

W. H. PHILLIPS.
 Improvement in Self Operating Gates.
 No. 120,322. *Fig. 1.* Patented Oct. 24, 1871.

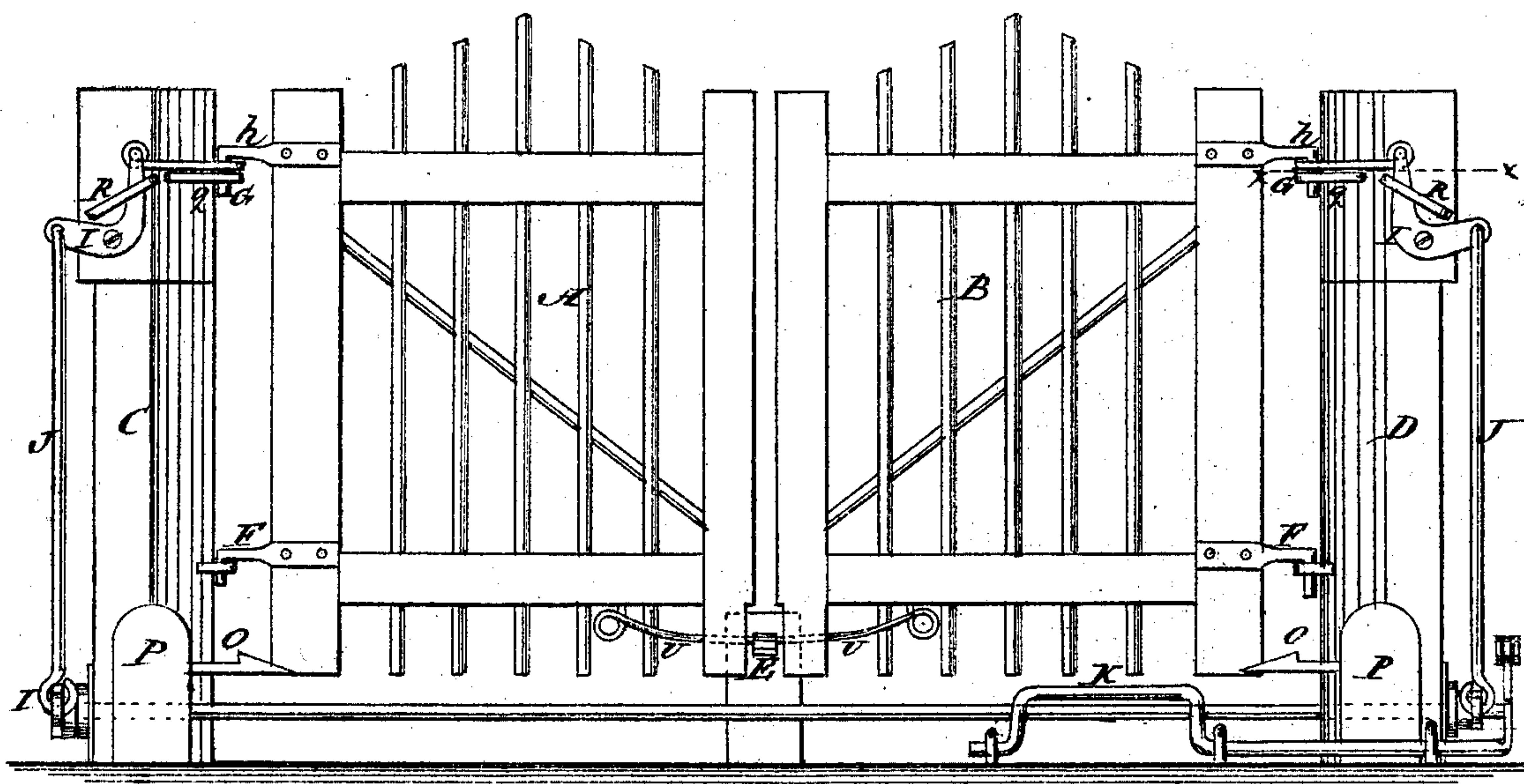


Fig. 2.

