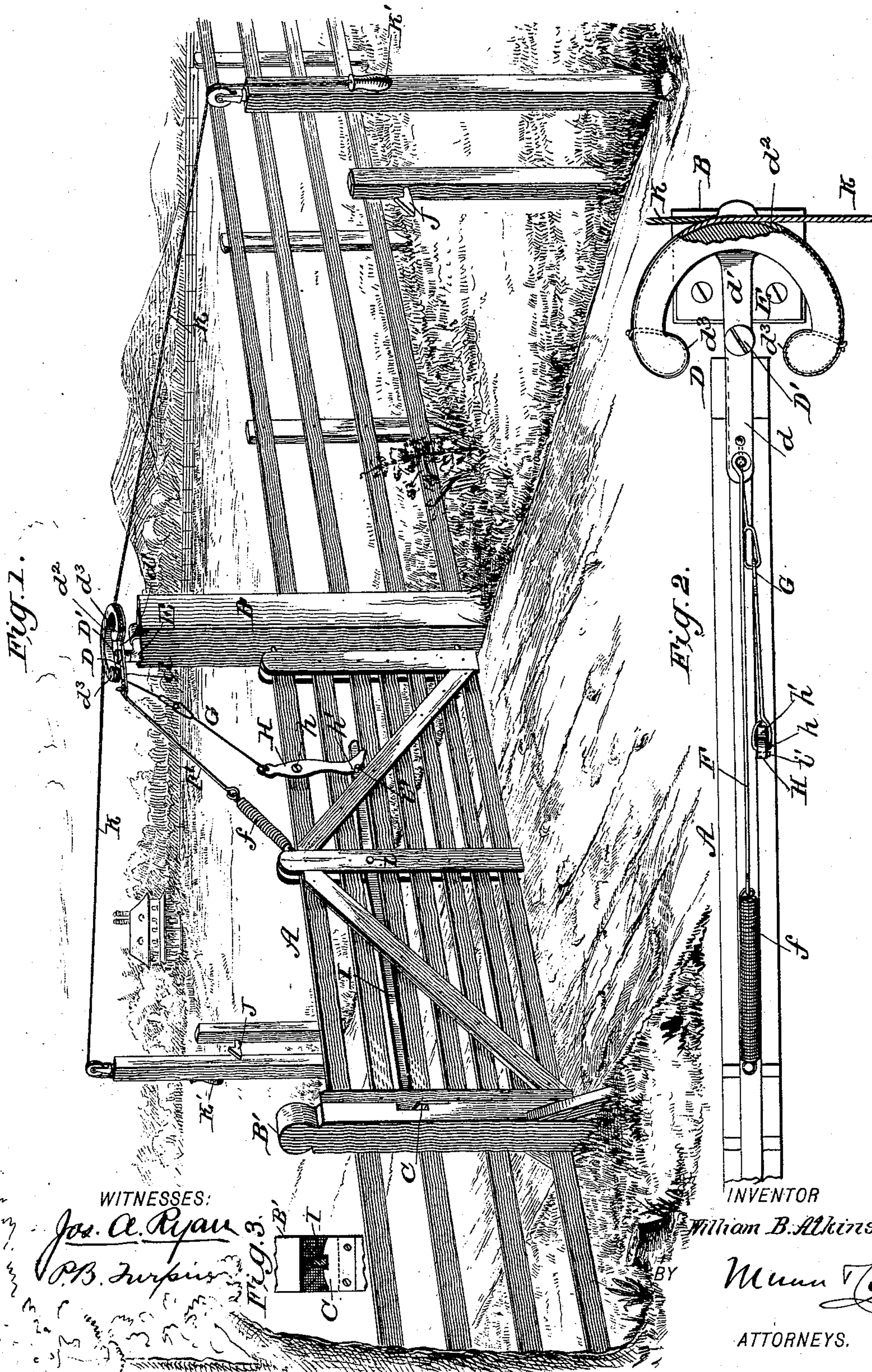


(No Model.)

W. B. ATKINSON.
GATE.

No. 540,533.

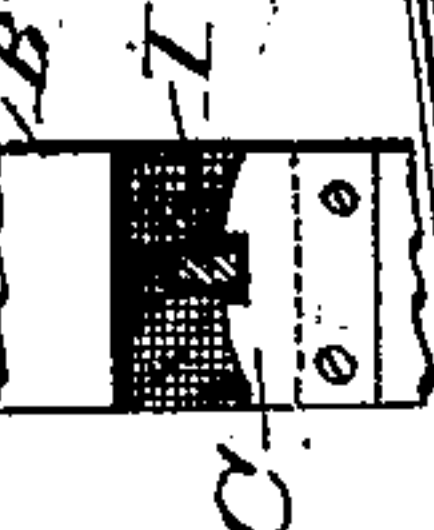
Patented June 4, 1895.



