No. 742,217. PATENTED OCT. 27, 1903.

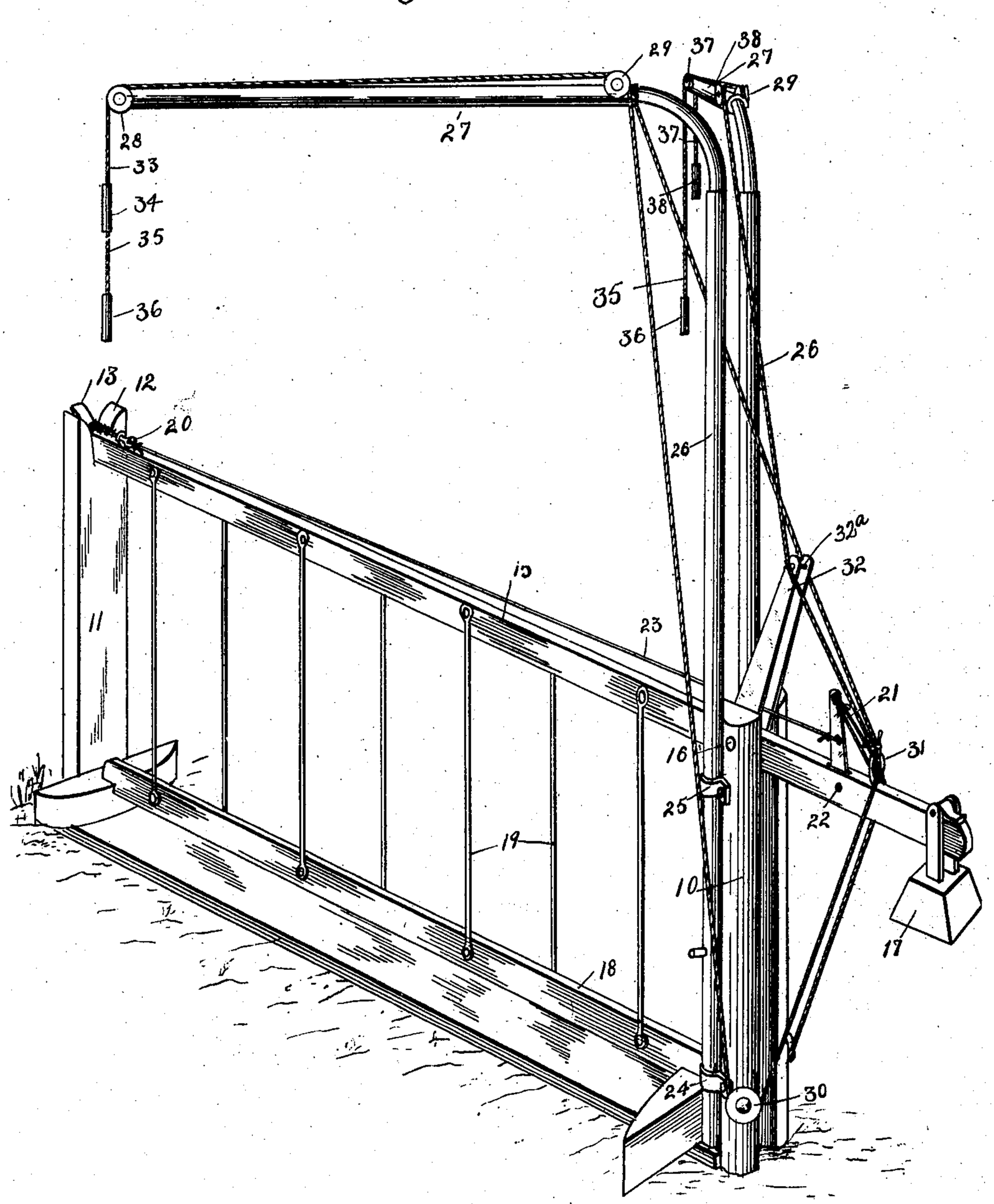
C. NIELSEN.

DRIVEWAY GATE.

APPLICATION FILED OCT. 14, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.



Witnesses.

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K. K. Keffer.

