

B. F. NEUDECK.

GATE.

APPLICATION FILED AUG. 10, 1910.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 1.

978,192.

Fig. 1.

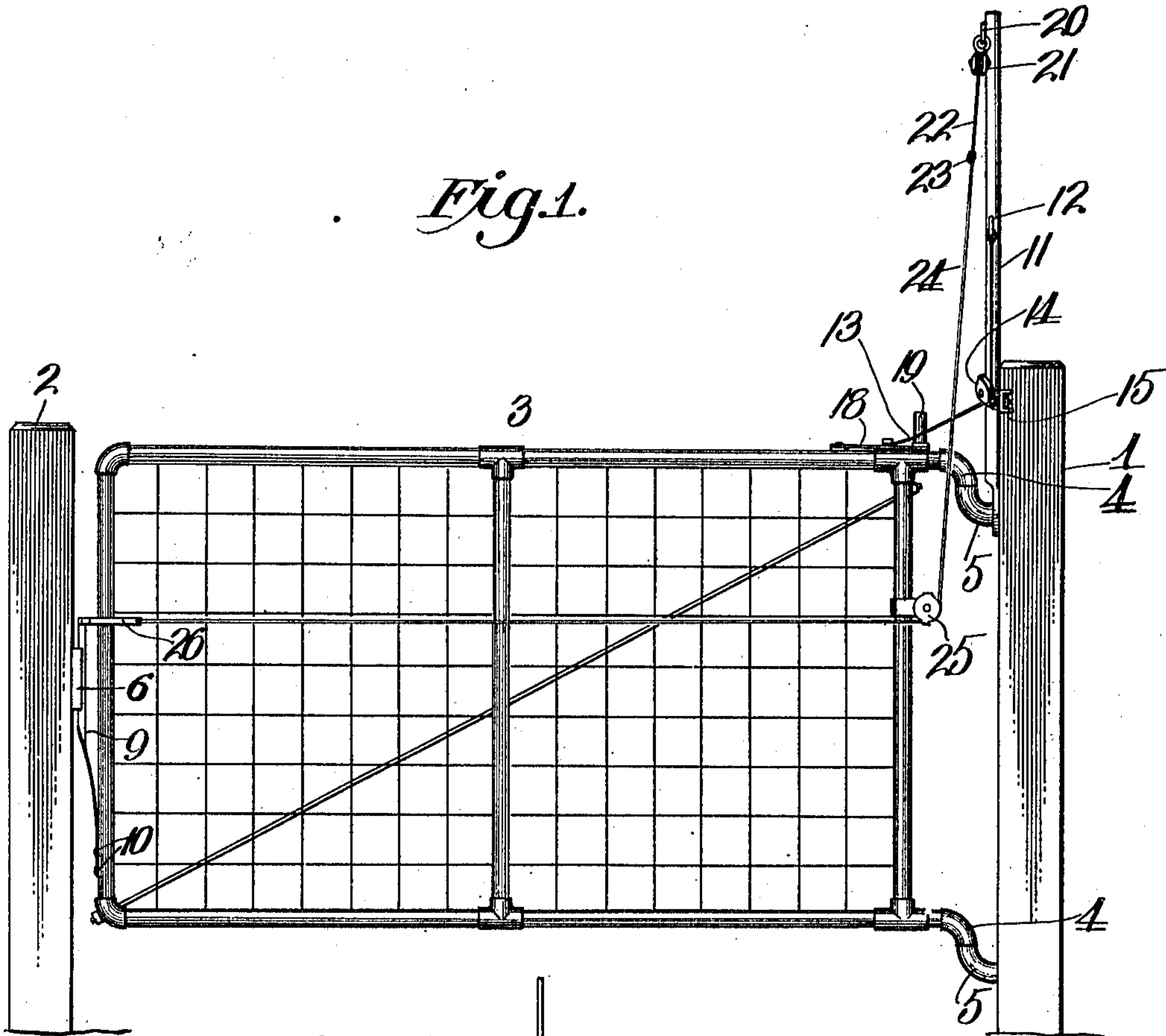


Fig. 2.

