

No. 626,682.

Patented June 13, 1899.

A. FIELD.
GATE.

(Application filed Aug. 8, 1898.)

(No Model.)

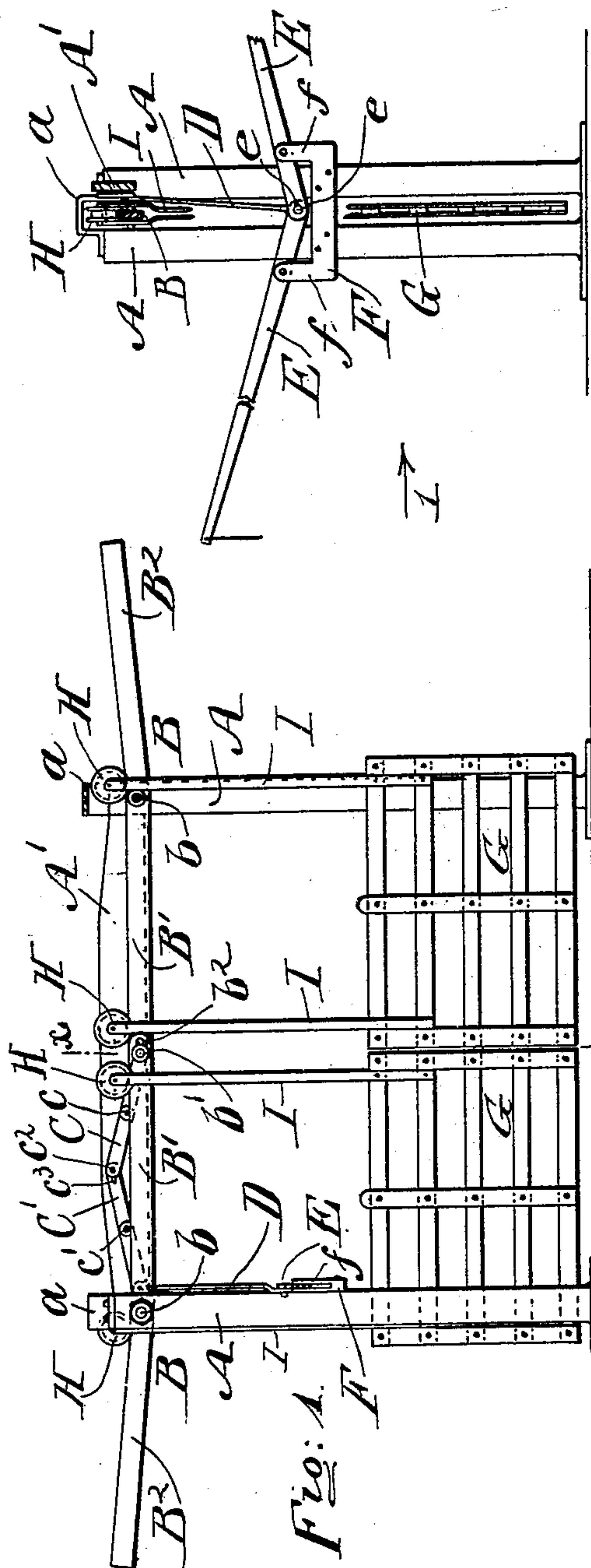


Fig. 1.

Fig. 3.

