

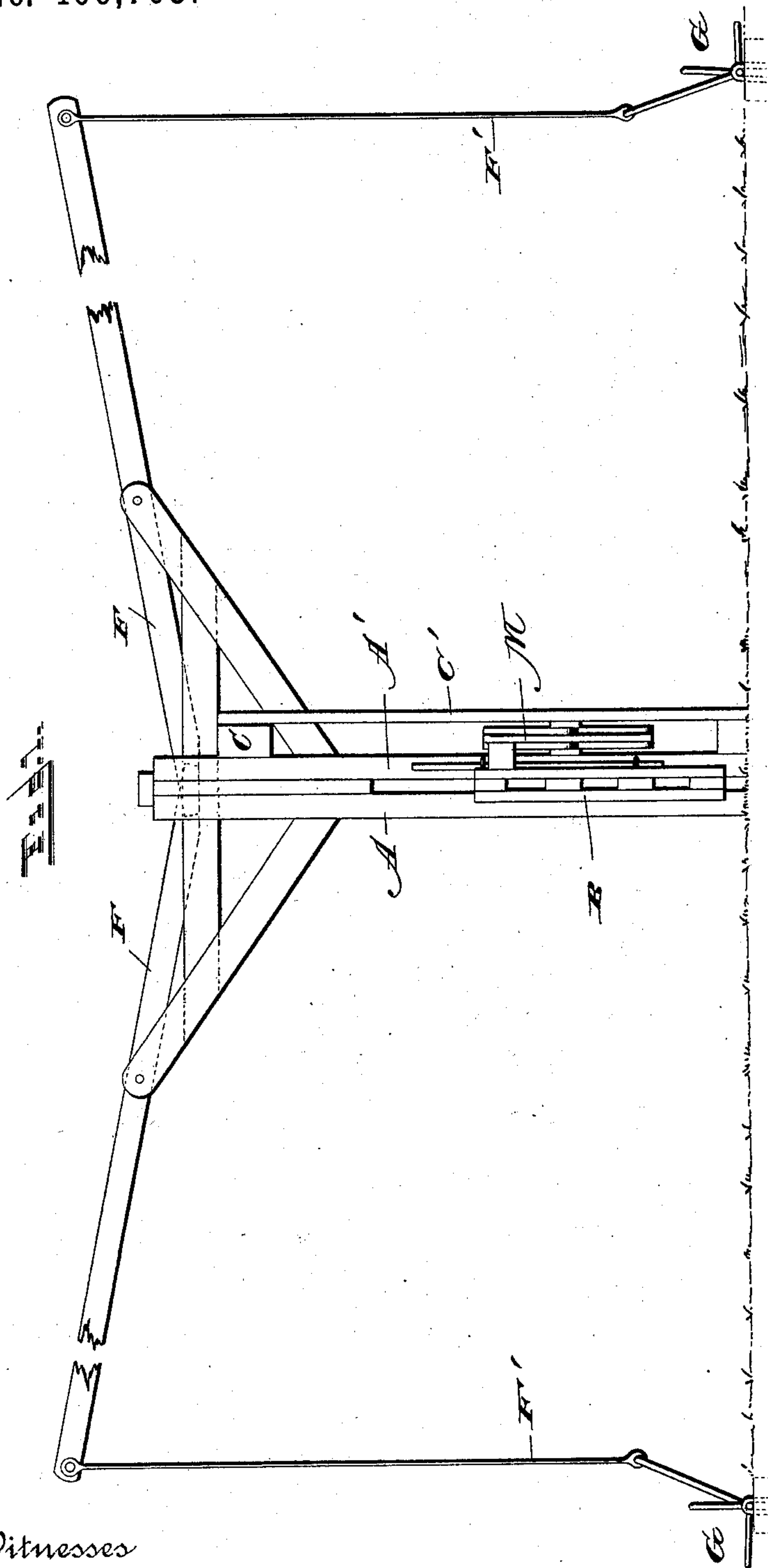
(No Model.)

2 Sheets—Sheet 1.

C. M. COCHRAN.  
GATE.

No. 406,703.

Patented July 9, 1889.