Inventor Christian Nielsen

By Dunlap & Lane Att'ys

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

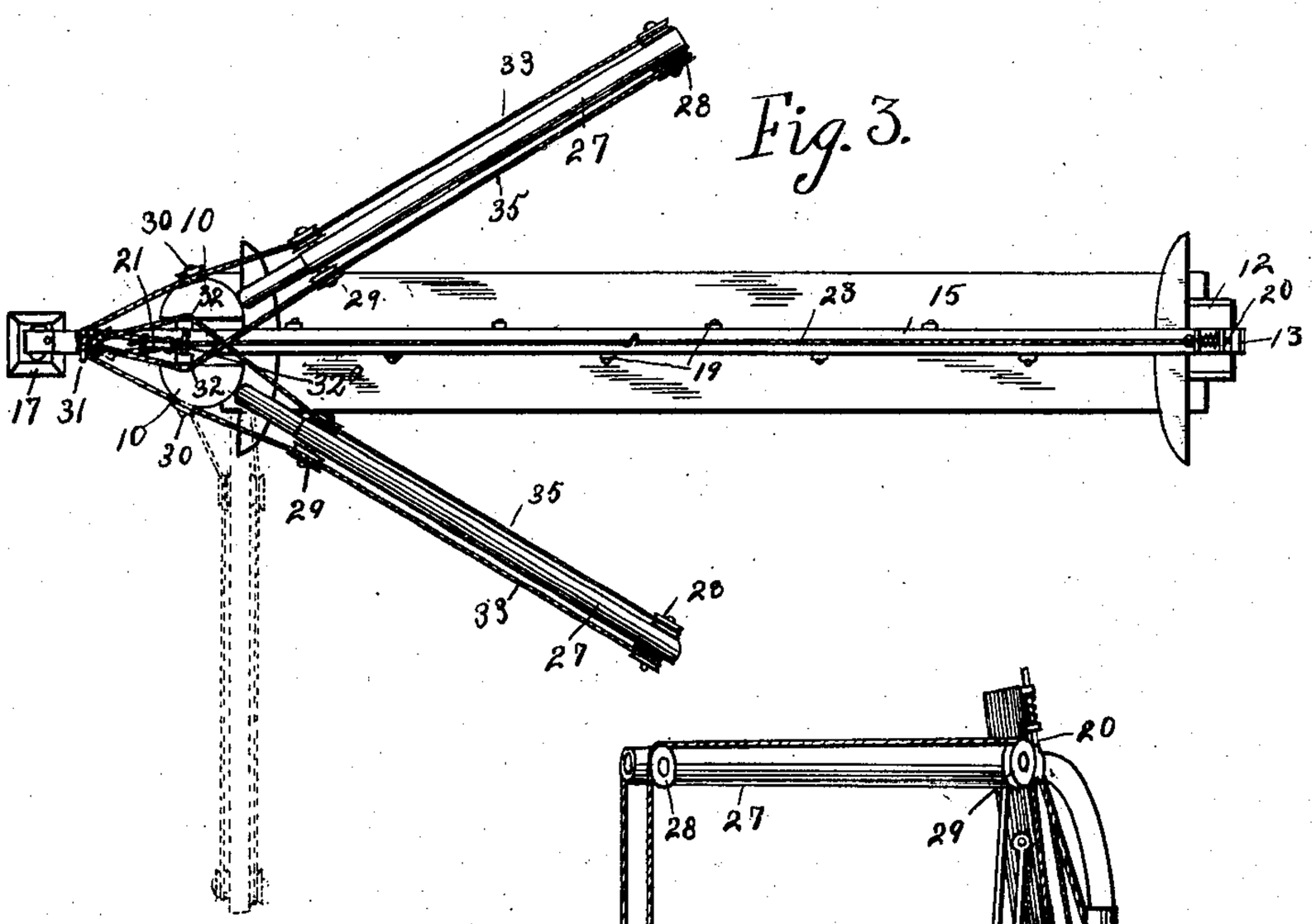
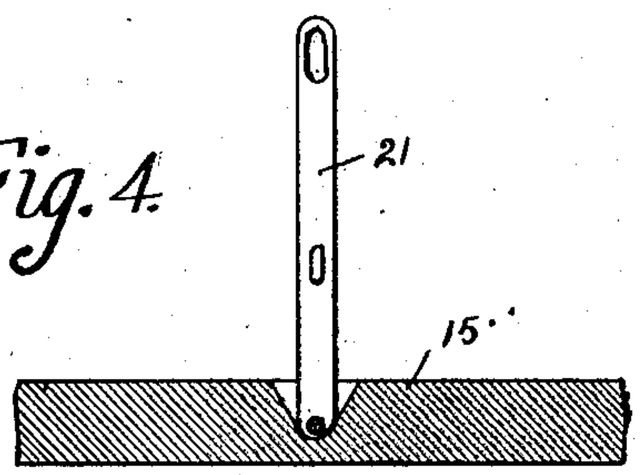


Fig. 4.