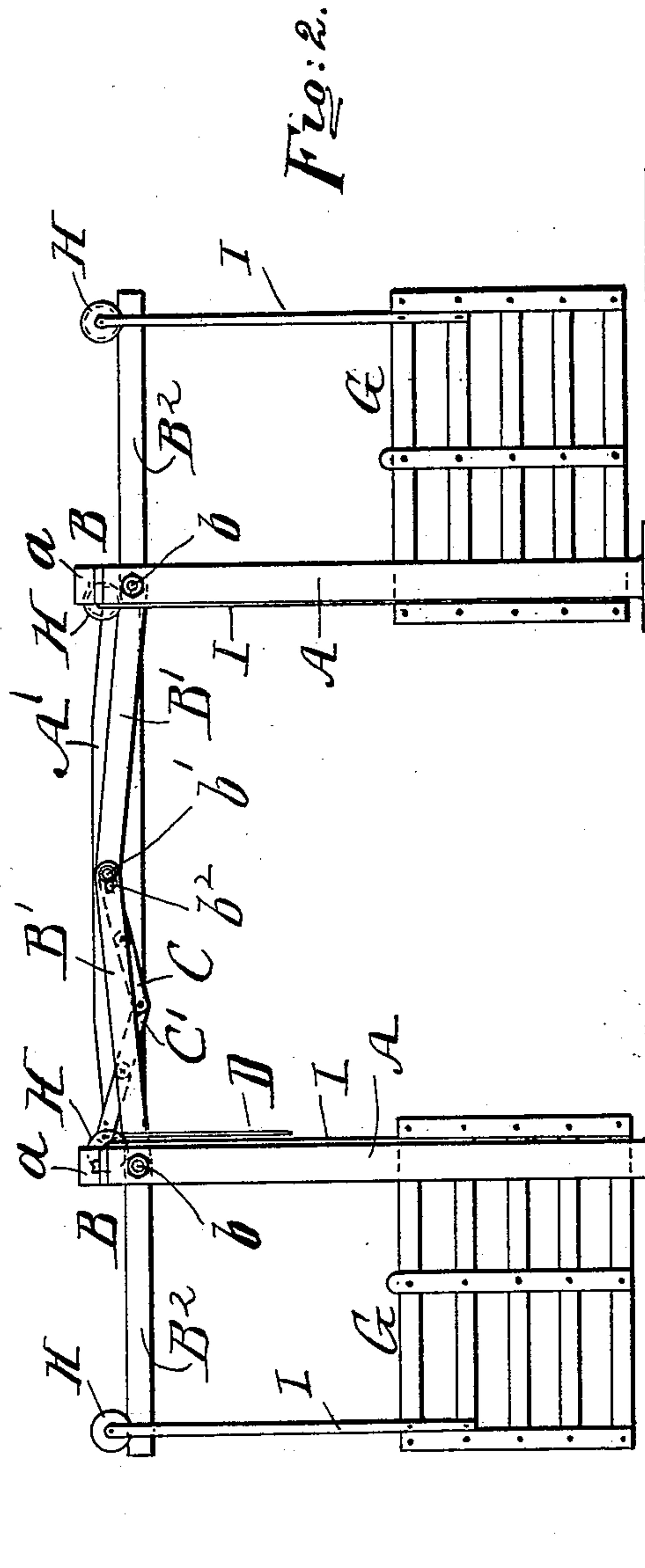


Fig. 2.

Witnesses
P. Albertine
M. G. McLean

Inventor
Adelbert Field,
By his Attorneys
Clark Deemer & Co.

UNITED STATES PATENT OFFICE.

ADELBERT FIELD, OF PORTLAND, OREGON.

GATE.

SPECIFICATION forming part of Letters Patent No. 626,682, dated June 13, 1899.

Application filed August 8, 1898. Serial No. 688,066. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT FIELD, a citizen of the United States, and a resident of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Gates, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to improvements in gates and means for hanging, opening, and closing them; and the object thereof is to provide a structure of this class which is adapted to be successfully operated at a distance, whereby a mounted person approaching the closed gates may open them without the necessity of dismounting and he may also readily close the gates again after passing through the gateway.

The device is durable, simple in construction, and inexpensive, and by its use gateways may be constantly maintained in a closed condition without entailing much trouble on the part of the persons passing therethrough.

