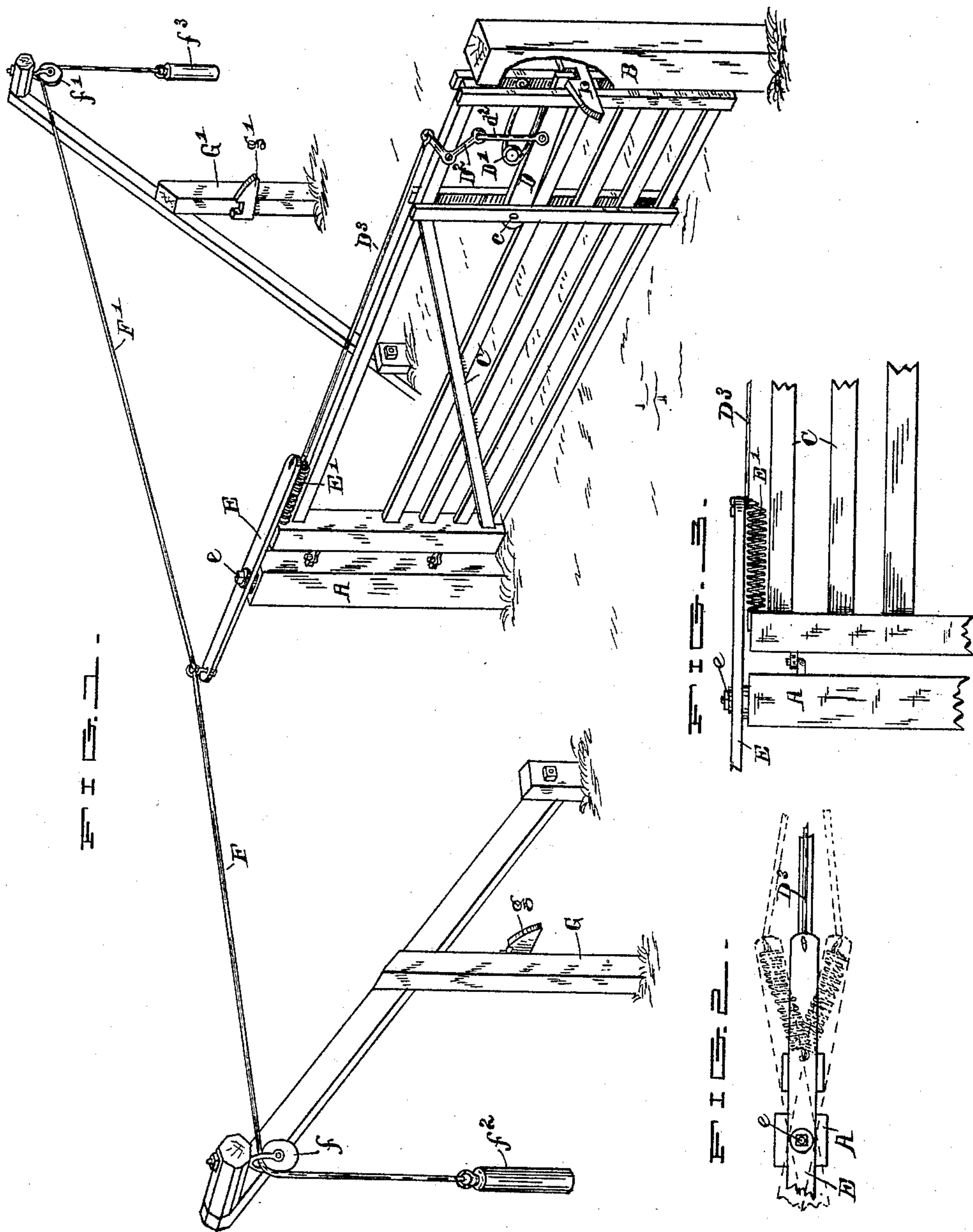


(No Model.)

P. M. FUDGE.
AUTOMATIC GATE.

No. 462,042.

Patented Oct. 27, 1891.



WITNESSES.

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UNITED STATES PATENT OFFICE.

PETER M. FUDGE, OF LADOGA, INDIANA.

AUTOMATIC GATE.

SPECIFICATION forming part of Letters Patent No. 462,042, dated October 27, 1891.

Application filed June 6, 1891. Serial No. 395,383. (No model.)

To all whom it may concern:

Be it known that I, PETER M. FUDGE, a citizen of the United States, residing at Ladoga, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Automatic Gates, of which the following is a specification.

My said invention relates to that class of gates which are adapted to be opened or closed in either direction by pulling on a cord or rod which operates the gate from a position convenient for a person passing through, usually a rider or a driver of a vehicle, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a gate with its post and mechanism embodying my said invention; Fig. 2, a detail plan view of a portion of said mechanism, and Fig. 3 a detail side elevation of the same.