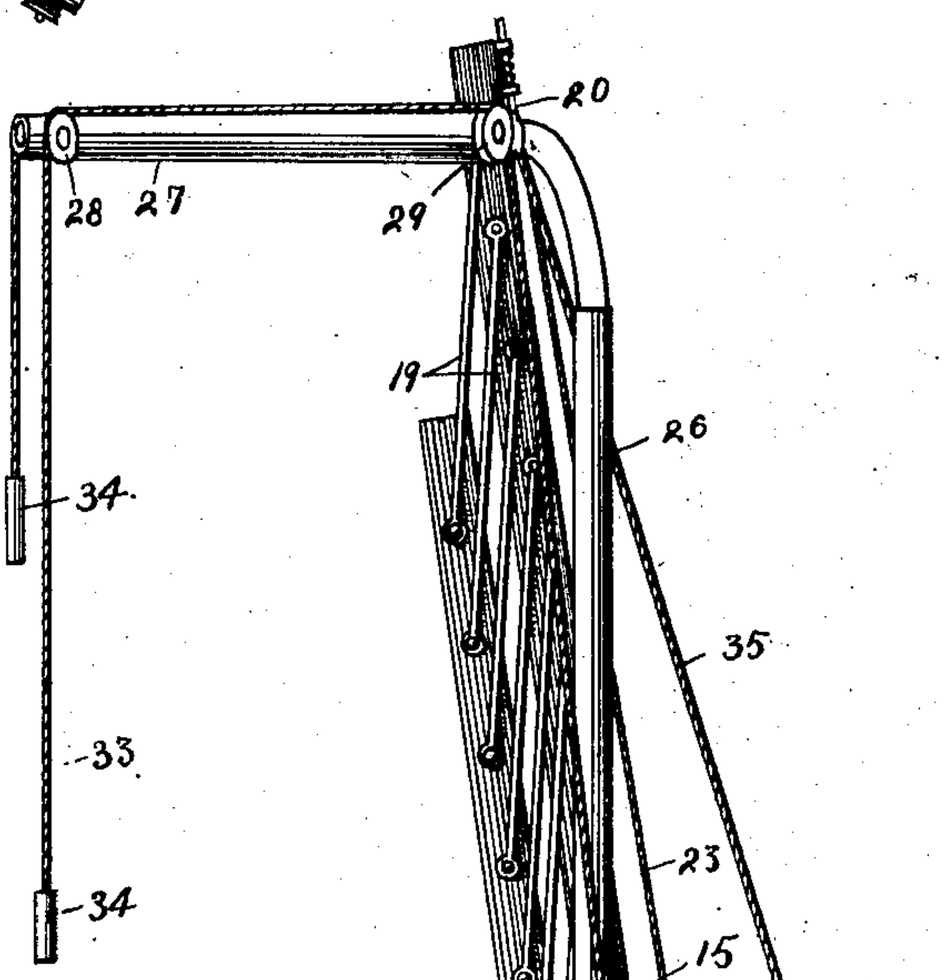
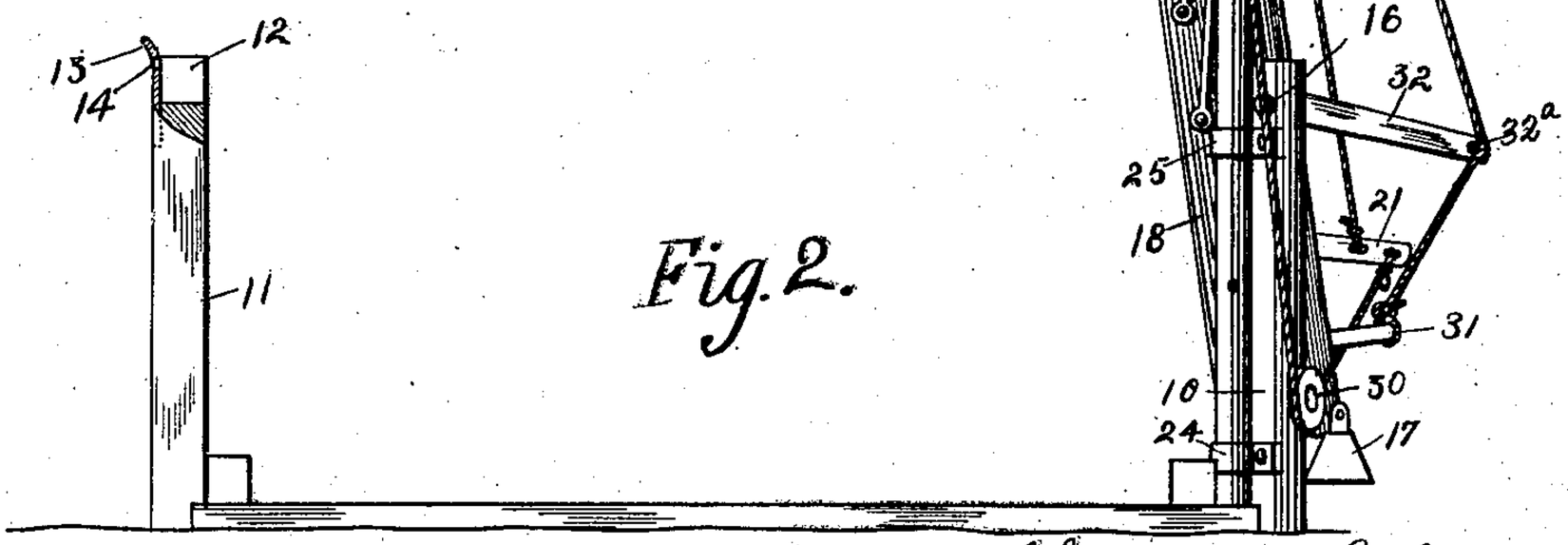