WITNESSES:

Jos. A. Ryan
P. B. Surpin

Fig. 3.



INVENTOR

William B. Atkinson

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM BROWNLOW ATKINSON, OF BOWLING GREEN, KENTUCKY.

GATE.

SPECIFICATION forming part of Letters Patent No. 540,533, dated June 4, 1895.

Application filed December 13, 1894. Serial No. 531,685. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BROWNLOW ATKINSON, of Bowling Green, in the county of Warren and State of Kentucky, have invented
5 a new and useful Improvement in Gates, of which the following is a specification.

My invention is an improvement in gates and particularly in those automatically operated gates which open in the opposite direction from that in which the person approaches and the invention consists in certain novel constructions, combinations and arrangements of parts as will be hereinafter described and pointed out in the claims.

15 In the drawings, Figure 1 is a perspective view of my gate. Fig. 2 is a top plan view thereof, and Fig. 3 is a detail view of the latch-seat.

20 The gate A and its posts B B' may be of ordinary construction, the gate being suitably hinged to the post B and the post B' being provided with a suitable latch seat C for engagement by the latch on the gate, such seat being constructed to permit the movement of the
25 latch in and out in either direction of movement of the gate.

The hinge post B extends above the gate A and supports the main lever D which is pivoted at D' preferably upon a bracket E fixed
30 to the top of the hinge post. This lever D has an arm \bar{d} which projects over the gate and may be termed the forward arm and it also has a base or rearwardly projecting arm \bar{d}' whose edge \bar{d}^2 is curved corresponding to the
35 segment of a circle and at the ends of said curved edge I prolong the curved surface by inward or return bends \bar{d}^3 . A connection F extends between the forward arm \bar{d} and the gate and yields or springs longitudinally being to such end formed with a spring section
40 \bar{f} so it exerts a lifting tendency upon the gate thus preventing its sagging and easing its movements. A connection G preferably one in linked sections as shown extends between
45 the main lever and the latch lever H and connects with said main lever at a point between the pivot of said main lever and the point where the connection F joins with said main lever so that considerable tension is exerted
50 upon the gate before the latch has been entirely released, thus insuring a quick opening of the gate the instant the latch is freed.

The latch lever H is pivoted at h to the gate and has at its lower end a cam like portion h' engaging a projection i' on the latch I which
55 latch is pivoted at i . Now if, in operation, the main lever be swung from normal position to one or the other side its movement will first operate the latch lever to release the latch and will then swing the gate open, the latch after
60 the gate has been moved in either direction from the latch post being released by the slacking of connection G so that the latch is in adjustment to engage with the catches J arranged in position to hold the gate open. 65

In operating the main lever I provide pull
cords K K leading along the road on opposite
sides of the gate and having weighted handles
on their ends depending from suitable guides.
At their other ends the cords K connect with
70 the main lever in the manner I will now describe. Thus the cords or ropes approaching from the opposite sides of the gate extend along the curved surface of the lever to the side of the said surface opposite that from
75 which they approach around the inturned end of the lever to the inner end thereof and are secured preferably by passing them through openings at such points and knotting them as shown. By this construction the cords
80 from either side when drawn upon can move the main lever to its full extent to secure the complete opening of the gate in both directions and to insure its movement to a position
85 to engage the catches at the side of the roadway. This curvature of the rear arm of the lever also renders the action of the operating cords thereon smooth and even, avoiding any sudden jars and strains.

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

1. The combination of the gate and its latch, the latch lever having a portion engaging said latch, the main lever the gate operating connection between said main lever and gate
95 such connection including a spring the connection between the main lever and the latch lever, the latter connection being united to the main lever at a point between the juncture of the gate operating connection with said
100 main lever and the pivot of the latter and the operating cords or the like substantially as and for the purposes set forth.

2. The combination of the gate and its latch, the main lever having a rear arm formed with a curved rear edge and having return bends at the ends of said curved edge the operating
5 cords or the like connected with said lever at the inner ends of said return bends, the connection between the forward arm of the main lever and the gate such connection having a spring section substantially as described, the latch lever and the connection between the latter and the main lever all substantially as and for the purposes set forth.

WILLIAM BROWNLOW ATKINSON.

Witnesses:

FRANK E. COOKSEY,
JNO. G. COOKE.