No. 697,880. Patented Apr. 15, 1902.

W. M. PLASTER.

GATE.

(Application filed Nov. 26, 1901.)

(No Model.)

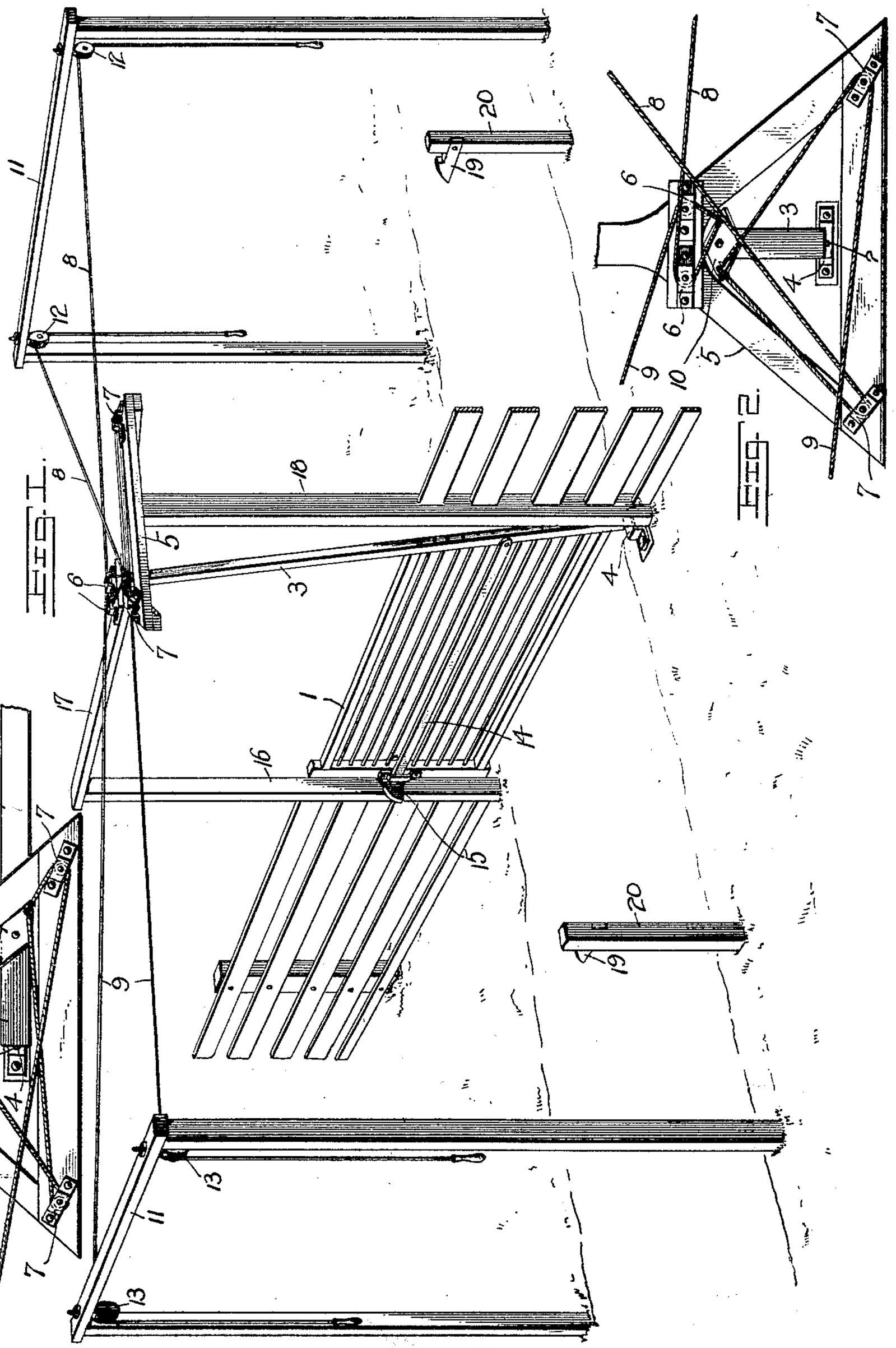

FIG. 1.

FIG. 2.

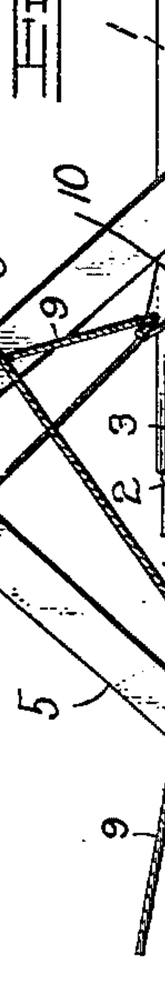

FIG. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM M. PLASTER, OF COTTON, TEXAS, ASSIGNOR OF ONE-HALF TO PLINEY PLASTER, OF COTTON, TEXAS.

GATE.

SPECIFICATION forming part of Letters Patent No. 697,880, dated April 15, 1902.