Fig. 2.



Witnesses.

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No. 742,217. Patented October 27, 1903.

UNITED STATES PATENT OFFICE.

CHRISTIAN NIELSEN, OF ALGONA, IOWA.

DRIVEWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 742,217, dated October 27, 1903.

Application filed October 14, 1902. Serial No. 127,282. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN NIELSEN, a citizen of the United States, residing at Algona, in the county of Kossuth and State of Iowa, have invented certain new and useful Improvements in Driveway-Gates, of which the following is a specification.

The objects of my invention are to provide a gate of this class of simple, durable, and inexpensive construction arranged to normally stand in position across a driveway and normally locked in position and to provide simple and easily-operated means by which the gate may be opened or closed by a person approaching the gate from either side, the gate-operating handles being arranged so that they may be easily moved to position where they may be most conveniently grasped by a person desiring to open or close the gate and also so arranged that they may swing laterally, so as not to obstruct the passage of large loads through the gateway.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of the complete gate in its closed position. Fig. 2 shows a side elevation of same in its open position. Fig. 3 shows a top or plan view of the gate in its closed position and by dotted lines illustrates the position of one of the arms for supporting the gate opening and closing handles swung to its outer limit of movement, and Fig. 4 shows an enlarged detail view of the lever for controlling the movement of the spring gate-latch.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the post to which the gate is attached. This post is preferably made of two parts slightly separated to admit portions of the gate between said parts.

The numeral 11 indicates a post at the opposite side of the driveway designed to receive and support the outer end of the gate. The top of the post 11 is provided with a recess 12 and with a curved metal plate 13, having a latch-opening 14 therein. The gate proper is composed of a top rail 15, pivoted at 16 between the parts of the post 10 and having one end designed to rest in the recess 12 of the post 11. The opposite end of the rail 15 projects toward the opposite side of the post 10, and a weight 17 is attached thereto to partially counterbalance the weight of the gate.

The numeral 18 indicates the lower rail of the gate, pivoted at one end between the parts of the post 10, and the rails 15 and 18 are connected by upright rods 19, said rods being pivoted at their ends to the rails, the alternate rods being arranged on opposite sides of the rails. Mounted on top of the rail 15 is a spring-actuated latch 20, designed to enter the latch-opening 14 in the curved plate 13, and mounted on top of the rail 15, near the opposite end thereof, is a short lever 21, pivoted at 22 to the rail and extended upwardly at right angles thereto. Near the central portion of the lever 21 I have attached a wire or rod 23, which is also fixed to the latch 20, so that when the upper end of the lever 21 is moved outwardly the said latch will move out of the latch-opening 14, thus permitting the rail 15 to be elevated.

When it is desired to open the gate, I first apply pressure to the lever 21 sufficient to withdraw the latch 20, as before explained, and I then apply pressure in a downward direction to the weighted end of the rail 15, thus moving the said rail to a substantially vertical position, and at the same time the rods 19 will bring the rail 18 to position close to the rail 15, as clearly illustrated in Fig. 2, thus allowing free passage-way through the gate-opening.

I have provided means for releasing the latch 20 and for raising and lowering the gate as follows: On each part of the gate-post 10 I have provided two brackets 24 and 25, and rotatably mounted in these brackets is an upright tube 26. At the top of each tube 26 is a horizontal arm 27, and obviously these arms may freely swing to position over the driveway. On one side of each arm 27 I have mounted a direction-pulley 28 at the outer end of the arm and a direction-pulley 29 at the inner end of the arm, and near the bottom of the adjacent part of the post 10 I have mounted a third direction-pulley 30. On

top of the rail 15 is a metal ring 31 adjacent to the lever 22, and directly above the pivotal point of the rail 15 is a rigid arm 32, extended upwardly substantially at right angles to the rail 15.

