

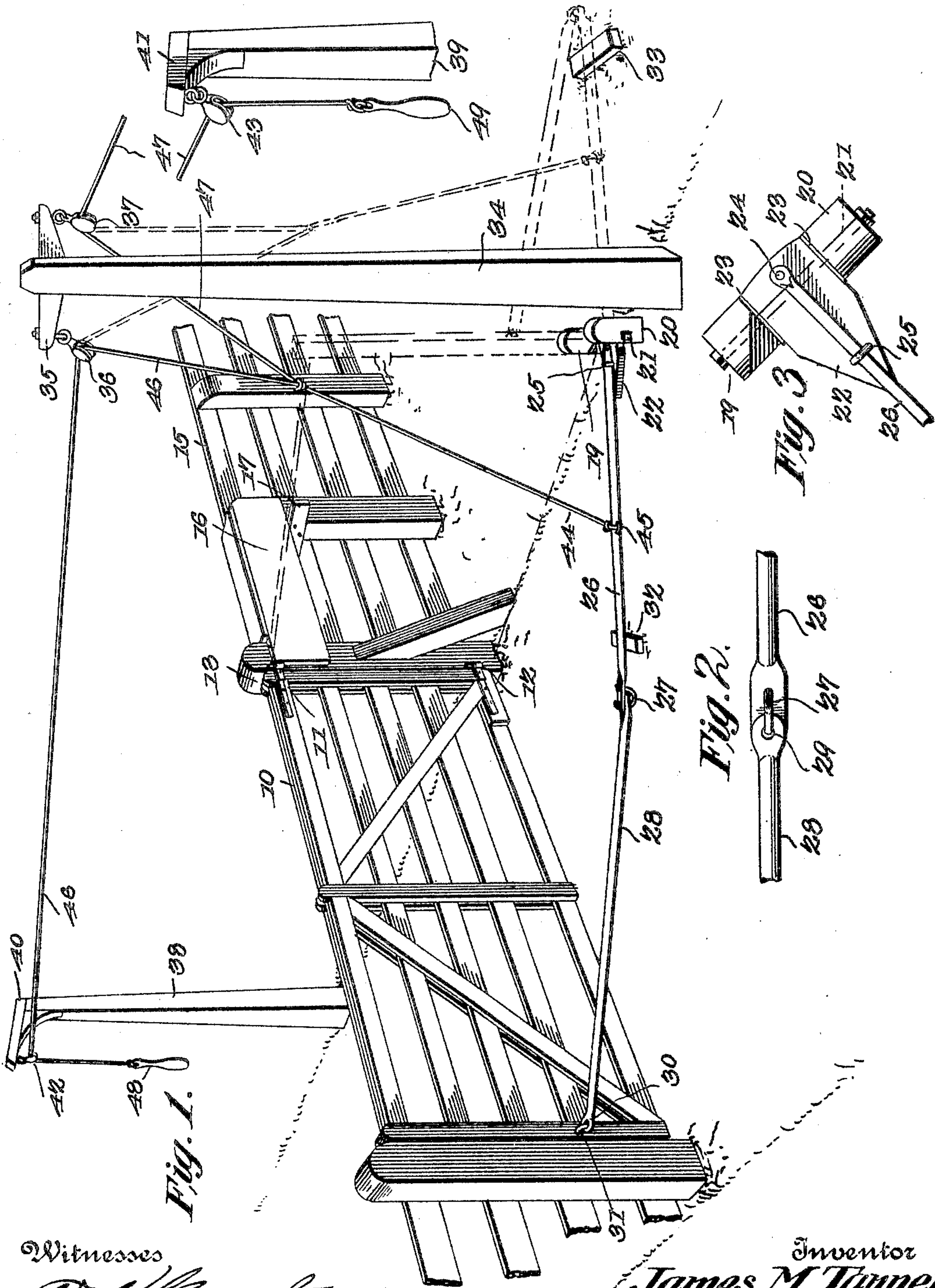
No. 797,633.

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J. M. TANNER.

GATE.

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UNITED STATES PATENT OFFICE.

JAMES MADISON TANNER, OF EDINBURG, ILLINOIS.

GATE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES MADISON TANNER, a citizen of the United States, residing at Edinburg, in the county of Christian and State of Illinois, have invented a new and useful Gate, of which the following is a specification.

This invention relates to that class of gates adapted for opening and closing from a vehicle or from horseback without alighting from the same, and has for its object to improve and simplify the construction and increase the efficiency, durability, and ease of operation of such devices.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages, and the right is therefore reserved of making all the changes and modifications which fairly fall within the scope of the invention and the claims made therefor.

In the drawings, Figure 1 is a perspective view of the improved device with the gate closed. Fig. 2 is a detail of coupling between the adjacent ends of the operating-rods. Fig. 3 is a detail of the coupling means between the operating-rods and the combined fulcrum and gate stop-posts.