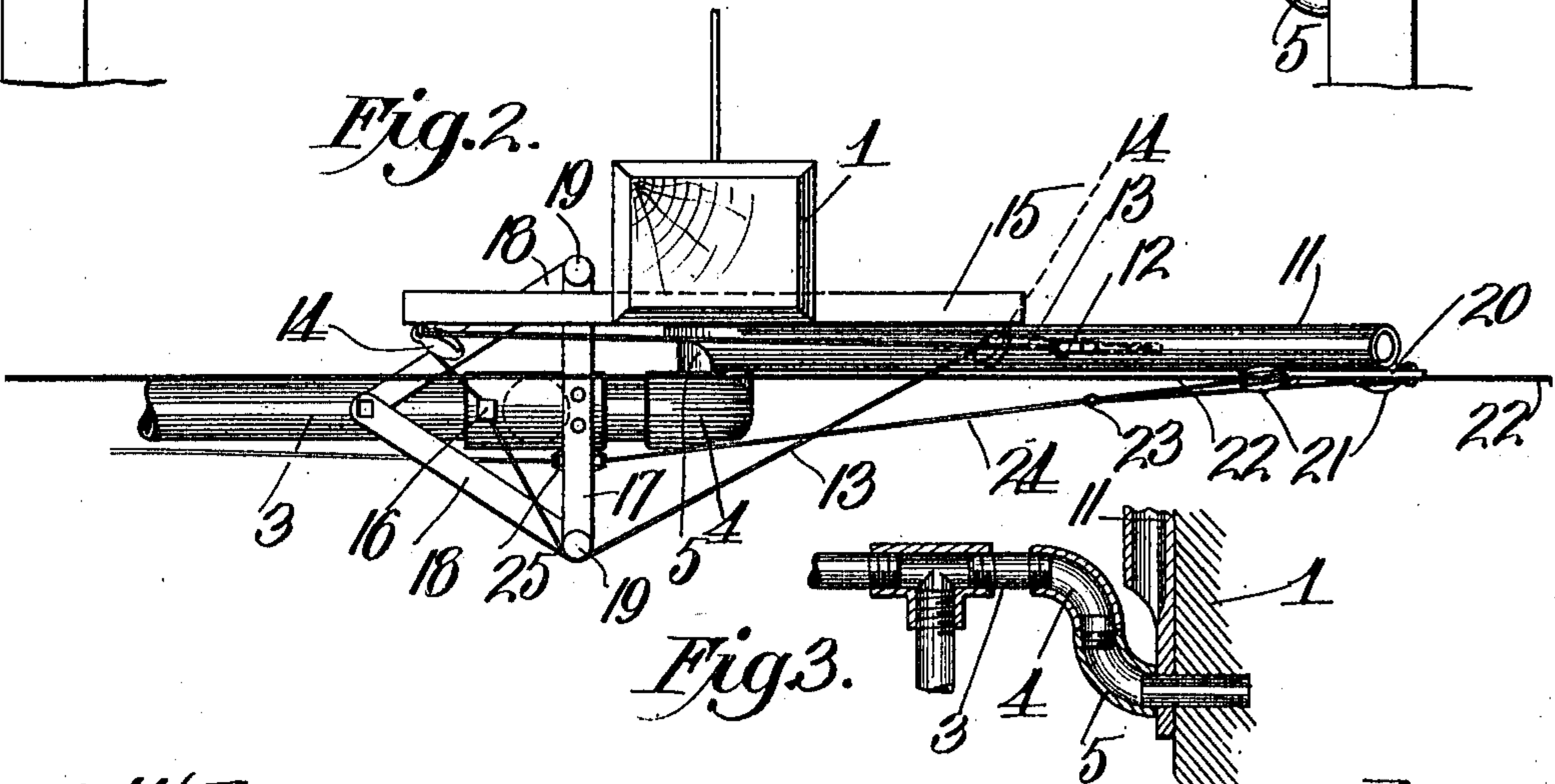
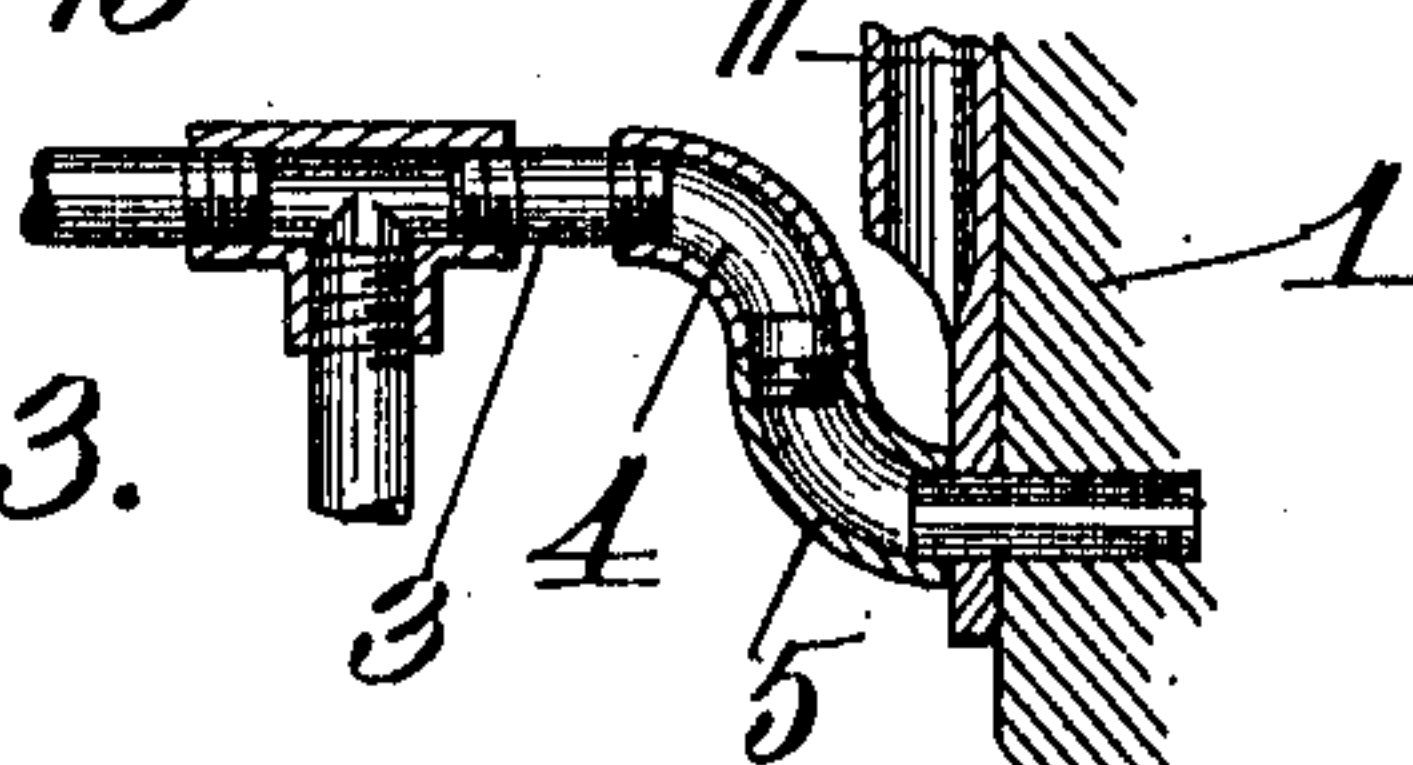


