

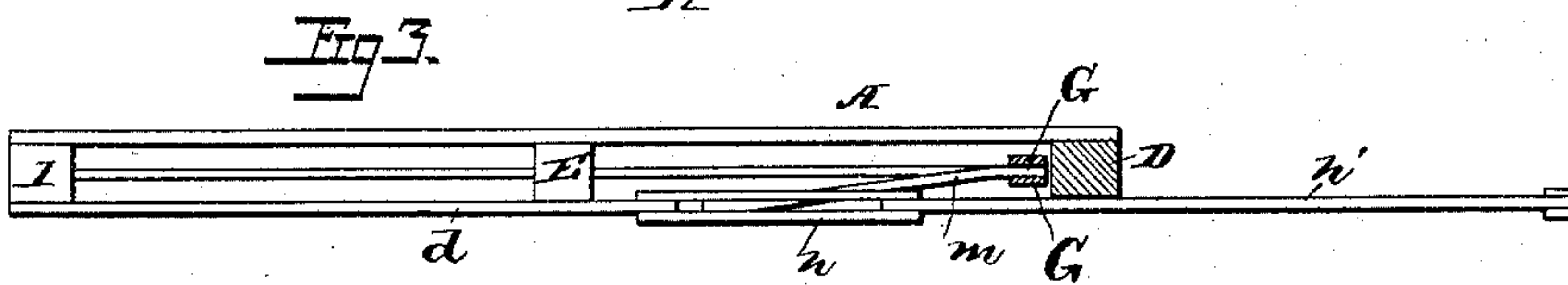
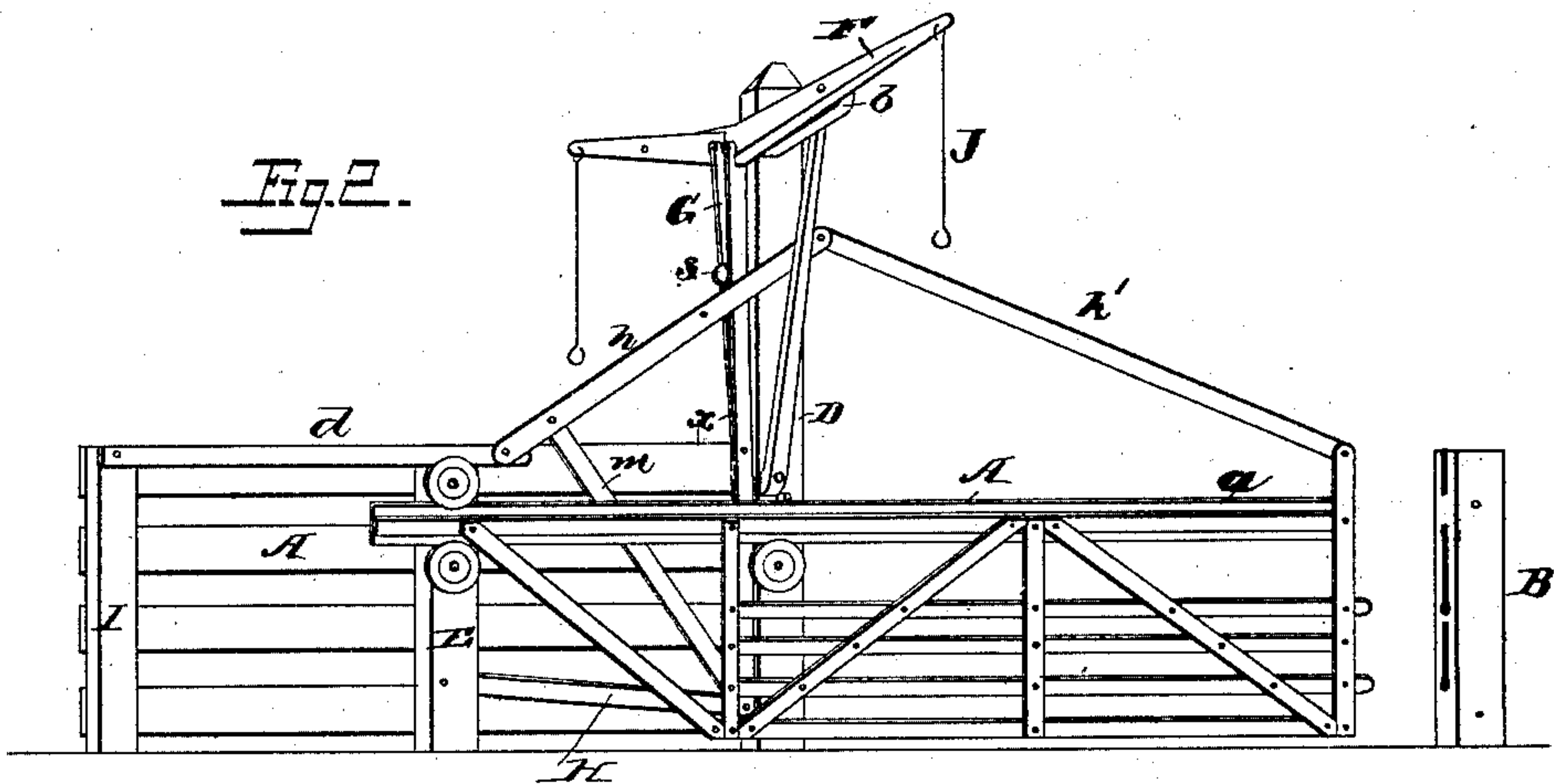