I have provided a handle depending from each of the arms 27, so arranged that when pulled downwardly it will open the gate.

Referring first to one of the gate-opening devices, I have used the reference-numeral 33 to indicate the rope to which the handle 34 is attached. This rope passes over the pulleys 28 and 29, under the pulley 30, through the ring 31, and is fixed to the upper end of lever 21. The gate-opening device on the other arm is exactly the same, and I have used the same reference-numerals to indicate the parts. Obviously the effect of a downward pull upon the handle 34 will be first to pull the upper end of the lever 21 outwardly, thus releasing the latch 20. Then a further pull upon the rope will be applied in a downward direction upon the outer end of the rail 15, thus tending to tilt the rail and open the gate, the weight 17 being sufficient to hold the gate in its open position after it has been placed therein.

The means for closing the gate comprises a rope 35, having a handle 36 thereon, said rope being passed over the direction-pulleys 37 and 38 on the arm 27 and then downwardly over a cross-piece 32^a on the arm 32, and the lower end is fixed to the ring 30. Obviously the effect of a pull upon the handle 36 will be applied directly to the outer end of the rail 15 in a direction tending to elevate the outer end thereof, and thus swing the gate to its closed position, and when in said position the spring-latch 20 will automatically lock the gate. The function of the arm 32 will be made apparent by an examination of Fig. 2 of the drawings. The said arm normally stands in a position substantially at right angles to the rail 15, and when the gate is in its open position, as shown in Fig. 2, this arm holds the rope 35 away from the pivotal point of the rail 15, thus applying the force of a pull on the rope 35 in a direction tending to swing the outer end of the rail 15 upwardly.

In practical use and assuming the gate to be in a closed position, and assuming, further, that the arms 27 are standing in position over the center of the driveway, obviously a person approaching the driveway in a vehicle may conveniently grasp the handle 34 and by pulling upon it first release the spring-latch and then elevate the gate. The gate will stand in its open position until the operator reaches the handle 36 on the opposite side of the gate, and obviously by pulling upon this handle the gate will be closed and automatically locked. In use I prefer to have the arms 27 stand in about the position shown. However, if it is desired to pass through the gateway with a large load—such, for instance, as a load of hay—the operator may when he approaches the arm 27 easily swing it outwardly to the position shown in dotted lines in Fig. 3, and then the load may easily pass through the driveway, and at the same time the operator on the load may readily grasp the handles for opening and closing the gate.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. The combination with a gate arranged to open by swinging upwardly, of an upright pivotally supported adjacent to the point where the gate is supported, an arm attached to said pivoted upright, and a gate opening and closing device supported upon said arm and moving with the arm.

2. In a device of the class described, the combination of a gate-post, a gate consisting of an upper rail pivoted to the post to swing vertically, a lower rail pivoted to the post to swing vertically, parallel rods connecting the upper and lower rails and pivoted thereto, a spring-actuated latch on the gate, two uprights pivoted to opposite sides of the gate-post, an arm on each upright, a lever pivoted to the upper rail of the gate, beyond the pivotal point of said rail, a wire connecting the lever with the spring-latch, a rope carried by each arm, a direction-pulley for each rope near the lower end of the rope, said post being passed under said direction-pulley and attached to the said lever, and a second rope carried by each arm, attached directly to the outer end of the top rail of the gate, for the purposes stated.

3. In a device of the class described, the combination of a two-part gate-post, a top rail pivoted to the gate-post to swing vertically, and having an extension thereon, a second rail pivoted to the post to swing vertically, parallel rods pivoted to said rails, a post to receive the outer end of the top rail, a curved latch-plate thereon, a spring-actuated latch on top of the top rail to engage said latch-plate, a lever mounted on the top-rail extension, a wire connecting said lever with the latch, a weight on said extension, a ring carried by the extension between the weight and said lever, a guide-arm fixed to the top rail near its pivotal point and extended substantially at right angles to the rail, an upright pivotally mounted on each side of the gate-post, a horizontal arm at the top of each upright, two direction-pulleys near the lower end of the gate-post, a rope slidingly supported on each arm extended downwardly under the corresponding direction-pulley then upwardly through said ring, and attached to said lever, and a second rope slidingly supported on each arm and attached directly to the said ring, substantially as and for the purposes stated.

CHRISTIAN NIELSEN.

Witnesses:
N. W. HART,
M. P. WEAVER.