J. J. CARRIGAN.

GATE.

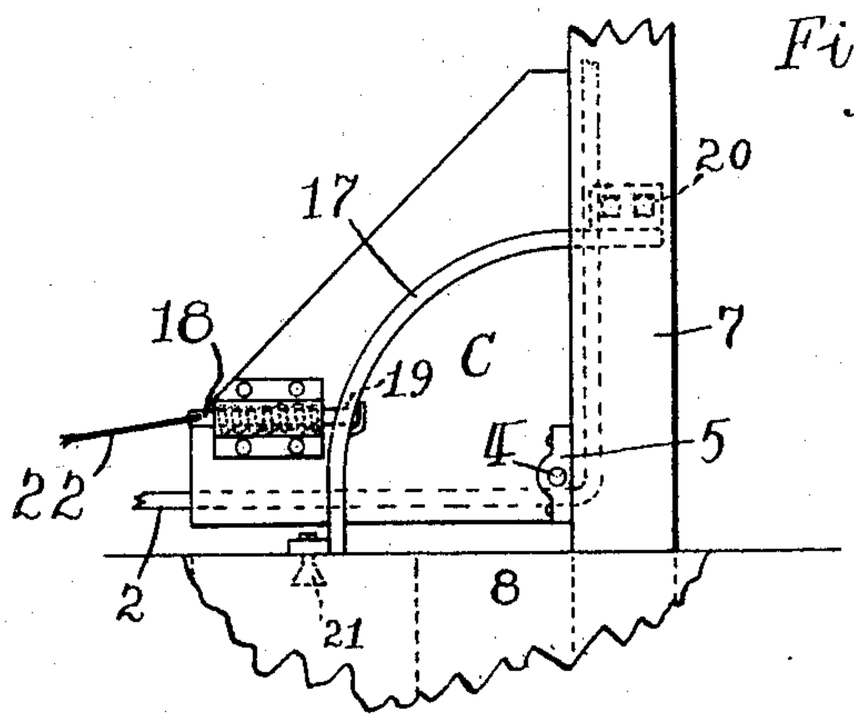
APPLICATION FILED MAR. 27, 1908.

907,006.

Patented Dec. 15, 1908.

2 SHEETS—SHEET 1.

Fig. 3.