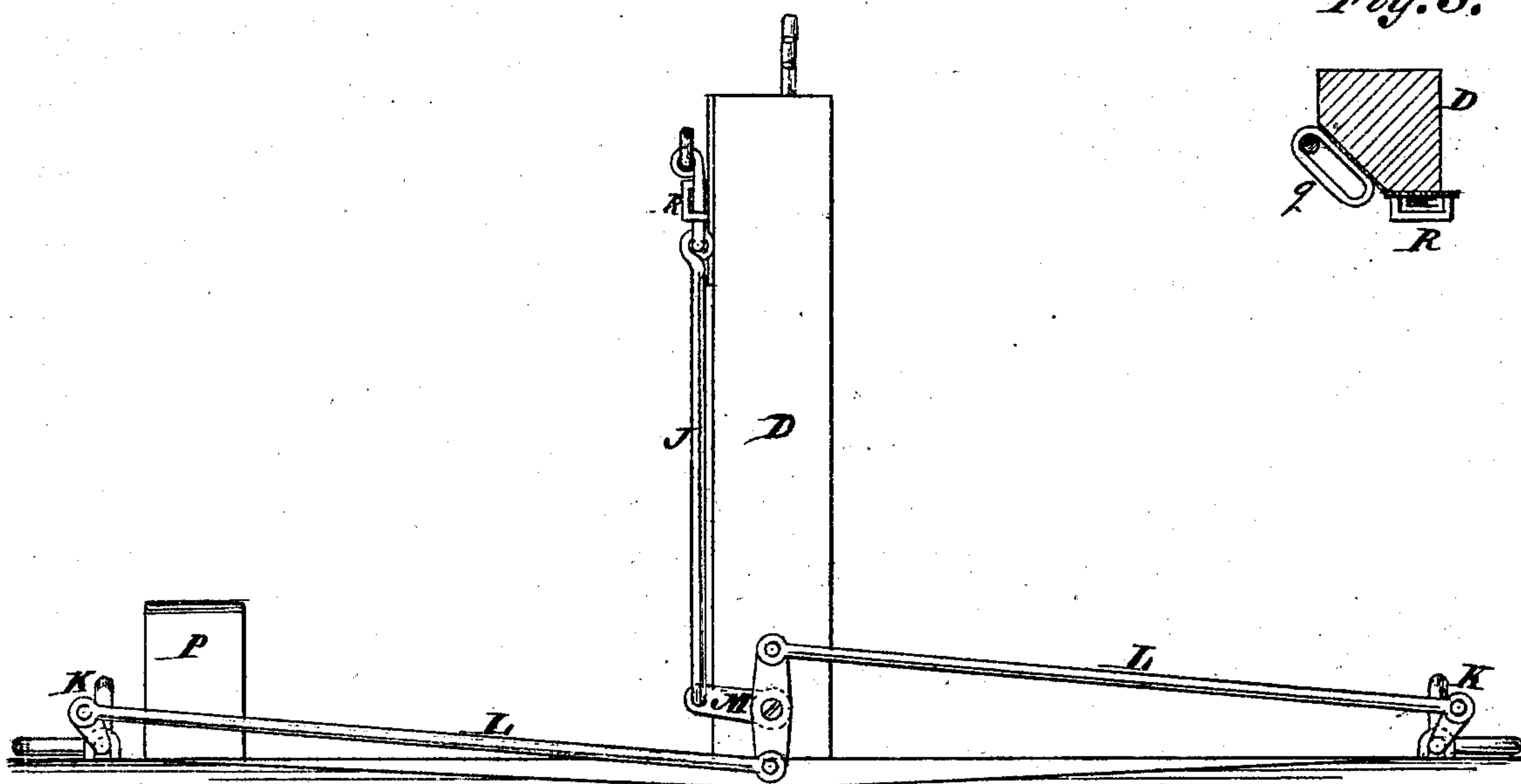
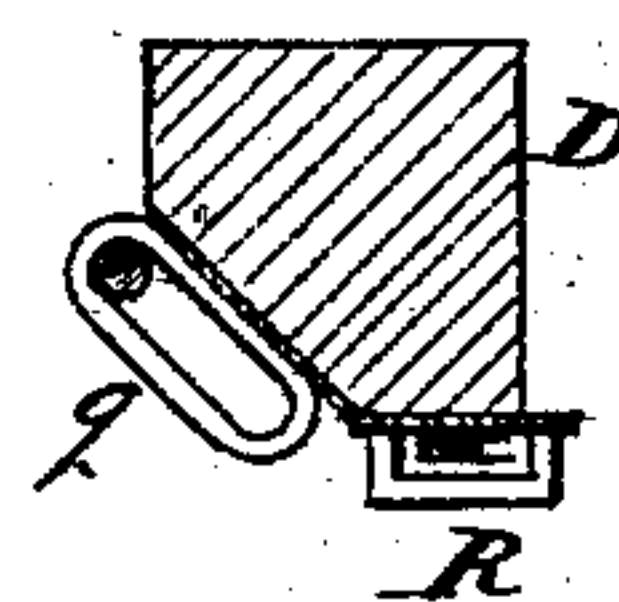