The gate 10 may be constructed of any desired size or of any desired material and is hinged, as at 11 12, to a post 13 and swings to a position opposite the post 14 at the opposite side of the gateway-opening in the usual manner.

Attached to the hinge-post 13 and extending away from the same and in alinement with the fence 15 is a box 16 for containing weights of any suitable kind—such as stone, iron, lead, or the like—or which may be utilized as a box for holding farm-tools of various kinds when not in use and whose weight will assist in maintaining the hinge-post in a vertical position and effectually prevent the sagging of the

gate. A stop-cleat 17 is attached to the first post 18 of the fence next to the hinge-post 13 to prevent undue downward movement of the box.

Located at a distance from the gate are spaced posts 19 20, disposed at an angle to the longitudinal plane of the fence, and one of the posts forms a stop to limit opening movement of the gate. A shaft 21 is mounted in the posts 19 20 and provided with a block 22 for rotation upon the same, the block being preferably of wood with wear-plates 23 at the sides to prevent undue wear of the wood. Coupled to the block 22, as by a bolt 24 and U link or clip 25, is a rod 26, preferably of gas-piping, flattened at one end to receive the bolt 24 and likewise flattened at the other end to receive a U-clip 27. The rod 26 reaches about one-half the distance between the shaft 21 and the free end of the gate 10 and is coupled movably to another gas-pipe rod 28 by an eye 29 in one end for engaging the loop 27, the other end of the rod 28 having an eye 30 for movably engaging a U-clip 31, fastened to the gate 10. The eyes in the ends of the rods 28 are formed in the flattened ends of the same, and the U-clips 27 and 31 being disposed in vertical planes it is obvious that when a lifting power is applied to either of the rods they will double or fold up and over, as in dotted lines in Fig. 1, and forcibly open the gate and swing it against the stop-post 19. Then by simply reversing the motion the gate will be closed.

In opening the gate the two bars are elevated until the central joint 27 29 passes the center, when the momentum of the gate will carry the joint 27 29 past the vertical line above the pivot-shaft 21, and the momentum of the gate, assisted by the gravity of the rods and their attachments, will complete the opening motion. In closing the gate the same action takes place in reversed order, the weight of the rods coacting with the momentum of the gate to cause it to automatically close, and the central joint falling below a direct line between the pivot-shaft 21 and coupling 30 31 forms an effectual lock to prevent the opening of the gate.

It will be observed that the operating-rods 26 and 28 are arranged directly in alinement with each other, as viewed in plan, when the gate is closed and afford a direct thrust member for resisting opening movement of the valve. As these two rods are disposed at an angle oblique to the line of the gate, the

opening and closing movements could not be accomplished with joint connections of the ordinary type, and for this purpose the connection shown and described is of such nature that when the rod 26 is swung upward the rod 28 will be allowed to move out of alignment with the rod 26, and the parts are thus free to swing the gate to the open position.

Blocks 32 33 are located in proper position to support the jointed ends 27 29, both when closed and open, to prevent them from coming in contact with the ground.

Any suitable means may be used for actuating the rods 26 28; but the usual means employed in connection with gates of the class herein described will preferably be employed, consisting of a post 34, located adjacent to the pivot-posts 19 20 and provided with a cross-arm 35, having cable-carrier pulleys 36 37 and posts 38 39, located at suitable distances at opposite sides of the gateway-opening and provided with lateral arms 40 41, having cable-guide pulleys 42 43. A cable or chain 44 is connected, as at 45, to the rod 26 and leads therefrom and is divided into two cables or chains 46 47, leading, respectively, over the guide-pulleys 35 and 42, over the guide-pulleys 36 and 43, and terminating in handles 48 49, the handles being thus disposed in position convenient to persons in passing vehicles or on horseback and being heavy enough to take up the slack of the cables or chains.

By this simple arrangement of parts it is

obvious that an inexpensive, efficient, and easily-operated gate is produced which may be erected in any size of gateway-opening and will be automatically locked in closed position and not liable to be accidentally opened and which cannot be opened by animals in their attempts to pass through the same.

Having thus described the invention, what is claimed is—

The combination with a swinging gate, of a pair of short spaced posts arranged to admit the free end of the gate when the latter is in open position, one of said posts being cut away to form a gate-stop, a block mounted pivotally between the posts, an arm having one end rigidly secured to the block, the other end of the arm being supported close to the surface of the ground, a rod having pivotal connections with the outer end of the arm and the gate and extending when the gate is closed in an inclined direction between said point of connection with the gate and the outer end of the arm, the two being disposed at an obtuse angle to each other and the rod being free from the weight of the arm, and an operating means connected to the arm.

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

JAMES MADISON TANNER.

Witnesses:

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