Witnesses

*L. S. Elliott.*  
*W. Johnson*

By his Attorney

*Cassius M. Cochran*  
Inventor

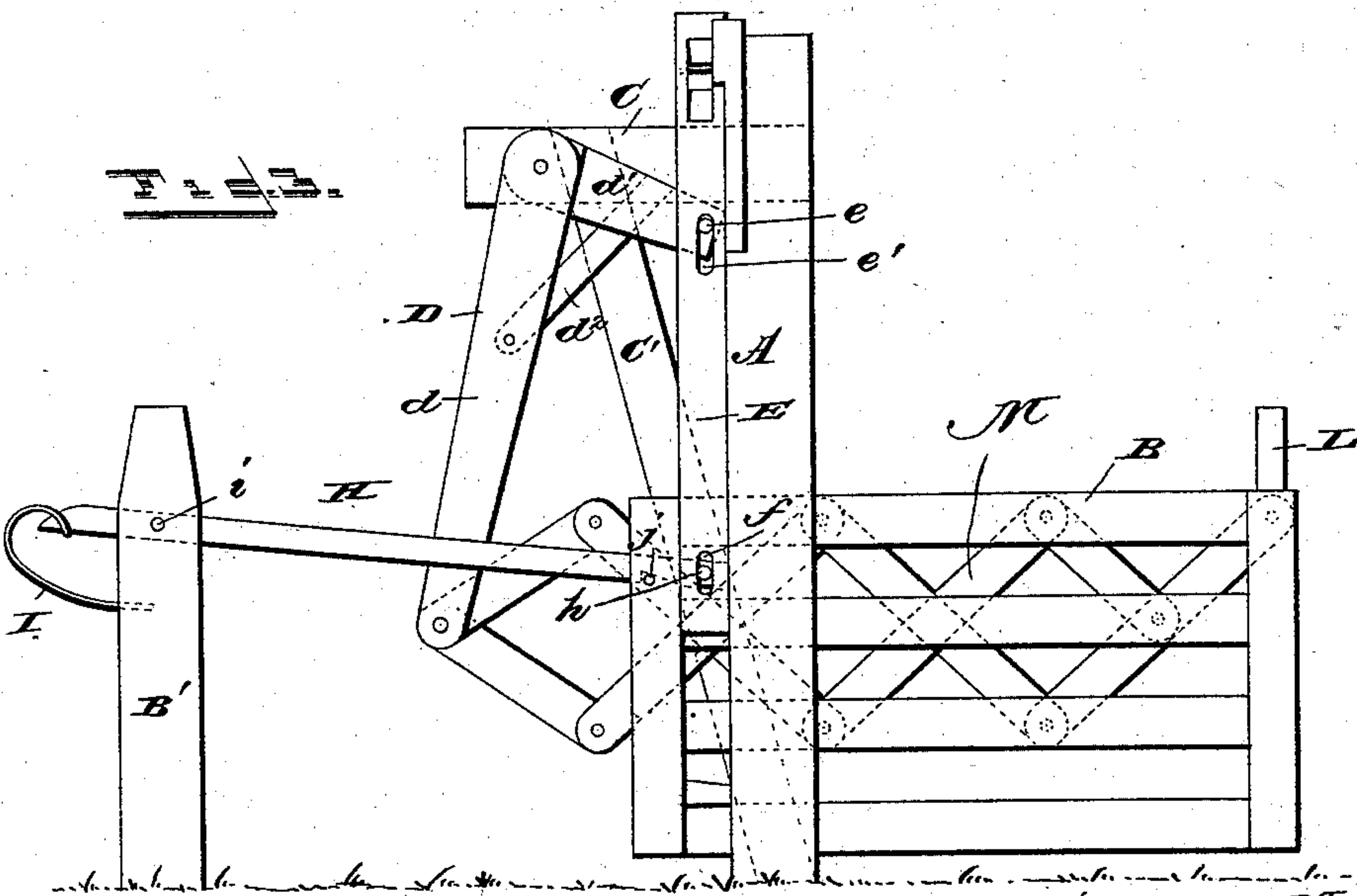