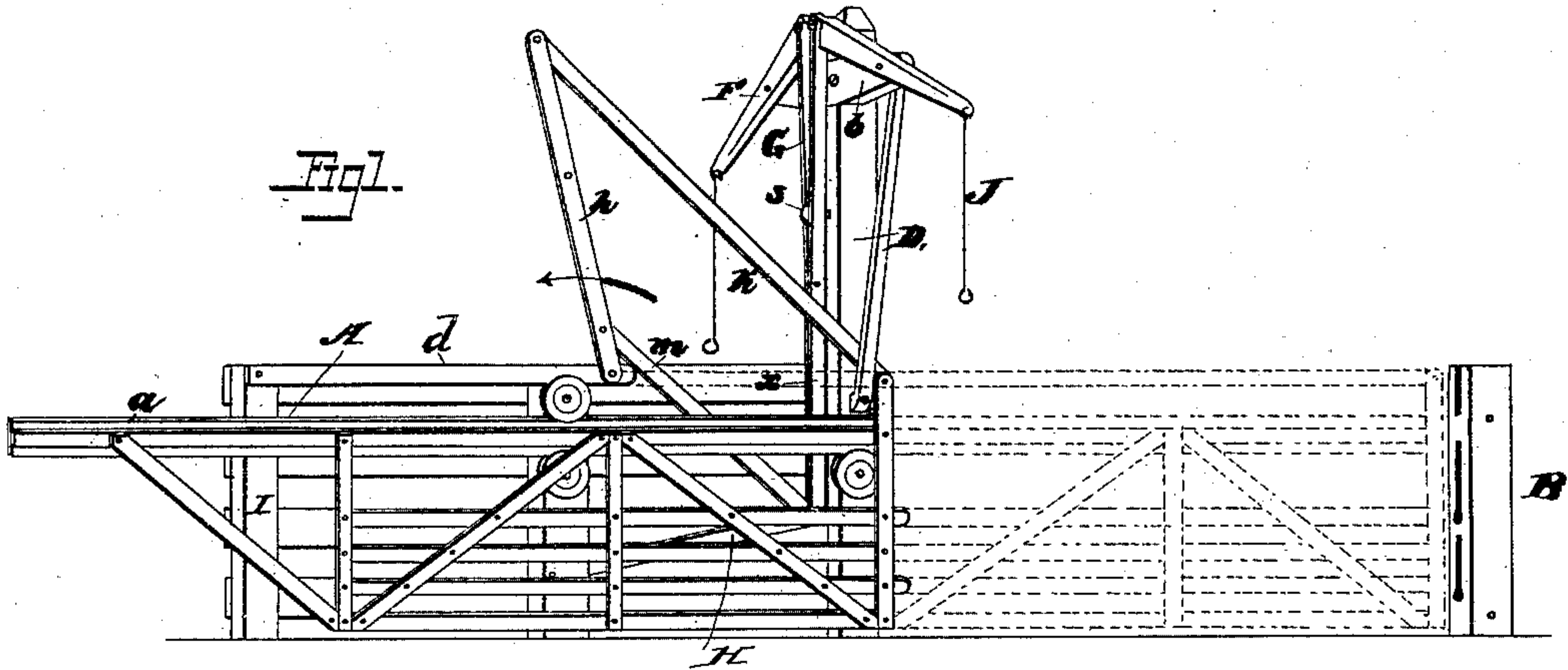
(No Model.)