The invention will be hereinafter fully described and specifically set forth in the annexed claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of my improved device, showing the gates closed. Fig. 2 is a similar view showing the gates open, and Fig. 3 is a vertical sectional elevation taken on the line $x x$ of Fig. 1. In this view the suspended hanger for carrying the gates is partly broken away for the purpose of clearly showing the mechanism for opening the gates.

In the practice of my invention I provide, primarily, an arched gateway comprising four posts A and a cross-beam A', each pair of posts being held together at their top ends by means of an arched strap a for the purpose of adding rigidity to the structure. Pivotally hung between each pair of posts, at the upper portions thereof, by means of bolts b are rails B, comprising arms B' and B², extended at an angle from each other, the angles being so arranged that when the gates are closed the arms B' are in the same horizontal line and when the gates are open the arms B' are extended at an angle from each other down-

wardly from the center of the arch, the arms B² in this case being in the same horizontal line, whereby the gates may be maintained in a horizontal position both when they are open and closed. The adjacent ends of the arms B' are connected to each other by means of a bolt b' , and one of said arms has a slot b^2 therein to permit the arms to move in the arc of a circle. As a means for operating the movable rails B, I provide two armed levers C and C', which are respectively pivoted to the cross-beam A by means of bolts c and c' . The lever C is connected to the bolt b' , and the end of its opposite arm is connected to the lever C' by means of a pivot c^2 , the arm of the lever C' connecting therewith having a slot c^3 therein to permit of free smooth motion of the levers. The opposite end of the said lever C' is pivotally connected to a rod D, the lower end of which said rod is pivoted to a bolt e , which connects the inner ends of two levers E, which are extended, respectively, inwardly and outwardly along the line of the roadway leading through the gateway. These said levers are pivotally attached to vertical arms f of a hanger F, secured to one set of posts A, and the ends of the levers E where they connect with the rod D are supplied with slots e' to permit the levers to move freely in the arc of a circle. These said levers E are of any desired length, and they are adapted to swing the rails into the respective positions illustrated by Figs. 1 and 2 of the drawings, whereby the gates may be readily operated by a mounted person as he approaches them.

The gates G are suspended from rollers H by means of rods I, the rollers being supplied with annular grooves which contact with the rails, whereby lateral motion in the process of operating them is prevented.

In the operation and use of the device—say the gates are closed, as illustrated in Fig. 1 of the drawings—a person approaching in the direction of the arrow 1, Fig. 3 of the drawings, will pull downwardly upon the free end of the lever E, and this movement will force the rod D upwardly and operate the levers C and C' to a sufficient extent to throw the arms B' of the rails into the position illustrated by Fig. 2 of the drawings, thus permitting the gates to move by gravity until they are sus-

pended from the arm B², as shown by Fig. 2 of the drawings. After the person has passed through the gateway a reverse movement of the opposite lever B will close the gates, as shown by Fig. 1 of the drawings.

By arranging the compound lever C C' upon the head-beam A' and providing connections therefrom, preferably the rod B and levers E E, operative from either point of approach, I am able to operate a double gate G G by a very compact and not unsightly mechanism, the lever C C' occupying very little vertical space—in fact, no more than the depth of the beam A', which conceals it from one point of approach and being scarcely noticeable against the beam from the opposite direction, and as the levers E E range about parallel with the road they also are scarcely noticeable from either direction.

I do not confine myself to the specific details of mere mechanical construction as herein shown and described, as it is obvious that under the scope of my invention I am entitled to slight structural variations.

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

In a gate, the combination with opposite uprights and a connecting cross-beam, of two obtuse-angle rails fulcrumed to this structure and coupled together at their inner ends, two gates hung one on each rail for lateral opening and closing, a compound lever C, C' fulcrumed at c, c' to the cross-beam and connected to the coupling-point of the gate-rails, a rod D coupled to lever C', and a pair of levers E, E fulcrumed to one of the uprights and coupled at e to each other and to the rod D, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 5th day of August, 1898.

ADELBERT FIELD.

Witnesses:

M. G. McLEAN,
L. J. McGHIE.