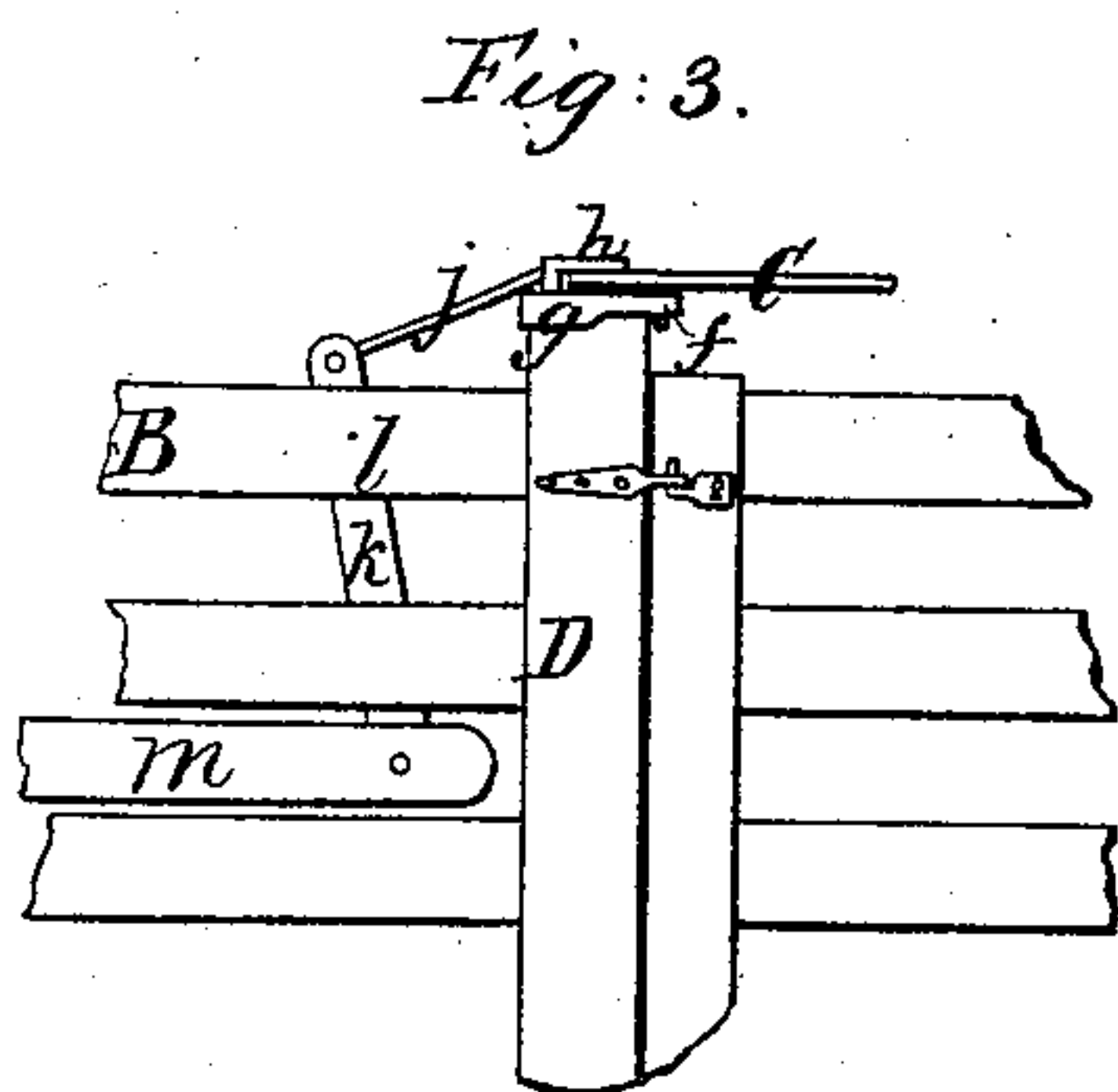