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. PHILLIPS, OF STAUNTON, INDIANA.

IMPROVEMENT IN SELF-OPERATING GATES.

Specification forming part of Letters Patent No. 120,322, dated October 24, 1871.

To all whom it may concern:

Be it known that I, WILLIAM H. PHILLIPS, of Staunton, in the county of Clay and State of Indiana, have invented a new and useful Improvement in Mode of Operating Self-Closing Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification.

The object of this invention is to facilitate the opening and closing of gates for farm and other purposes; and it consists in the construction, arrangement, and combination of parts hereinafter described.

In the accompanying drawing, Figure 1 shows a front elevation of the gate as closed and latched. Fig. 2 is an end view, showing one of the gate-posts and part of the mechanism by means of which the gate is operated. Fig. 3 is a horizontal section of Fig. 1 taken on the line *x x*, showing the mode of adjusting the upper hinges.

Similar letters of reference indicate corresponding parts.

The drawing represents in Fig. 1 a double gate, but the mechanism may be applied to a single gate with equal advantage.

A and B represent the gates. C and D are the posts to which the gates are hinged. E is the latch-post for fastening the gates closed. F represents the lower hook-and-eye hinges of the gates. G represents the upper hinges. These latter hinges are adjustable, the hooks *h h*, attached to the gates, being drawn outward and toward posts in opening the gates by means of the bell-cranks I I and rods J J operated upon by the double cranks K K, the rods L L, and the T-cranks M. In pressing down on either of the double cranks K K the effect is to pull down the vertical rods J J, and the latter being attached to the bell-cranks I I the hooks *h h* of the upper hinges are drawn outward and toward the posts by the upper arms of the bell-cranks, so that the centers of gravity of the gates are changed; the

gates are lifted from their central latch-fastening on the post and they naturally swing open to a right angle with the track and catch to the latch-hooks O O on the posts P P. When the gates are thus fastened back the double cranks are turned in the opposite direction, the adjustable hinges G are thrown back into their proper places, the spring-latches are lifted from the hooks O O, and the gates close by their own gravity and latch to the central post. When the hooks *h h* of the upper hinges are drawn out or in by the bell-cranks I I, they are confined in the slots *q q* attached to the gate-posts, as seen in the section, Fig. 3, and the bell-cranks are guided in their motions back and forth by the long staples R R. The motion of the T-crank *m* is communicated to the opposite upright rod J by means of the horizontal rod S, which is supported by the gate-posts. There is a crank, T, on the end of this rod, to which the vertical rod J is attached. The operation of the bell-crank and hinge is the same on both gates.

U U are spring-latches, which operate automatically in fastening the gates open or closed.

By this arrangement it will be seen that the gates are opened by simply bearing upon either of the cranks K K, and closed by raising either one.

The gates swing toward the posts P P. The drawing shows the front side, but the gates are operated from either side.

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

1. The bell-cranks I I, cranks K K and M, and rods J and L, arranged and operating substantially as described, for the purposes set forth.

2. The combination of the hinges G G and guides *q* and R with the bell-crank I, cranks K K and M, and rods J and L, substantially as shown and described.

WILLIAM H. PHILLIPS.

Witnesses:

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