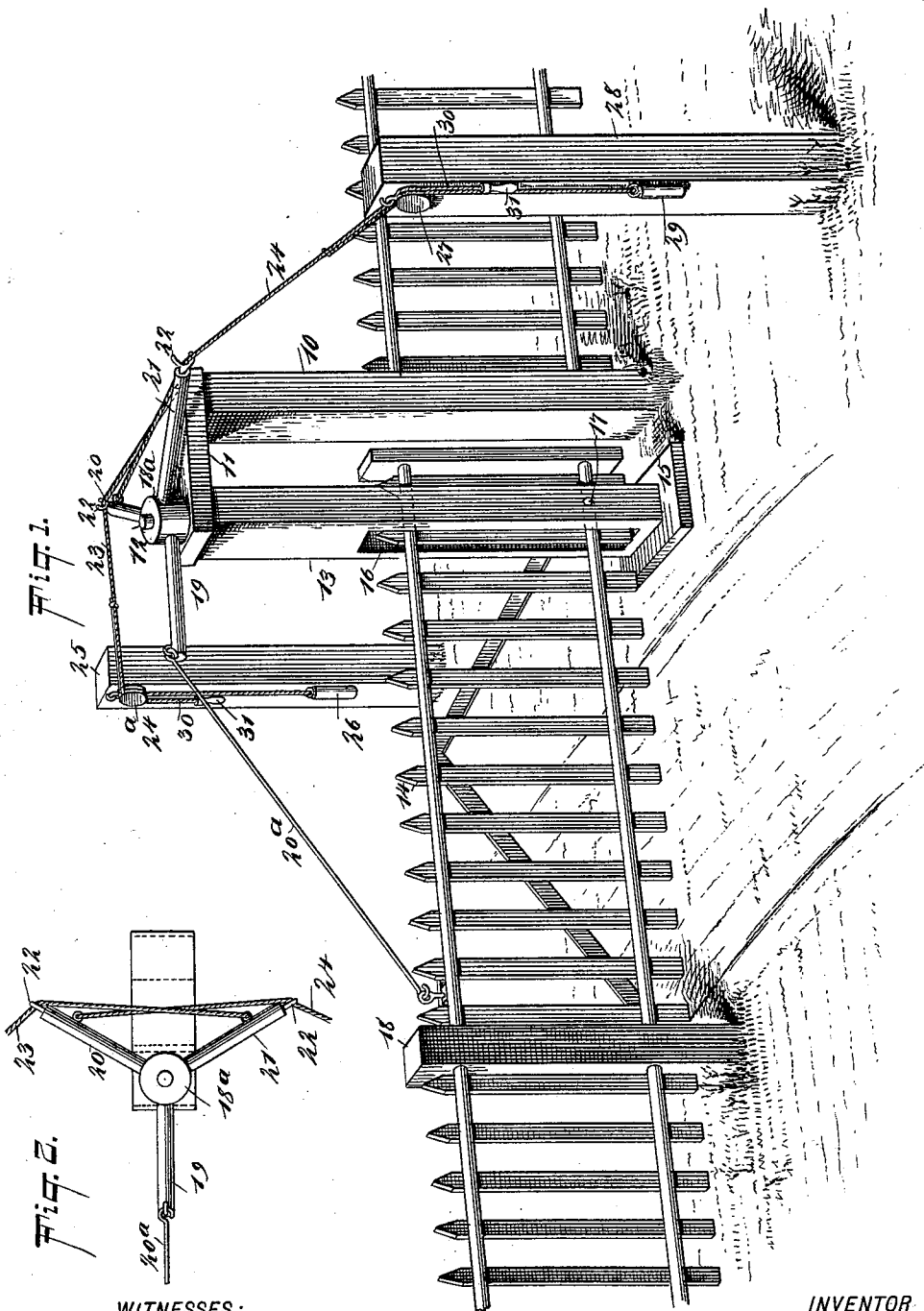


(No Model.)

J. B. VAN NADA.
GATE.

No. 520,717.

Patented May 29, 1894.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN B. VAN NADA, OF PETERSBURG, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 520,717, dated May 29, 1894.

Application filed November 3, 1893. Serial No. 489,925. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. VAN NADA, of Petersburg, in the county of Pike 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, especially to an improvement in swing gates, and it has for its object to improve upon the construction of the gate patented to J. L. Talson, No. 352,016, dated November 22, 1886, the improvement being such that levers will be dispensed with and a simple and economic opening device will be substituted for the levers, which device, should it get out of order can be readily repaired by any person even though that person is not mechanic, the material for making the repairs being at hand upon most premises.

Another object of the invention is to provide an opening and closing device for the gate capable of being conveniently operated from either side, and likewise to provide a means whereby in opening or closing the gate the operator will be materially assisted by the device, it relieving the operator of considerable of the weight of the gate.

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 claim.

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

Figure 1 is a perspective view of the improved gate; and Fig. 2 is a plan view of the leading portion of the operative mechanism.