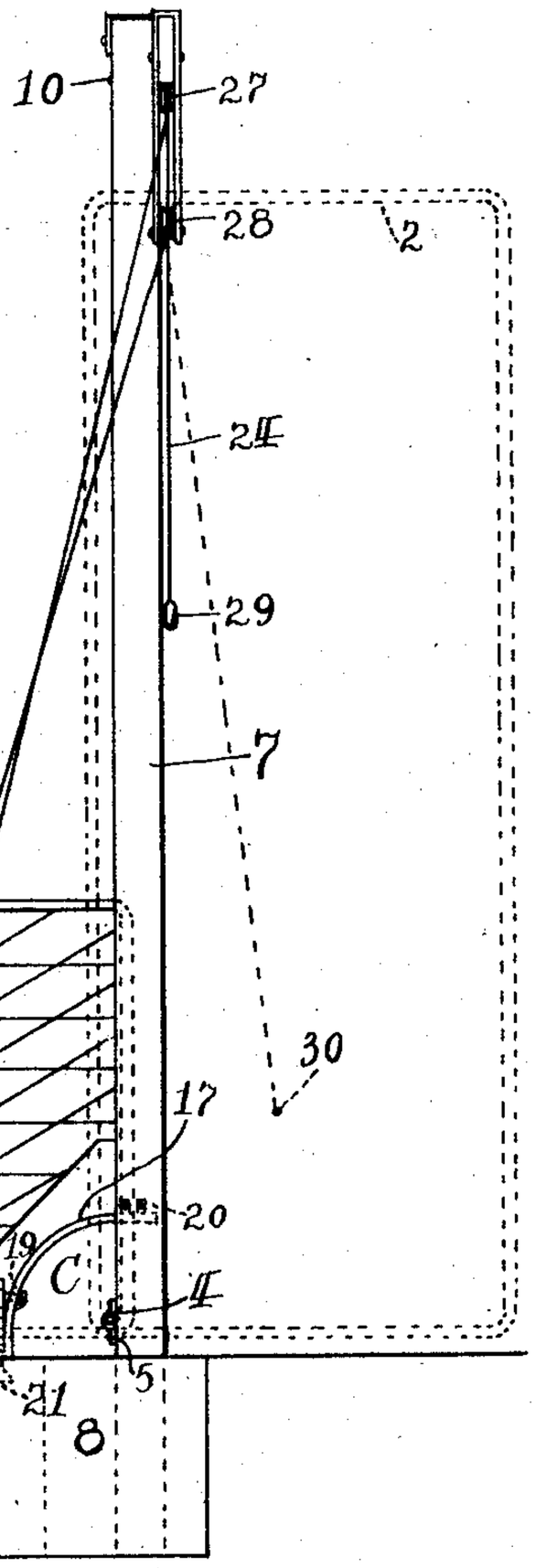
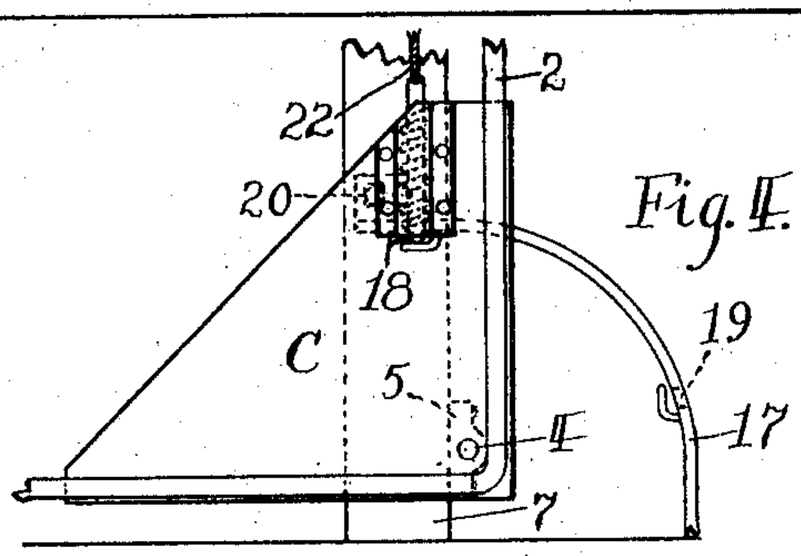


Fig. 1.

Fig. 4.



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R. A. Fischer.

Inventor:
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2 SHEETS—SHEET 2.

