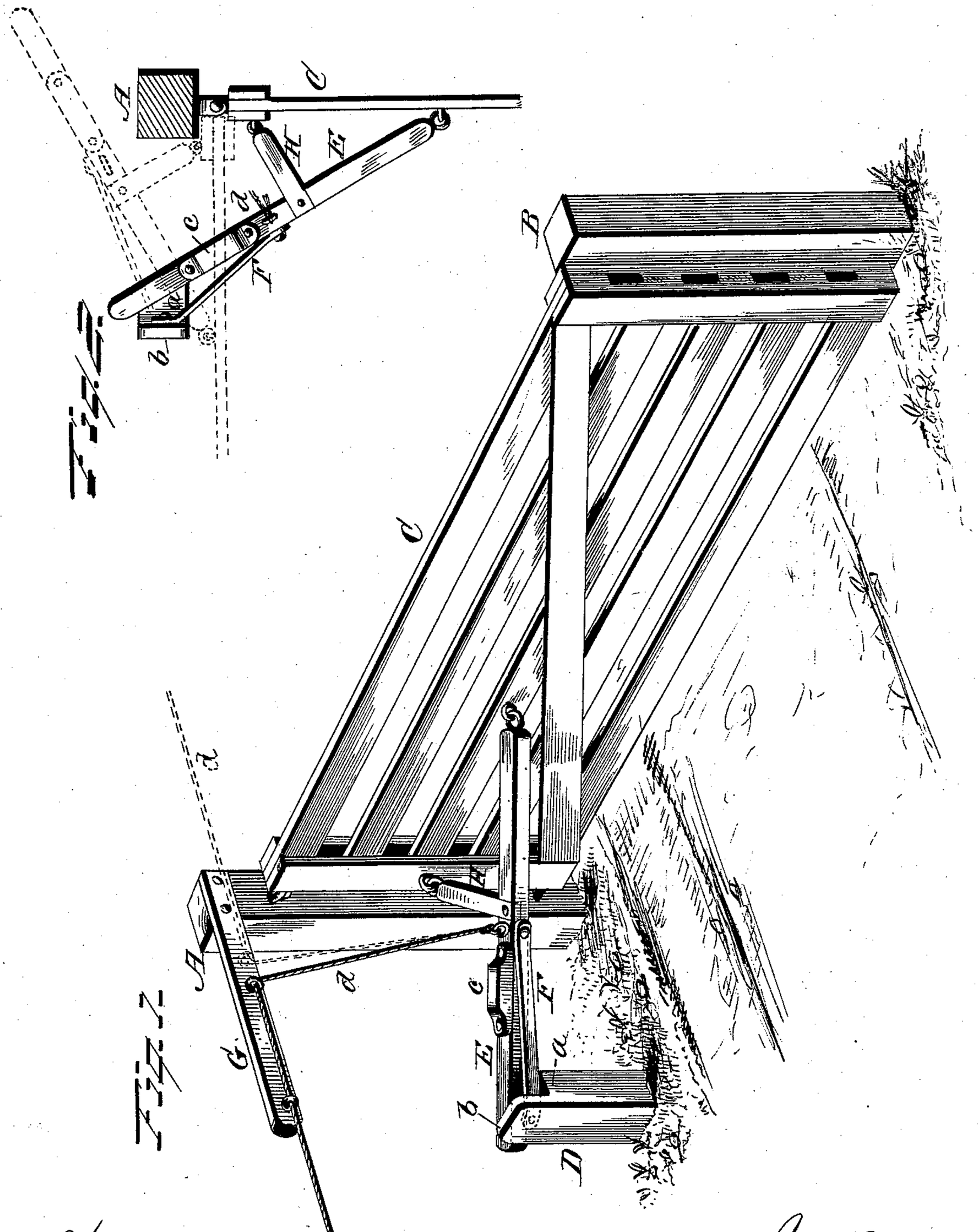
(No Model.)

W. WISE.

OPERATING MECHANISM FOR GATES.

