latch, as shown. By this construction a sensitive and quick latch is provided. The main keeper 21 is adjustably mounted on a main latch-post 24 and is secured to a block 25 by screws or other suitable fastening devices; but it may be fixed to the block in any other desired manner. The block is provided with slots 26, through which pass bolts 27 for securing the block to the main latch-post. By means of the bolts the keeper may be readily adjusted backward or forward for causing the latch to engage it properly. When the gate closes, the latch automatically engages the keeper 21 and locks the gate in its closed position.

The gate is locked in its opened position by means of the supplemental keeper 22, secured to a block 28, which is adjustably mounted on an arm 29 of a supplemental latch-post 30. The keeper is constructed the same as that before described, and the block 28 is slotted to receive bolts 31, whereby it is adapted to be adjusted backward and forward to arrange the keeper in proper position for engaging the latch of the gate. The arm 29 of the supplemental latch-post is preferably braced, as shown, and the post is also supported by a brace 32. When the gate is opened, the latch automatically engages the supplemental keeper 22 and retains the gate in that position. By this construction the gate is prevented from being closed by the wind, and it is effectually prevented from being opened by stock.

The spring 23 is disposed on a wire 33, extending upward and rearward from the latch and secured at the front end of the same. The latch-wire 33 is connected by links 34 and 35, which are arranged in pairs, with a latch-lever 36, fulcrumed in the same vertical plane as the pintles of the gate by the pivot 37. The latch-lever is centrally pivoted on the extension 3 of the upwardly-extending arm of the rear end bar of the gate. The latch-lever is arranged at an angle of forty-five degrees with relation to the gate when the lat-

ter is closed, and the links 35 are connected with the latch-lever at opposite sides of the fulcrum-point and at points between the same and the ends of the latch-lever. The ends of the latch-lever are connected by wires 38 and 39 with operating-levers 40. The latch-lever has a horizontal swinging movement independently of the gate sufficient to operate the latch, and the latter will be withdrawn from the keeper preparatory to any movement of the gate.

The operating-levers 40, which are arranged horizontally, are fulcrumed between their ends on the tops of uprights 41, and the wires 38 and 39, which are arranged in pairs, are connected with the operating-levers at opposite sides of the fulcrum-points of the same. The operating-levers are extended, as shown, to form handles which are adapted to be readily grasped by a person on horseback or in a vehicle, whereby the gate may be readily opened and closed at a distance from it. When one of the operating-levers is oscillated, motion is communicated to the latch-lever, which, owing to its movement independently of the gate, withdraws the latch from engagement with the keeper. As soon as the latch is withdrawn and is at the limit of its inward movement the latch-wire operates on the gate and the continued movement of the operating-lever and the latch-lever swings the gate to open or close the same. As soon as the gate reaches the limits of its movement the latch automatically engages the adjacent keeper and locks the gate in its opened or closed position. The wires 38 and 39 or other suitable connections are provided at their ends with eyes for engaging the perforations of the latch-lever and eyes of the operating-levers.

The uprights are supported by suitable braces 41^a, preferably constructed of twisted wire and extending outward from the uprights, as shown; but any other suitable supports may be provided for the operating-levers. The extended handle portions of the operating-levers are preferably supported by movable braces 42, consisting of rods provided at their ends with eyes and hinged to the uprights and to the levers. The inclined bracing-arms extend upward and outward from the uprights, as clearly shown in Fig. 1 of the drawings.

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

1. The combination of a hinge-post, a gate hinged to the post and capable of vertical movement thereon, an inclined brace supporting the post, a lever fulcrumed between its ends on the brace, means for connecting the inner end of the lever with the lower portion of the gate, and means for adjustably securing the outer end of the lever, substantially as described.

2. The combination of a swinging gate, a

latch hinged at one end to the gate and having its other end slidably connected therewith, a connection extending rearwardly from the latch and attached to the same between
5 the ends thereof, a coiled spring disposed on the said connection and engaging the latch, a latch-lever mounted on the gate for operating the said connection, and means for operating the latch-lever and for swinging the gate, substantially as described.
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3. The combination with a swinging gate provided with a latch, of a support provided with a horizontal arm, a horizontally-adjustable block fitted against the arm and pro-

vided with horizontal slots, fastening devices 15 passing through the slots and securing the block to the arm and retaining the former in its adjustment, and a keeper secured to the block and at the inner end thereof and arranged to be engaged by the latch, substantially as described. 20

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

MILES K. LEWIS.

Witnesses:

J. B. DEAN,

F. S. LEWIS.