Fig. 3.



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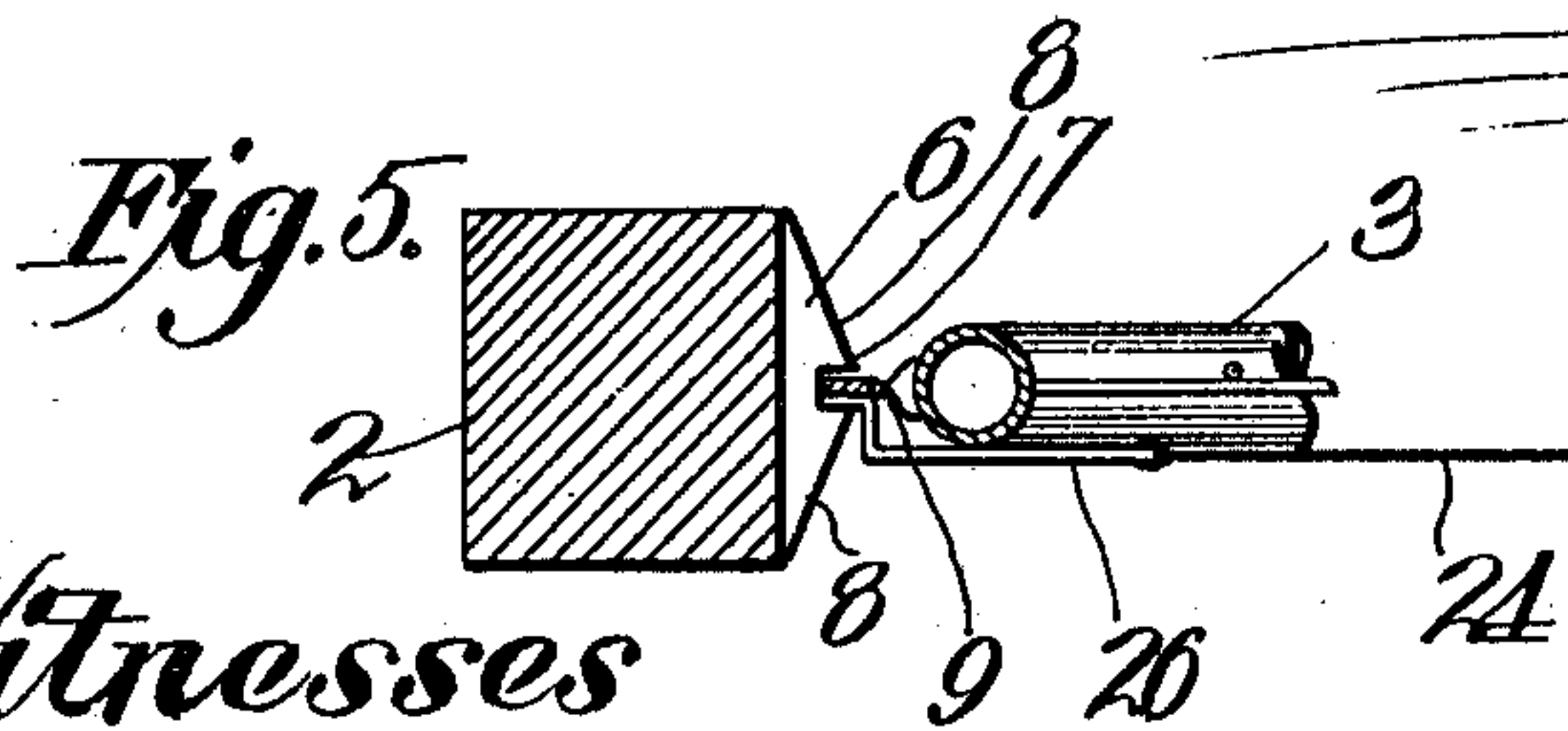
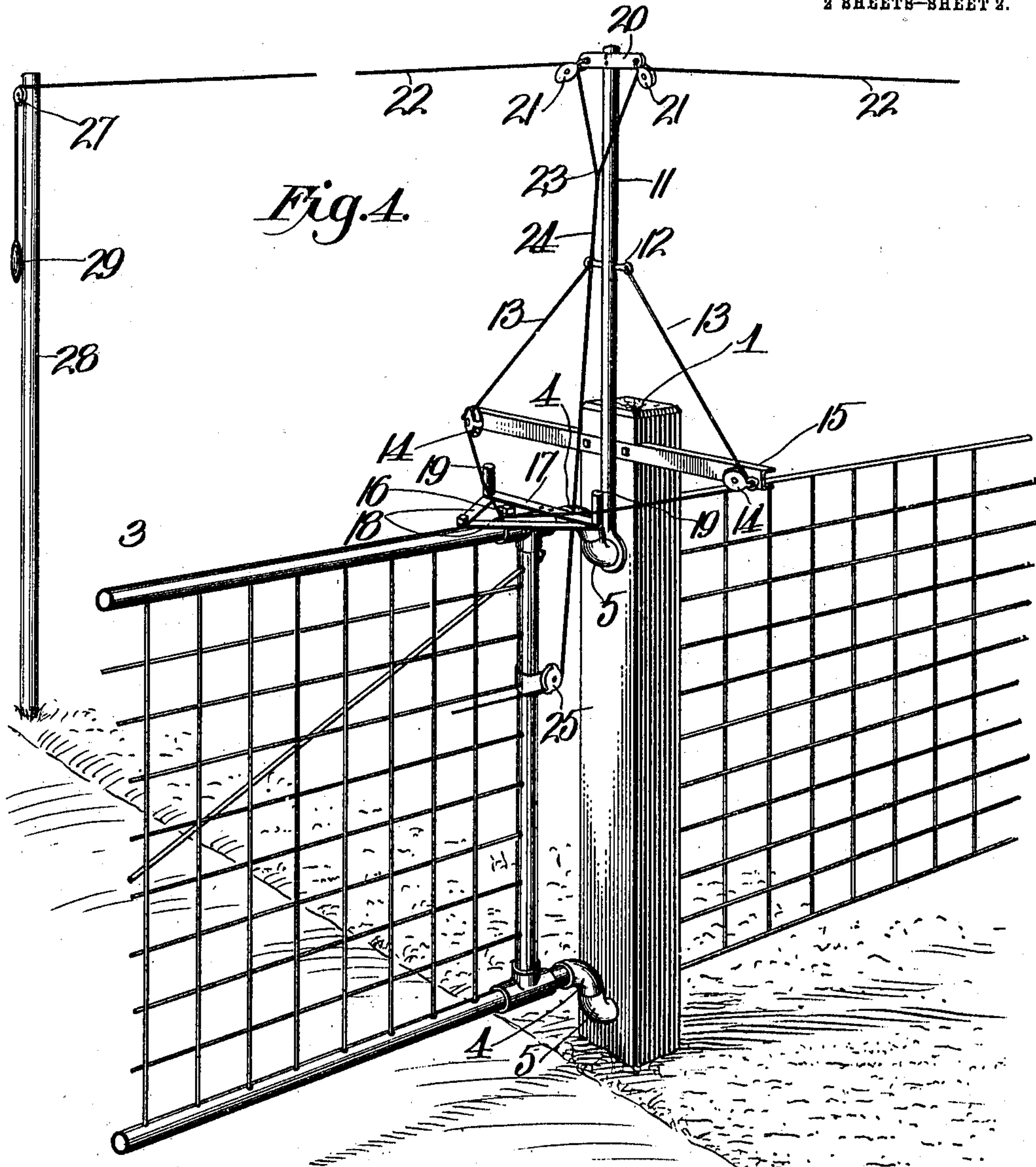
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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