W. R. WHITE.

SLIDING GATE.

No. 371,238.

Patented Oct. 11, 1887.



Attests:

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# UNITED STATES PATENT OFFICE.

WILLIAM R. WHITE, OF NEOGA, ILLINOIS.

## SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 371,238, dated October 11, 1887.

Application filed April 24, 1885. Serial No. 163,312. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. WHITE, a citizen of the United States, and a resident of Neoga, in the county of Cumberland and State of Illinois, have invented certain new and useful Improvements in Sliding Gates, of which the following is a specification.

My invention relates to that class of gates which are opened and shut through the medium of a vertically-reciprocating rod and operating-levers connected therewith; and my invention consists in combining with the said rod a link connected to one of the operating-levers near its pivot, so that the gate may be moved to its fullest extent by a comparatively slight movement of the main operating-levers.

My invention further consists in the combination, with the parts above set forth, of a guide-bar which directs the movement of the lower end of the reciprocating rod with but little friction.

In the drawings, Figure 1 is a perspective view of a sliding gate, showing my improved operating devices. Fig. 2 is a perspective view showing the parts in a different position. Fig. 3 is a part plan view of Fig. 2 in part section.

A is the sliding panel of the gate, constructed and guided to slide back and forth toward the post B in any suitable manner. As shown, the panel is provided with an extended upper rail, *a*, which slides upon rollers supported by the standards D E. The standard D supports at its upper end a cross-bar, *b*, to which are pivoted the upper operating-levers, F, and the latter are connected by means of a split rod, G, to a pivoted bar, H, the outer end of which is pivoted to the standard E.

To the standards D E I are secured horizontal rails forming a section of the fence, and a short rail, *d*, is connected to the standards I and E and projects beyond the latter, and to its inner projecting end is pivoted one of two toggle-levers, *h h'*, constituting the lower operating-levers, the lever *h'* being pivoted to the forward bar of the gate-panel. A link, *m*, is pivoted, preferably, at the junction of the rod G and bar H, and at its upper end is pivoted to the lever *h* at a point near the stationary pivot of the said lever. From the ends of

the levers F hang rods or hand-pulls J, as shown.

When the gate is closed, the toggle-levers *h h'* are in horizontal line with each other, as shown in dotted lines, Fig. 1, the outer ends of the operating-levers F being elevated and the bar H being depressed to a nearly horizontal position. By drawing down upon either of the pulls J the rod G, bar H, and link *m* are thrown upward, thereby swinging back the lever *h* in the direction of its arrow to the position shown in Fig. 1, and drawing back the gate-panel to the position as shown in the said figure. As the link *m* is connected to the lever *h* near its pivot, a comparatively slight upward movement of the link will result in turning the lever *h* from its horizontal to its vertical position and in the opening of the gate, so that the said opening may be effected by drawing down the end of either operating-lever to a comparatively slight extent. By this arrangement of parts I am enabled to avoid the objections incident to many of the ordinary connections, which render it necessary to impart such a sweep to the operating-levers that their ends are in contact with or sometimes below the surface of the ground when the gate is thrown open to its full extent.

The bar H serves as a means of guiding the lower end of the rod G and permitting it to move up and down freely in its proper path with but little friction, the rod being carried away from contact with the standard as it rises; but it will be evident that instead of connecting the inner end of the bar at the point of junction of the rod G and link *m*, as shown, it may be connected to the rod either slightly above or below said point, and that the lower end of the link *m* may also be connected directly to either the bar H or rod G, instead of to the point of connection between them, without materially altering the operation of the gate.

While the lever *h* and rod G may consist each of a single strip, I prefer to make the lever of two strips, as shown in the plan, Fig. 3, and to also make the rod of two parallel strips connected together at *x*, each strip being attached at its upper end to the inner end of one



of the operating-levers, and the two strips receiving between them at the lower ends the ends of the bar H and link *m*, as shown, and being guided by a pin, *s*, projecting from the standard D.

5 While I have shown the sliding rod G, link *m*, and bar H in connection with one form of gates and operating-levers, it will be evident that these parts may be used in many instances  
10 in connection with different forms of gates, where it is desirable to throw the gate open and shut without imparting extended movements to the operating-levers, and that the relative arrangement or points of connection  
15 of said rod, link, and bar may be somewhat varied without departing from the spirit of my invention.

Without limiting myself to the precise construction and arrangement of parts shown and  
20 described, I claim—

1. The combination, in a gate, of toggle-jointed levers connecting the gate with a fixed point, pivoted hand-levers connected by a rod

with a link pivoted to one of the toggle-levers, and a bar pivoted at one end to a fixed point 25 and at the other to the aforesaid rod, substantially as set forth.

2. The combination, with the operating-levers *F h h'* of a gate, of a rod, G, link *m*, connecting the rod and one of the operating-levers, and a bar, H, pivoted to the rod G and to a stationary support, substantially as described. 30

3. The combination, with the vertically-reciprocating rod G, of a gate connected to the operating-levers *F h h'* thereof, and a guide-bar, H, pivoted to the said rod near the lower end and to a stationary support, substantially as described. 35

In testimony whereof I have signed my name 40 to this specification in the presence of two subscribing witnesses.

WM. R. WHITE.

Witnesses:

W. D. DICKEY,

W. W. WHITNEY.