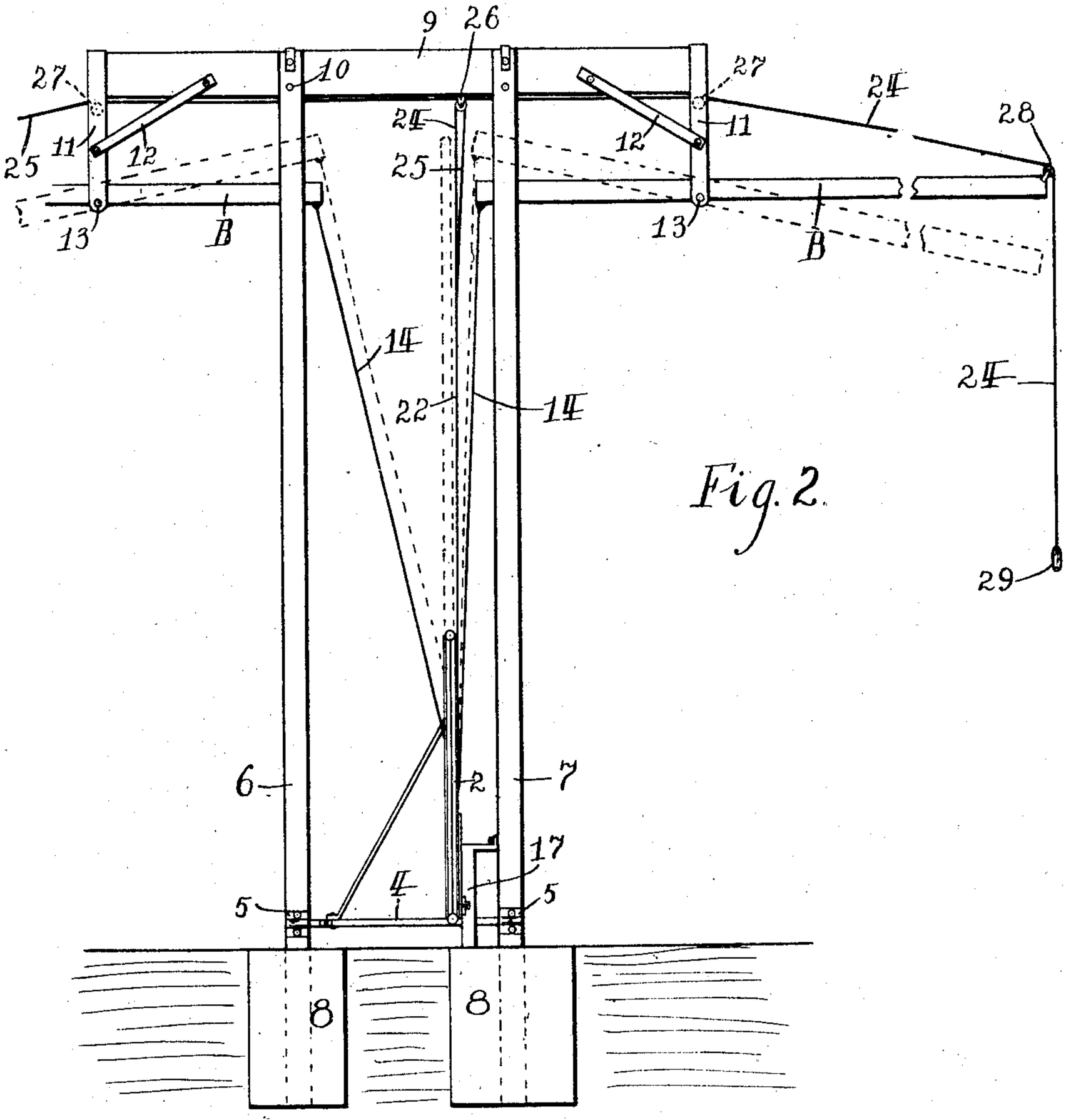

Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES J. CARRIGAN, OF ST. PAUL, MINNESOTA.

GATE.

No. 907,006. Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed March 27, 1908. Serial No. 423,703.

To all whom it may concern:

Be it known that I, JAMES J. CARRIGAN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented a new and useful Improvement in Gates, of which the following is a specification.

My invention relates to an improved gate and is particularly adapted for use on farms or where it is desired to open and close the same without descending from a vehicle when it passes through the gateway.

The primary object of this invention is simplicity of construction and effectiveness in use.

In the accompanying drawings forming part of this specification Figure 1 is a side view of my invention, the broken lines indicating the position of the gate when open; Fig. 2 is an end view of my invention; Fig. 3 is a partial side view showing the locking mechanism for holding the gate in lowered and superior positions, and Fig. 4 is another view similar to Fig. 3 looking at the other side and showing a portion of the gate in superior position.

In the drawings A represents a gate such as used across a roadway and provided with a frame 2 and open mesh work 3 in said frame. The frame as shown, is rectangular in shape and at one of its lower corners is mounted upon a transverse shaft 4, the ends of which are journaled in bearings 5 which are mounted upon a pair of vertical posts or uprights 6 and 7. The lower ends of these posts are secured in concrete foundations 8 which are embedded in the earth, or they may be otherwise supported in position as desired. The upper ends of the posts carry a hanger 9 in the form of a transverse bar which is secured to the posts by means of bolts 10. This hanger extends a suitable distance along one side of the road so as to support a pair of levers B—B which are used to assist in opening and closing the gate from either side when approaching it. Depending from the ends of the hanger 9 are brackets 11 which are reinforced by braces 12. Each lever is pivoted at 13 and its work end is attached to the frame of the gate by a cord 14. The power end of each lever extends a greater distance from its pivot point or fulcrum than its work end so as to more than counterbalance it, thus tending to raise the gate and the work end of the lever and assisting in raising the gate into superior position. The gate in opening swings up into the dotted line position indicated in Fig. 1 and passes below the hanger into a vertical position where it tends to remain of its own accord, the weight of the gate being nearly all on the inner side of the shaft away from the road. The free end of the gate when the latter is closed is held in a slot 15 in the stop post 16.

