No. 693,785. Patented Feb. 18, 1902.

A. CLAY.

GATE.

(Application filed Oct. 3, 1901.)

(No Model.)

Fig. 3.

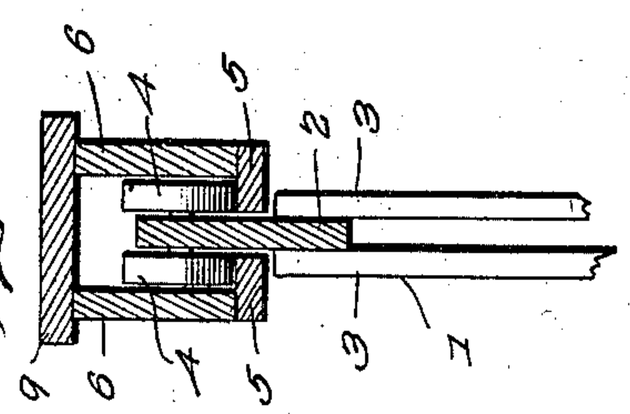

Fig. 1.

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

ABSALOM CLAY, OF APPALACHIA, VIRGINIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 693,785, dated February 18, 1902.

Application filed October 3, 1901. Serial No. 77,431. (No model.)

To all whom it may concern:

Be it known that I, ABSALOM CLAY, a citizen of the United States, residing at Appalachia, in the county of Wise and State of Virginia, have invented a new and useful 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 sliding-gates and to provide a simple, inexpensive, and efficient one of great strength and durability and capable of being readily opened and closed at a distance from either side of it by a person on horseback or in a vehicle.

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.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention. Fig. 2 is a detail view of a portion of the top of the gate, illustrating the arrangement of the rollers or wheels and the inner end of the upper connecting-rod. Fig. 3 is a detail sectional view of the top of the gate, illustrating the manner of supporting the same.

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

1 designates a sliding gate preferably composed of horizontal rails and end bars, which are extended above the rails to a top bar 2, as clearly shown in Fig. 1 of the drawings. The end bars 3 are preferably arranged in pairs, as shown; but the gate may be constructed in any other desired manner. The top bar is provided at its front and rear portions with pulleys or wheels 4, disposed in pairs and located at opposite sides of the top bar and arranged upon tracks or rails 5, formed by bars secured to and extending inward from the lower edges of parallel side bars 6. The side bars 6 are supported by posts or uprights 7 and 8 and are connected by a top bar 9, which is adapted to exclude snow and rain from the interior of the top of the support, whereby the gate is prevented from freezing in cold weather. The rollers or wheels support the gate and enable the same to slide freely and frictionlessly in opening and closing, and the top of the support, which forms a casing, extends rearward beyond the uprights 8 sufficiently to support and protect the gate when the latter is open.

The top of the gate is connected by a rod or bar 10 with an oscillatory lever 11, fulcrumed at its lower end on an arm 12, which extends outward from the upright 7 of the support. The lever 11, which may consist of a rod or bar, diverges from the upright 7 when the gate is closed, as illustrated in Fig. 1 of the accompanying drawings, and it is adapted to swing inward toward the upright 7 to reciprocate the upper connecting-rod 10 and move the same inward into the casing of the top of the support, whereby the gate will be carried backward and opened. When the lever 11 is swung outward to the position shown in Fig. 1, the gate will be carried forward to its closed position. The oscillating lever is connected at a point between its ends by a link 13 with a depending arm 14 of a rock-shaft 15, extending longitudinally of the roadway and adapted to be partially rotated to open and close the gate. The link 13 is pivoted at its ends to the lever 11 and to the arm 14, which is arranged centrally of the rock-shaft, and the latter is journaled in suitable bearings 16, arranged on the upright 7, near the top thereof. The rock-shaft, which may be constructed of any suitable material, may extend any desired distance from the gate, and it is provided at its outer end with suitable arms or handles 17, adapted to be grasped by the operator, and these handles or arms may be in the form of loops, as illustrated in Fig. 1 of the drawings, or any other construction of arm or grip may be employed for this purpose. The arms or handles 17 are adapted to be oscillated for partially rotating the rock-shaft to open and close the gate, which may be operated by a person on horseback or in a vehicle.

It will be seen that the gate is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it is adapted to be readily operated at a distance from either side of it.

What I claim is—

1. The combination of a support provided at the top with a horizontal casing having an

interior track and open at one end, a gate suspended from the said track and arranged to slide longitudinally thereof, an oscillating lever arranged in an upright position and fulcrumed at its lower end, an approximately horizontal connecting-rod pivoted at its outer end to the upper end of the lever and extending from the same into the open end of the casing and connected with the gate, and a rock-shaft arranged beneath the connecting-rod and provided with a depending arm located between the support and the lever and connected with the latter, substantially as described.

2. The combination of a support, a sliding gate, an upright oscillating lever fulcrumed at its lower end at one end of the support and arranged to oscillate in a plane in alinement with the plane of the gate, an approximately horizontal connecting rod or bar extending from the lever to the gate, a rock-shaft extending from opposite sides of the gate and located below the connecting rod or bar and between the lever and the gate, and provided with an arm and a link connecting the arm with the lever, said link and arm being located between the lever and the gate, substantially as described.

3. The combination of a support, a sliding gate, a fixed arm 12 extending from the support, an upright lever fulcrumed at its lower end on the fixed arm 12, a connecting rod or bar extending from the upper end of the lever to the gate, a rock-shaft extending longitudinally of the roadway and provided at its ends with suitable arms or handles and having a centrally-arranged arm located between the support and the lever, and a link connecting the central arm of the rock-shaft with the lever at a point between the ends thereof, substantially as described.

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

ABSALOM CLAY.

Witnesses:

ALFRED F. COOPER,

J. M. COOPER.