

J. ANDERSON.
GATE.

APPLICATION FILED MAR. 21, 1904.

2 SHEETS—SHEET 1.

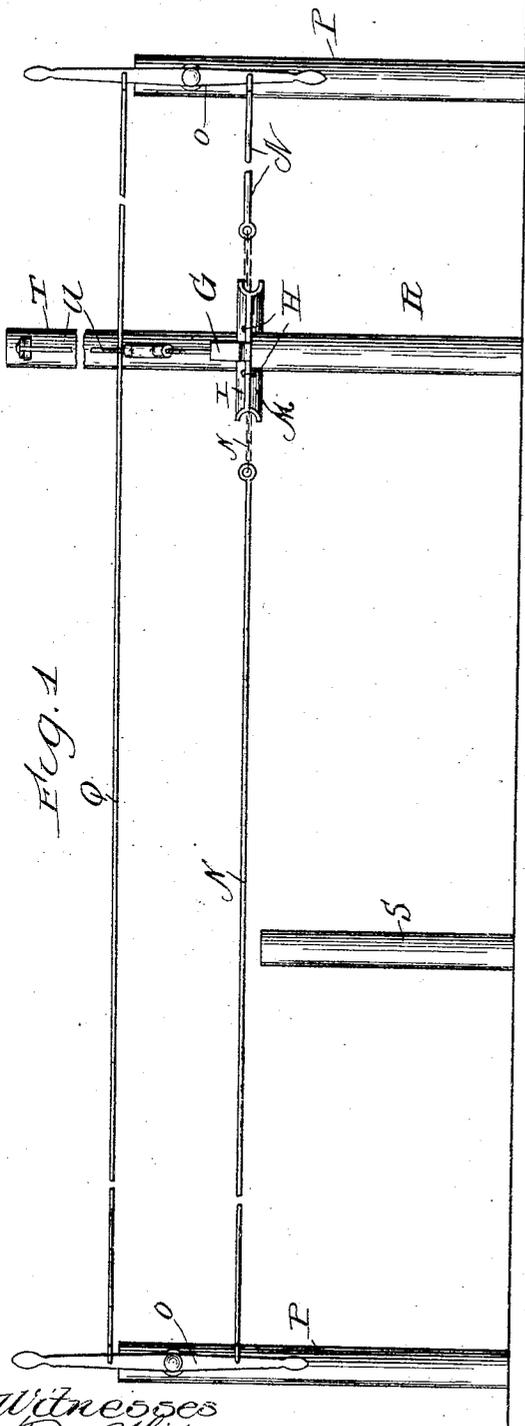


Fig. 1

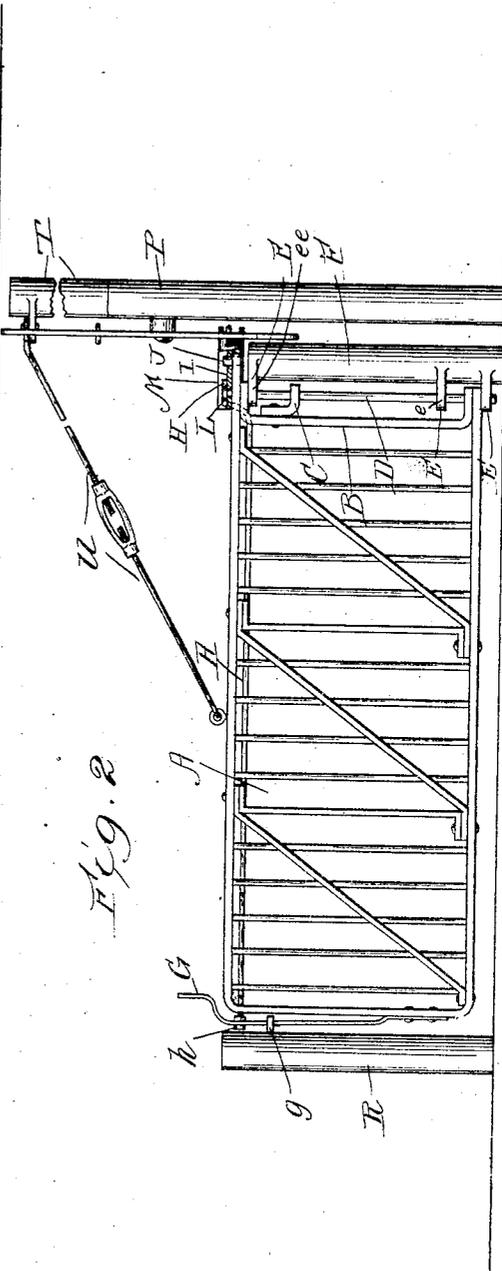


Fig. 2

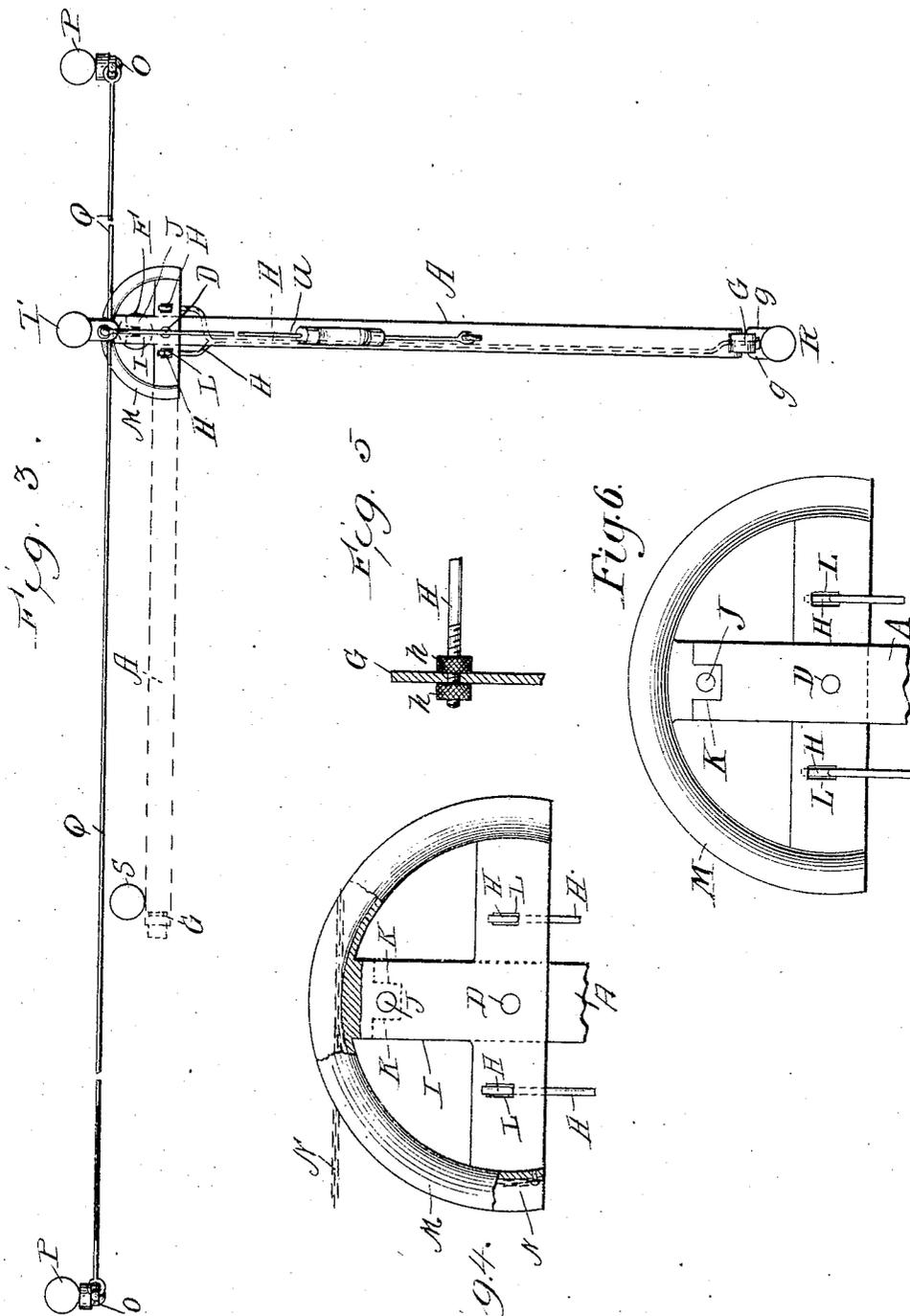
Witnesses
Ray White
Cary B. White.

Inventor
John Anderson
By Morgan & Robinson, Attys.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF CHICAGO, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 786,084, dated March 28, 1905.

Application filed March 21, 1904. Serial No. 199,191.

To all whom it may concern:

Be it known that I, JOHN ANDERSON, a citizen of the United States, whose residence and post-office address is at No. 5520 Ohio street, in the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Gates, of which the following is a specification.

My invention relates to that class of gates used mostly in agricultural districts for inclosures which are opened occasionally for the passage of wagons, carriages, and other vehicles; and the object of my invention is to provide a gate which can easily be opened and closed in either direction by any person on foot, seated in a vehicle or on a load of any reasonable height, and that can be raised in the winter to swing clear of the snow. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation of the gate and operating mechanism, being a full view of the operating-handles and connected wires, which are broken to indicate that they are of greater length than shown. Fig. 2 is a side view of the gate in a closed position. Fig. 3 is a plan view of the gate and operating mechanism, the dotted lines showing the open position of the gate. Fig. 4 is an enlarged plan view of the circular arc lever forming part of the operating mechanism. Fig. 5 is a detail of the locking spring and bar. Fig. 6 is a reverse view of Fig. 4, showing the forked end of the top rail of the gate, which is shown in dotted lines in Fig. 4.