Extending radially around the shaft on one side of the gate is a curved lock bar 17 forming part of the locking mechanism C. Secured to the frame of the gate is a spring lock bolt 18 which is adapted to engage the lock bar 17 through openings 19 when the gate is in lowered position as indicated by the full lines, or raised into superior position as indicated by the broken lines, in Fig. 1. This lock bar has one end secured to the post 7 by means of bolts 20 and the other to the foundation below said post by the bolt 21. To unlock the gate and open or close it by the same operations is provided a cord 22 running over a sheave 23 on the gate and bifurcated to form two extensions 24 and 25. These extensions run over a double block or sheave 26 which is secured to the lower side of the hanger 9, and travel in opposite directions over sheaves 27 on the brackets 11 and sheaves 28 on the free ends of the levers B—B. The extremities of the extensions depend from the power ends of the levers and are provided with handles 29 so that the operator may grasp the same to open and close the gate from either of its sides.

In operation, to open the gate from either side the handle 29 nearest the operator is pulled down thus withdrawing the bolt 18 from engagement with the lock bar and by continued pulling lifting the gate into superior position where it remains. The point 30 where the cords 14 are attached to the gate is substantially midway between the upper and lower edges of the frame of the gate so that when the gate is open and one of the extensions pulled down after the bolt is withdrawn, the continued pulling upon the cord tilts the gate past its pivot support and allows it to descend by gravity into lowered position.

In accordance with the patent statutes, I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof, but I desire to have it understood that the invention can be carried out by other means and applied to uses other

than those above set forth, within the scope of the following claims.

Having described my invention, what I claim as new and desire to protect by Letters Patent, is:—

1. Apparatus of the class set forth, comprising a gate, a transverse shaft near the lower portion of one end of said gate, a pair of vertical posts between which said shaft is journaled, a bolt carried by said gate, a lock bar attached to one of said posts with which said bolt is adapted to engage and hold said gate locked either in lowered or superior positions, a hanger supported upon the upper ends of said posts, a pair of lever arms pivoted upon said hanger, a cord between the work end of each of said lever arms and said gate, and another cord running over said lever arm and connected with said bolt for withdrawing it out of engagement with said lock bar, the latter cord being adapted to depress the power end of said lever when pulled for simultaneously swinging the gate upon its shaft and withdrawing the bolt from engagement with the lock bar when the gate is opened or closed.

2. Apparatus of the class set forth, comprising a gate, a shaft upon which said gate is mounted, vertical posts between which said shaft is journaled, a lock bolt upon said gate, a lock bar with which said bolt is adapted to engage when said gate is in lowered or superior position, a lever arm carried by said posts, a connection between said gate and lever arm for raising said gate, into superior position or into a position permitting it to descend, and a cord connected with said bolt and extending over said lever arm by which said bolt may be disengaged from said lock bar and said lever tilted down to raise said gate, for the purposes specified.

3. Apparatus of the class set forth, comprising a gate, a shaft upon which said gate is mounted near one of its ends and its lower portion, posts between which said shaft is journaled, a hanger upon the upper ends of said posts, a lever pivotally supported upon said hanger having its work end connected with said gate to raise it into superior position and to raise said gate, when in superior position, sufficiently to allow it to swing down into lowered position, means for locking said gate when in lowered and superior positions, and a connection with said locking means passing over said lever and adapted when pulled to simultaneously open the locking mechanism and swing said gate upon said shaft, for the purposes specified.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JAMES J. CARRIGAN.

Witnesses:
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R. A. FISCHER.