No. 534,186. Patented Feb. 12, 1895.



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UNITED STATES PATENT OFFICE.

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OPERATING MECHANISM FOR GATES.

SPECIFICATION forming part of Letters Patent No. 534,186, dated February 12, 1895.

Application filed October 1, 1894. Serial No. 524,625. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WISE, a citizen of the United States, residing at Yellow Creek, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Operating Mechanism for Gates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of the present invention is to provide a simple and effective means for operating road or farm gates of that class which are hinged to the gate-post and adapted to swing thereon, and the invention consists in the mechanism constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective view of a hinged gate showing it in a closed position and my improved operating mechanism; Fig. 2, a detail plan view showing the operating mechanism in the position it will assume when the gate is closed or open, said positions of the mechanism and gate being shown in full and dotted lines respectively.

In the accompanying drawings A B represent the two posts of the usual construction, and C the gate which is hinged to the former mentioned post in any well known manner, said gate being of any desirable form and construction best adapted to the purpose. A short post D secured in the ground on a line with the post A is formed at its upper end with a seat *a* and an extension *b*. The seat *a* is to provide a support to the outer ends of a lever E and the locking-bar F, which latter is preferably of metal and is pivoted at its outer end to the extension *b* and its inner or opposite end to the lever E. The lever has connected thereto an arm H, and said arm and lever at their inner ends are hinged or otherwise loosely connected to the gate C.

The lever E is provided with a weight *c* which weight is connected thereto away from the center of the lever or beyond the point where said lever connects with the locking-bar.

Suitable cords or ropes *d* connect with the lever E at a point on line with the inner end of the locking-bar, said cords or ropes extending up and connecting with the horizontal beam G upon the upper end of the gate-post A and upon opposite sides thereof. I have shown only one of these cords or ropes in full lines and the other in dotted lines. I may connect them with the beam in any suitable manner by passing through eyes or over pulleys secured to the beam. These cords are for the purpose of operating the mechanism which opens and closes the gate and for convenience the cords or ropes may be provided at their ends with pulls or handles in the usual manner.

There are several features which are essential to the perfect operation of the gate and to rendering the gate self-locking without the necessity of the usual latch upon the free end thereof.

It is important that the lever E connect with the gate at two points and to attain this object the arm H is provided which forms an angular extension to the lever. It is also essential that the weight *c* upon the lever be on one side of the pivoted connection of the locking-bar F with the lever, and that the cords or ropes *d* be attached to the lever at a point between the weight and the arm H in order to render the device automatically operative after the lever has been raised a certain distance. The locking-bar is also an essential feature of the invention and is of importance in locking the lever and also the gate in an open or closed position which dispenses with the usual latch upon the gate.

When the gate is in a closed position, as shown in Fig. 1 of the drawings, and it is desired to open the gate from either side thereof, the cord or rope upon that side is pulled and the locking-bar and lever raised to about a right angle to each other, when the momentum of the gate will carry the lever over the dead center and the gate will be fully opened, as shown in dotted lines of Fig. 2 of the drawings. The gate is now locked in an open position by means of the locking bar and the weight upon the lever. After passing through, the person pulls the opposite cord or rope, which will bring the lever back to the angle above referred to and thereby partially close the gate when the momentum thereof, assisted by the weight on the lever, will bring

the lever and locking-bar to the position shown in Fig. 1 of the drawings and the locking bar will serve to keep the gate closed without the use of any latch.

I have shown ropes or cords connected to the lever for operating the gate, but in place thereof an arrangement of levers may be substituted or any suitable and well known means may be employed for this purpose as found most preferable.

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

An improved mechanism for operating swinging gates, consisting of a lever having an arm rigidly connected thereto and the lever and arm pivoted or loosely connected to the gate, a locking-bar pivoted to said lever and to a short post in the ground, a weight upon the lever, and suitable means connecting with the lever between the weight and arm for operating it, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM WISE.

Witnesses:
WM. TERRY,
AARON WINTERS.