In said drawings, the portions marked A and B represent the ordinary gate-posts; C, the gate structure; D, the gate-latch; E, the lever by which the gate is operated; F and F', cords running from said lever in either direction to a position convenient of reach to the operator, and G G' the posts against which the gate swings when opened. The post A sustains the gate, which is hinged thereto in the usual or any desired manner. The post B carries the catch *b* for the gate-latch, with which said latch is adapted to engage as the gate swings into closed position from either direction. The gate C is mounted upon the post A by suitable hinges so constructed as to permit said gate to swing in either direction. The latch D is pivoted to the gate C by a pivot *c* and extends through the front upright of said gate, being adapted to engage with the catch *b* on the post B. A spring D', interposed between the top of said catch and a fixed bearing-point above, operates to hold it down and insure its engagement with said catch. A bell-crank D² is pivoted to the gate above the latch, and said latch is connected to one arm thereof by a link *d*². To the other arm of said bell-crank is connected a rod, wire, or cord D³, which runs back and is connected to the forward end of the lever E. The lever

E is secured to the top of the post A (or a cap thereon) by means of a vertical pivot *e*, which pivot is substantially in line with the hinge-pintles. Said lever extends back a sufficient distance from its pivot to secure sufficient leverage to enable it to be easily operated, its forward end being of sufficient length to throw the gate and through the rod or wire D³ disengage the latch, as before described. To the forward end of said lever one end of a spring E' is connected, the other end of said spring extending back beneath said lever and being secured to the rear upright of the gate. By this arrangement the tension of said spring operates to hold the lever nearly in line with the gate when its rear end is released from the operating force, thus insuring that it will be in position at all times to be operated by either pull. The cords F and F' are connected to the rear end of the lever E and run in each direction therefrom and over pulleys *f* and *f'*, suitably supported to positions which will be convenient of reach to those approaching the gate from either side. Small weights *f*² *f*³ are preferably hung to the ends of these cords, which serve to keep them taut when not in use and as handles convenient for the operator to seize when the gate is to be operated. The posts G G' are arranged in position to stop the gate when opened in either direction, being provided with catches *g g'*, respectively, which engage the gate-latch as the gate is swung back. The gate being closed, as shown in Fig. 1, and it being desired to open the same, one of the cords F or F' is pulled, which operates to pull the rear end of the lever E toward the operator, throwing its forward end in the other direction, pulling back the rod or wire D³, connected with its forward end, which, through the bell-crank and connecting-link, lifts the gate-latch. The forward end of said lever being thrown to one side by this operation also operates to distend the spring E', thus pulling against the forward portion of the rear gate-post, to which it is secured in the direction in which it is desired to open the gate. The lever also pulling in the same direction through the rod D³ the gate is quickly opened and swung back against one of the posts G or G', its latch engaging with the catch thereon and securing said gate in the opened position. The cord

being released from the pull which operated it, the spring E' operates, as before stated, to return the lever E to a position substantially in line with the gate. The operator, having
5 passed through the gate, desiring to close it, seizes the cord upon the opposite side and, pulling downward thereon, operates to throw the lever E in the opposite direction, disengaging the latch through the rod D³ and distending
10 the spring E', which operates, together with the pull from the front of the gate through the wire D³, to close the gate against the post A', the latch engaging with the catch thereon. It will be seen that the operation of the spring
15 E' is not only to readjust the position of the lever E to the position it should occupy before being operated, but that its force is exerted while the latch is being disengaged upon the gate in the direction in which it is desired
20 it shall open, and thus operates with its entire force immediately upon the latch becoming disengaged to pull said gate in the desired direction, thus materially assisting in the operation and starting the gate quickly in the
25 desired direction.

Having thus fully described my said inven-

tion, what I claim as new, and desire to secure by Letters Patent, is—

The combination, in a gate, of the supporting-post, the gate hinged thereon, the latch 30 pivoted to the front end of said gate and adapted to engage with a suitably-formed catch supported in proper position, a bell-crank pivoted to said gate above said latch, one arm of which is connected thereto by a 35 link and the other arm of which is connected to a rearwardly-extending rod, a lever pivoted to the top of the gate-post, its forward end being connected to said rod, a spring secured to the forward end of said lever at one end 40 and to the rear gate upright at the other end, and cords secured to the rear end of said lever and running in each direction therefrom to positions convenient of reach on each side 45 of the gate, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 2d day of June, A. D. 1891.

PETER M. FUDGE. [L. S.]

Witnesses

E. W. BRADFORD,
FRANK W. WOOD.