In carrying out the invention a post 10, which may be the end post of a panel, is provided with a cap block 11, preferably secured to its upper end, said cap block being horizontally located, and extending beyond one face of the post a predetermined distance. The cap block 11 at its free end is fitted to receive and journal the trunnion 12, of the swing post 13 of the gate 14, the lower end of the swing post being likewise provided with a trunnion journaled in a base block 15, or equivalent support. The swing post 13 and the stationary post 12, are therefore parallel. The swing post is provided with a slot 16, ex-

tending from front to back, and from a point near the bottom to a predetermined point near the top. The body of the gate 14, is passed through the slot 16 in the swing post, and is secured to said post by passing a single bolt 17, or its equivalent through the lower portion of the gate. A portion of the body of the gate is preferably located between the post 10 and the swing post 13.

The gate may be closed against the keeper post 18 in any suitable or approved manner, being provided with any suitable form of latch. The upper trunnion of the swing post passes through the cap block 11, and upon it a hub 18^a, or an equivalent thereof is pivoted, the hub being preferably provided with three arms, designated respectively as 19, 20 and 21. When the gate is closed, two of the arms 20 and 21, extend in a rearwardly direction from opposite sides of the hub, while the third arm 19, is, when the gate is closed, located over the top thereof, and is adapted to assist in strengthening the gate, since a link 20^a, connects the outer extremity of the arm 19 with the free or unsupported end of the gate. The arm 19, acts also to unlatch the gate; as when the hub is turned for the purpose of opening or closing the gate, the arm 19 is thrown around to one side, thereby raising the outer end of the gate out of its latch, the link 20^a, acting to force the gate to travel in the same direction with the arm 19, but the gate is swung around largely of its own weight.

The arms 20 and 21, are ordinarily provided at their outer ends with a fork 22, or other suitable form of guide device; and adjacent to each fork each arm 20 and 21 has one extremity of a rope, cable or chain attached to it. The two ropes, chains or cables are designated respectively as 23 and 24. The rope 23, which is attached to the arm 21 for example at the right hand side of the hub, is passed through the guide upon the opposite arm 20, and from thence over a pulley block 24^a, connected with a post 25, placed in a stationary manner at the left hand side of the gate; and the lower end of the rope 23, is provided with a weight 26.

The rope 24, which is attached to the left hand arm 20, is passed through the guide 22 on the right hand arm 21, and downward over a block 27, located upon a post 28, at the

right hand side of the gate, the posts 25 and 28 being ordinarily placed in alignment; and the lower end of the rope 24 is likewise provided with a weight 29.

5 The pulley blocks 24^a and 27, are made double, as each is adapted to accommodate a hand rope 30, said hand ropes being attached to the ropes, chains or cables 23 and 24 at a predetermined point above the blocks, as
10 shown in Fig. 1. The hand ropes are usually provided with handles 31 at their lower extremities.

By providing the cables or ropes 23 and 24 with hand ropes 30, the gate can be more easily and conveniently operated than by the cables of ropes 30 themselves, as the hand ropes 30 can be grasped and pulled to operate the gate without raising the weights at the ends of the said cables or ropes, whereas if the
20 cables or ropes are employed for this purpose, the weights would have to be raised and when the cables were released, the weights falling would beat and batter the posts, and their falling would also be liable to disengage the
25 ropes or cables from their pulleys. All this is avoided by the employment of the hand ropes. The hand ropes also permit the lower ends of the ropes or cables and their weights to be incased so as to protect them.

30 In the operation of the gate, when a person desires to pass through it from the right hand side, by drawing down upon the hand rope at the right hand side of the gate the draft rope 24 with which it is connected will cause the
35 left hand arm 20 to be drawn over in the direction of the right hand side of the gate, likewise the arm 19, which latter will unlatch the gate, while the draft upon the arm 20 will give

momentum and the gate will practically of its own accord continue to swing out to an open position. The weights serve to keep the draft cables 23 and 24 taut. The gate is closed from the left hand side in like manner as it was opened.

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

In a swing gate, the combination, with a pivoted and slotted post, a gate secured in the slot of the said post, guide posts located at opposite sides of the pivotal posts, a hub secured to the upper trunnion of the pivoted post, said hub being provided with two rearwardly extending arms, and a third arm extending over the gate, the rearwardly projecting arms extending also beyond opposite sides of the swing post and being provided with guide devices at their outer ends, and a link connecting the arm extending over the gate with the free end thereof of cables having weights at their lower ends, secured one to each rearwardly extending arm, which cables cross one another and engage with the guide devices on the arms opposed to those to which they are secured, double pulleys located upon the guide posts over which the ropes pass, and hand ropes secured to the draft ropes or cables of the arms above their connection with the pulleys, which hand ropes extend also over the pulleys, as and for the purpose specified.

JOHN B. VAN NADA.

Witnesses:

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