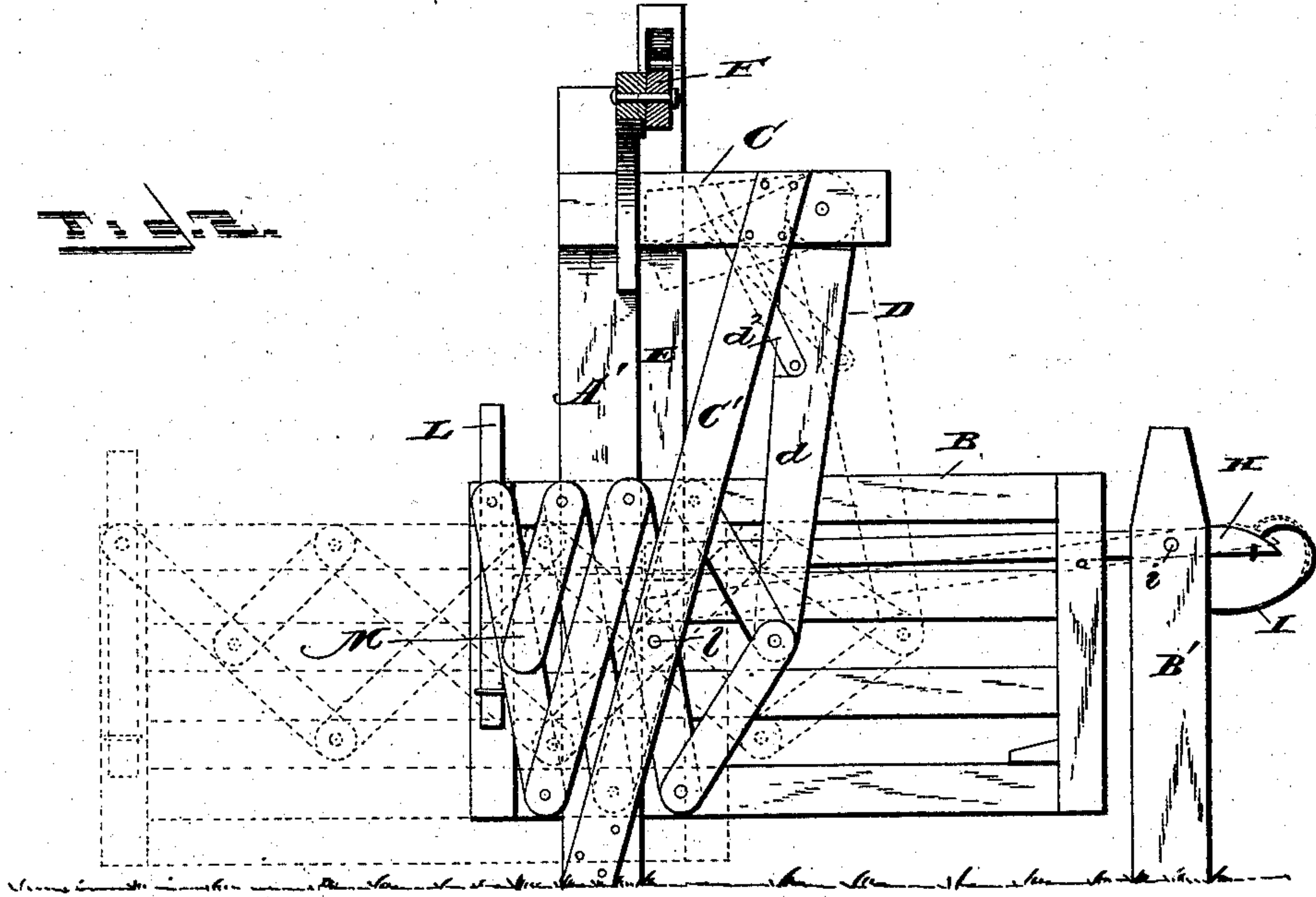
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G. S. Elliott.  
E. M. Johnson.