BENJAMIN F. NEUDECK, OF KANSAS CITY, KANSAS, ASSIGNOR OF ONE-HALF TO R. H. WEBER, OF KANSAS CITY, MISSOURI.

GATE.

978,192.

Specification of Letters Patent.

Patented Dec. 13, 1910.

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To all whom it may concern:

Be it known that I, BENJAMIN F. NEUDECK, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Gates, of which the following is a specification.

This invention relates to farm gates of that class susceptible of being opened and closed through the instrumentality of pull cords by a person beyond the range or swing of the gate, and my object is to produce an efficient and reliable gate of this character embodying the desirable features of simplicity, strength, durability and cheapness of construction.

With this general object in view and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1, is a side view of a gate embodying my invention. Fig. 2, is a top plan view of the hinge end of the gate when the same is in opened position. Fig. 3, is a vertical section of the upper hinge corner of the gate, the adjacent hinge, the hinge post, and lever for effecting the unlatching of the gate and the opening and closing movements of the latter. Fig. 4, is a perspective view of the hinge end of the gate. Fig. 5, is a horizontal section of the latch post and the adjacent or free end of the gate and the latch carried thereby.

Referring now to the drawings in detail, where like reference characters indicate corresponding parts in all the figures, 1 is the hinge post and 2 the latch post of the gate 3, which may be of the construction shown or of any other suitable or preferred construction.

4 indicates the hinge members of the gate and 5 the hinge members carried by post 1, though it is to be understood that the particular method of hinging the gate is unimportant.

The latch post is provided with a latch plate 6, which is provided with a central notch 7, the latch having cam faces 8 which converge forwardly to said notch in order that either of said faces shall guide the latch 9 into the notch, the latch preferably con-

sisting of a twisted spring strip secured at its lower end as at 10 to the gate, the tendency of the latch being to spring forward so that as its upper portion rides over either cam face of the latch plate it will snap into the notch when opposite the same and thus secure the gate in closed position.

Pivoted at any suitable point, preferably upon the upper hinge member of the hinge post, as shown, is a rock lever 11, and extending transversely through the same is a pin 12, to the opposite ends of which is attached the upper ends of a pair of cables 13, or equivalent flexible devices, which extend divergently downward and engage sheaves 14, pivotally carried at the opposite ends of a horizontal bar 15 secured to the upper part of the hinge post and extending at right angles to the gate when the latter is closed. From said sheaves the said cables extend convergently toward the front end of the gate when the same is closed, and are secured thereto at 16.

17 is a bar secured to and arranged transversely of the gate near its hinge end, and 18 a pair of bars connecting the outer ends of bar 17 with the gate for the purpose of bracing the former, though it is obvious that it may be secured rigidly in position in any other manner desired, and projecting upward from the extremities of bar 17 are pins 19, which normally lie between the cables 13 at points intermediate the sheaves 14 and the point 16.

Secured to the upper end of lever 11 is a cross bar 20 equipped at each end with a sheave 21 and extending around said sheaves is a pair of pull cords 22, connected together at 23 to a latch-operating cord 24 which extends downward at one side of the hinge end of the gate and rearward by preference of bar 17, and around a sheave 25 secured to the gate and extends from said sheave to the front end of the gate where it is connected by a link 26 to the upper end of the latch 9.