Similar letters refer to similar parts in the several views.

The gate A is made of any suitable material, design, or size. The part B, together with the top and bottom rail of the gate and the angle-plate C, form the hinge part of the gate. These parts are pierced to receive the pivotal bar D, which is held in the lugs E on the post F, as shown in Fig. 2. In this figure the gate is shown in the lowest position. When raised to the highest position, the bottom rail rests on the lug *e* and the angle-plate C rests on the lug *e e*. This change is made by the withdrawal and reinsertion of the pivotal bar

D. At the free end of the gate a flat spring G is affixed. This spring is adjustably attached to and operated by a bar H, which is supported in a horizontal position below the top rail of the gate. The end of this bar passes through the spring G, which is held and adjusted on the bar by the two nuts *h* on the threaded end of the bar.

Attached to the top rail of the gate by the pivot-bar D is a circular arc lever I. This lever is provided with an operating-pin J, which projects down to the forked end K of the top rail of the gate. This fork is sufficiently large to permit a limited side movement of the pin J and a limited rotation of the lever I. In the lever I are two apertures L, adapted to receive and hold the ends of the spring-bar H. The circular arc of this lever is in the form of a grooved rim M, adapted to receive and hold the operating chains or cables N, one end of each of these cables being attached to the lever, the other ends being connected with extensions attached to the operating-levers O, which are pivotally supported on posts P, which are set at the required distance from the hinge-post F and a little to the rear, as shown in Fig. 2. Above the operating chains or cables N and attached to the levers O is a tension rod or cable Q, which holds the cables N taut. Set at the required distance from the post F are gate-posts R and S. The post R is arranged to hold the gate closed at right angles to the operating-cables N, and the posts S are arranged to hold the gate in the open position in either direction. Each of these posts is provided with a suitable catch to engage and hold the spring G. Directly back of the hinge-post F is an auxiliary post T, to which a suspension-rod U is pivotally attached at one end, the other end of said rod being linked to the top rail of the gate.

When the gate is constructed and erected as described and shown, its operation is as follows: The gate being shut and held fast by the spring G and catch *g*, if the person desiring to open the gate is seated in a low vehicle the lower part of the lever O on either side of the gate can either be pushed or pulled, as may be required by the position of the op-

erator. If the person be in a high vehicle or on a high load, the higher part of the operating-levers can be seized and the gate opened in either direction.

5 When the operating-levers are moved to open or close the gate, the motion is communicated by the cables N to the lever I, which because of the free play of the pin J in the aperture K is rotated sufficiently to draw the
10 spring-bar H and spring G from contact with the catch g. The pin J then comes in contact with the side of the aperture K and swings the gate on the pivotal bar D.

What I claim, and desire to secure by Letters Patent, is—

1. In a gate of the kind described, the combination comprising the gate A having a hinge-bar B and plate C; a supporting-post F having lugs E and a connecting pivotal bar D;
20 a circular arc lever I connected with gate A by the bar D and pin J and having a grooved rim M; a pair of chains N attached to said lever in said rim; a pair of operating-levers O connected with said chains and pivotally
25 supported on a pair of posts P; a tension-rod Q connecting said operating-levers; a spring-bar H connecting the circular arc lever I with a spring G affixed to the free end of the gate
30 A and means for adjusting said spring on said bar, substantially as described and for the purposes specified.

2. In a gate of the kind described, the combination comprising a gate A hinged to a sup-

porting-post F; a circular arc lever I pivotally attached to said gate, connected thereto
35 by a pin J, a connecting-rod H attached to the lever I, and a spring G attached to said gate and the rod H; a pair of cables attached to the lever I; a pair of operating-levers connected to said cables; a pair of posts P sup-
40 porting said levers, and a tension-cable connecting said levers, substantially as described and for the purposes specified.

3. In a gate of the kind described the combination comprising a gate A and supporting-
45 post F; a circular arc lever I pivotally attached to the gate A by a pin D and connected with the forked end K of the top rail of said gate by an operating-pin J; and a rod H
50 attached to said lever, through apertures L in said lever; and means for operating said lever and said rod; and a spring-catch attached to said rod, substantially as described and for the purposes specified.

4. In a gate of the kind described the combination comprising a gate A and means for
55 supporting said gate; a circular arc lever I pivotally connected with said gate, and having an operative pin J; and a rod H loosely attached to said lever, and means for oper-
60 ating said lever and said rod substantially as described and for the purposes specified.

JOHN ANDERSON.

Witnesses:

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