By his Attorney

*[Signature]*



# UNITED STATES PATENT OFFICE.

CASSIUS M. COCHRAN, OF MARION, INDIANA.

## GATE.

SPECIFICATION forming part of Letters Patent No. 406,703, dated July 9, 1889.

Application filed April 25, 1889. Serial No. 308,599. (No model.)

*To all whom it may concern:*

Be it known that I, CASSIUS M. COCHRAN, a citizen of the United States of America, residing at Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in sliding gates; and it consists in the novel construction and arrangement of the parts thereof, as will be hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a front view of a gate constructed in accordance with my invention, showing the levers and connections for operating the gate. Fig. 2 is a side view showing the gate open in full lines and closed in dotted lines. Fig. 3 is a side view showing the opposite side of the gate from that illustrated in Fig. 2, the gate in this view being in a closed position and the operating mechanism being partly left off.

A and A' refer to vertical posts suitably planted in the ground, the upper ends thereof being connected to each other to provide an opening between the posts, in which the gate B moves. To one side of these posts is secured a shorter post B', and from this post to the post A are secured ordinary horizontal rails.

Near the upper end of the post A' and extending toward the post B' is secured an arm C, which is braced by a diagonal brace-bar C', which extends from the outer end of the arm to the lower end of the post A', said brace being set a short distance from the post to permit the lazy tongs to play between the same.

D refers to a bell-crank lever composed of a long arm  $d$  and a short arm  $d'$ , these arms being braced by a bar  $d^2$ . The end of the short arm has a projecting pin  $e$ , which passes through a vertical slot  $e'$  in a sliding bar E, the said sliding bar being recessed at its up-

per end, and into this recess are passed the ends of the operating-levers F F, said levers being pivoted to arms or brackets carried by the posts A and A'. The outer ends of these levers are provided with depending bars F', the lower ends of which engage with the ends of the double-crank arms G, with which the wheels of a vehicle are adapted to engage to operate the levers to open and close the gate.

The lower end of the sliding bar E has a slot  $f$ , through which passes a pin  $h$ , carried by the pivoted arm H, and upon this bar the rear end of the gate slides. The bar H is supported near its rear end by a pivot-pin  $i$ , and with the end projecting beyond the post B' a spring I engages, said spring having a tendency to throw the forward end of the bar H downwardly, so that a notch formed therein will engage with a pin  $j$ , passing through the rear vertical battens of the gate to hold the gate closed.

At the front end of the gate, to the vertical batten thereof, is secured a sliding bar L, which is secured thereto by staples, and this sliding bar is provided with an offset, to which is secured one of the levers of the lazy-tongs M, one bar of the lazy-tongs being pivoted between the post A' and brace C' by a pivot-pin  $l$ . The rear end of the lazy-tongs is secured to the lower end of the arm  $d$  of the bell-crank lever. By providing the sliding bar L, to which the front end of the lazy-tongs is secured, the outer end of the gate can be elevated slightly when desired.

When it is desired to open the gate, the parts being in the position shown in Fig. 3, a wheel of a vehicle striking one of the double-crank arms G will depress the end of one of the levers F, which will tend to raise the bar E, and the lower slot  $f$  in which, through which passes the pin  $h$ , will elevate the end of the bar H to release the pin  $j$ . As soon as this is accomplished, further upward movement of the sliding bar E will operate the bell-crank lever D and throw the long arm thereof in the direction of the arrow, so as to bring the different sections of the lazy-tongs together and slide the gate open. The gate is closed by the opposite movement of the parts.

I am aware that prior to my invention it



has been proposed to operate gates by using lazy-tongs and levers, and I do not claim such broadly; but

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

1. The combination, in a sliding gate, of the supporting-posts, bell-crank lever, and lazy-tongs, supported substantially as shown, a bar H, upon which the rear end of the gate slides, and a vertically-sliding bar which engages with pins extending from the bar H and from a short arm of the bell-crank lever for operating the bar H, bell-crank lever, and gate, substantially as shown, and for the purpose set forth.

2. The combination, in a sliding gate, of the pivoted levers F, having depending bars F', the lower ends of which are connected to double-crank arms, a vertically-sliding bar E, connected to levers F and having slots *e'* and *f*, lazy-tongs M, a bell-crank lever D, the short arm thereof having a pin which engages with the slot *e'*, and the long arm of said lever en-

gaging with the inner end of the lazy-tongs M, a vertically-moving bar L, connected to the front end of said lazy-tongs, the bar H, having near one end a notch and a projecting pin engaging with the slot *f*, the other end of the bar H having a spring I, and a pin *j* upon the gate for engaging with said notch, the parts being organized substantially as shown, and for the purpose set forth.

3. The combination, in a sliding gate operated by a bell-crank lever and lazy-tongs, arranged substantially as shown, of a movable bar L, adjustably secured to the front end of the gate, the forward end of the lazy-tongs being adapted to engage with said bar, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CASSIUS M. COCHRAN.

Witnesses:

E. F. FELT,  
T. C. SMITH.