From the sheaves 21 the pull cords extend in opposite directions parallel with the roadway to suitable guide sheaves 27 carried by posts 28, the said ends of the pull cords being preferably provided with handles 29, only one sheave 27, post 28 and handle 29 appearing.

Assuming that the gate is closed as shown in Figs. 1 and 4 and that one of the handles

29 is grasped and pulled, it will be seen that the latch is withdrawn from the latch plate and that immediately this action takes place, the pull on the cord is transferred to the gate because the latch will swing back only a slight distance before it in effect becomes a rigid part of the gate. As this occurs, the pull on the cord rocks the lever toward the pulled end of the cord, the result of this action being to apply a pulling strain at the upper end of the cable 13 at the opposite side of the lever, and therefore cause cable 13 to pull or swing the gate away from the operator, the pin 19 at the off side of the gate acting as a fulcrum point for the said cable whereby the leverage of the same on the gate is made sufficiently great to permit the gate to be opened with but little exertion on the part of the operator.

The gate swings open to the position shown in Fig. 2, the other cable 13 obviously being paid out by the lever to accommodate the increased distance between the sheave of said other cable and the point 16, it being noted by reference to Fig. 2, that as the gate is opened the pin 19 at the off side of the gate swings away from the adjacent cable 13 but that the companion pin 19 maintains its engagement with and increases the deflection of the lower part of the cable at the near side of the gate so that the pull imposed on the upper end of said cable shall be exerted in the most effective manner to easily close the gate when the pull is applied on the other pull cord as will be readily understood.

From the above description it will be apparent that I have produced a farm gate possessing the features of advantage enumerated as desirable in the statement of the object of the invention, and I wish it to be understood that I reserve the right to make all changes properly falling within the spirit and scope of the appended claims.

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

1. The combination with a hinged gate, of a lever susceptible of oscillation at right angles to the gate when closed, suitable guiding means at opposite sides of the plane of the gate when the same is closed, cables engaging said guiding means and extending convergently upward therefrom to the lever and attached to the same and convergently downward from said means to the gate and attached thereto forward of the hinge point, a pair of pins movable with and at opposite sides of the gate and standing normally between the front portions of said cables, one being adapted when the gate is swung open to deflect one of said pair of cables toward the latch post so that when a pulling strain is applied on said cable it shall exert a lateral pull on the gate and

easily effect the closure of the same, the other pin being adapted to perform the same function for the other of said cables when the gate is to be closed from the opposite direction, and means for rocking said lever to cause the same through one of said cables to open the gate and through the other to close the same.

2. The combination with a hinge post and a latch post of a gate hinged to the former and provided with a latch engaging the latter, of a lever bearing a pivoted relation to the hinge post and adapted to swing in a plane at right angles to the gate when closed, pull cords for swinging said lever in opposite directions, a cord connecting the pull cords with the latch for effecting the tripping of the same, a pair of cables attached at their upper ends to the said lever and at the lower ends to the gate, guiding means for holding said cables spread widely apart intermediate their ends, and pins at opposite sides of and movable with the gate, one being adapted when the gate is swung open to deflect one of said pair of cables toward the latch post so that when a pulling strain is applied on said cable it shall exert a lateral pull on the gate and easily effect the closure of the same, the other being adapted to perform the same function for the other of said pair of cables when the gate is to be closed from the opposite direction.

3. The combination with a hinge post and a latch post, of a gate hinged to the former and provided with a latch engaging the latter, of a lever bearing a pivoted relation to the hinge post and adapted to swing in a plane at right angles to the gate when closed, pull cords for swinging said lever in opposite directions, a cord connecting the pull cords with the latch for effecting the tripping of the same, a pair of cables attached at their upper ends to the said lever and at their lower ends to the gate, a horizontal bar secured to the hinge post and extending at right angles to the gate when closed, sheaves carried by said bar at opposite sides of the post and holding said cables intermediate their ends spread widely apart, and pins at opposite sides of and movable with the gate, one being adapted when the gate is swung open to deflect one of said pair of cables toward the latch post so that when a pulling strain is applied on said cable it shall exert a lateral pull on the gate and easily effect the closure of the same, the other pin being adapted to perform the same function for the other of said cables when the gate is to be closed from the opposite direction.

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

BENJAMIN F. NEUDECK.

Witnesses:

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G. Y. THORPE.