Application filed November 26, 1901. Serial No. 83,775. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. PLASTER, a citizen of the United States, residing at Cotton, in the county of Grimes and State of Texas, 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 swinging gates and to provide a simple, inexpensive, and efficient one adapted to be opened in either direction and capable of being operated 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 and shown closed. Fig. 2 is a detail plan view of the horizontally-disposed guide or supporting-frame, illustrating the arrangement of the operating-ropes, the gate being arranged as shown in Fig. 1. Fig. 3 is a similar view illustrating the arrangement of the operating-ropes when the gate is open.

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

1 designates a swinging gate which may be constructed in any suitable manner and which is provided at its inner or rear end with a depending pivot or journal and which has an upwardly-extending arm 3. The depending pivot or journal is stepped in a bearing of a suitable bracket or support 4, and the gate is adapted when operated as hereinafter described to be tilted backward to cause it to assume an inclined position, whereby it is caused to open or close automatically. When the gate is opened, it is tilted rearward and laterally toward the side to which it swings, and in closing it is tilted forwardly and laterally to a central point. The arm 3, which extends upward from the back of the gate, may, as illustrated in the accompanying drawings, consist of an extension of the rear bar, and its upper end is arranged within an approximately triangular guide or supporting-frame 5, having a forwardly-tapering opening for the reception of the said upper end of the arm. The forwardly-tapering opening permits the arm to be swung rearward and laterally to tilt the gate, as before described, and it provides a central seat at the front to receive the arm when the gate is in a closed position, as illustrated in Fig. 2 of the accompanying drawings.

Mounted on the frame are front guides 6 and rear guides 7, consisting, preferably, of pulleys arranged in suitable casings and receiving front and rear operating-ropes 8 and 9, arranged in pairs and extending from opposite sides of the frame and connected at their inner adjacent ends with the upper end of the arm of the gate, and the latter is provided at its top with a plate 10, having opposite eyes for the reception of the ends of the operating-ropes. The operating-ropes may be constructed of any suitable material, and the plate 10 is pivoted to the top of the arm and projects therefrom; but any other suitable means may be employed for connecting the operating cords or ropes with the arm of the gate.

The front operating-ropes extend from the arm to the front guide and are then extended across the frame and across each other, as clearly shown in Figs. 2 and 3, and are then extended to suitable supports 11, located at opposite sides of the gate and arranged a suitable distance therefrom to enable the gate to be operated without a horse coming in contact with the same. The support preferably consists of uprights arranged at opposite sides of the roadway and connected by a top bar from which depend pulleys 12 and 13. The rear operating-ropes extend rearward from the arm of the gate to the rear guides, which are located at the rear corners of the opening of the frame, and they are then extended across the frame, crossing each other similarly to the front operating-ropes. The rear operating-ropes, which are pulled to open the gate, extend to the supports 11 and have their outer portions arranged at the right-hand side of the supports, looking toward the gate, and the front operating-ropes, which are employed for closing the gate, extend to the other pulleys and

are arranged at the left-hand side of the supports, looking toward the gate. By this construction teams are permitted to drive to the right, and on approaching the gate at the right-hand side of the road a person is in position for pulling one of the rear operating-ropes and will swing the arm of the gate backward and laterally away from the operator to cause the gate to open from him. After driving through the gateway one of the front operating-ropes is in position to be pulled by the operator for closing the gate. The operating-ropes are provided with suitable grips or handles, and the tilting of the gate disengages or lifts a latch 14 out of engagement with supplemental and main keepers. The main keeper 15 is mounted on a latch-post or upright 16, which supports a top bar 17, extending forward from the guide or supporting-frame 5, and the latter is supported by a rear post or upright 18; but the framework may be constructed in any other desired manner. The supplemental keepers 19 are mounted on short posts 20, located between the supports 11 and the gate. The latch consists of a pivoted bar, and the keepers are beveled to enable the latch to engage them automatically.

It will be seen that the gate is exceedingly simple and inexpensive in construction and that it is adapted to open away from the operator and that it is adapted also to be opened and closed by a person in a vehicle or on horseback. Furthermore, it will be clear that should it be desired to construct a gate opening in one direction only it may be effected by simply changing the position of one of the front and one of the rear operating-ropes. The opening of the frame need then extend only laterally to the side toward which the gate opens, and both of the guides 6 will be arranged at the front of the opening and both of the guides 7 will be located at the back of the opening at the same side of the gate. This will only permit the arm of the gate to be shifted back and forth at one side.

What I claim is—

1. The combination of a frame having a forwardly-tapering opening, guides arranged in pairs at the front and back of the opening, a swinging gate having an arm arranged in the opening of the frame, a pivoted plate mounted on the arm and the front and rear operating-ropes arranged in pairs in the said guides and extending therefrom to the arm of the gate and connected with the plate, said operating-rope extending from the gate in opposite directions, substantially as described.

2. The combination of a horizontal frame having a forwardly-tapered opening, a swinging gate having an arm extending into the opening, pulleys or guides mounted on the frame in pairs at the front and back of the opening, the front operating-ropes arranged in the front guides or pulleys and extended across the frame to opposite sides of the roadway, the rear operating-ropes extending from the arm to the rear guides or pulleys and crossing the frame and extended to opposite sides of the roadway, a pivoted plate mounted on the arm and having the ropes secured to it and means for supporting the outer portions of the operating-ropes, 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.

WILLIAM M. PLASTER.

Witnesses:
J. A. KERR,
J. R. MCADAMS.