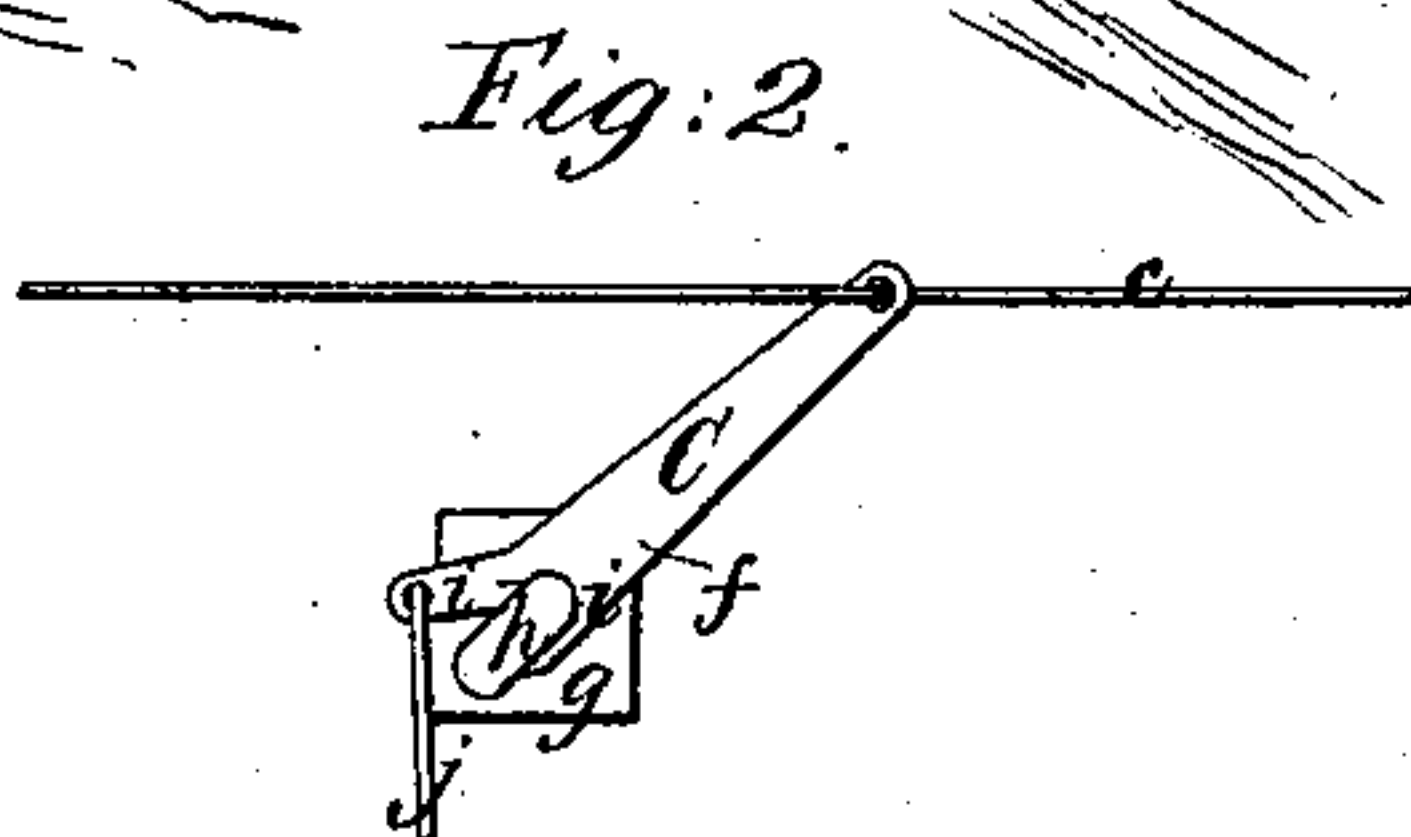
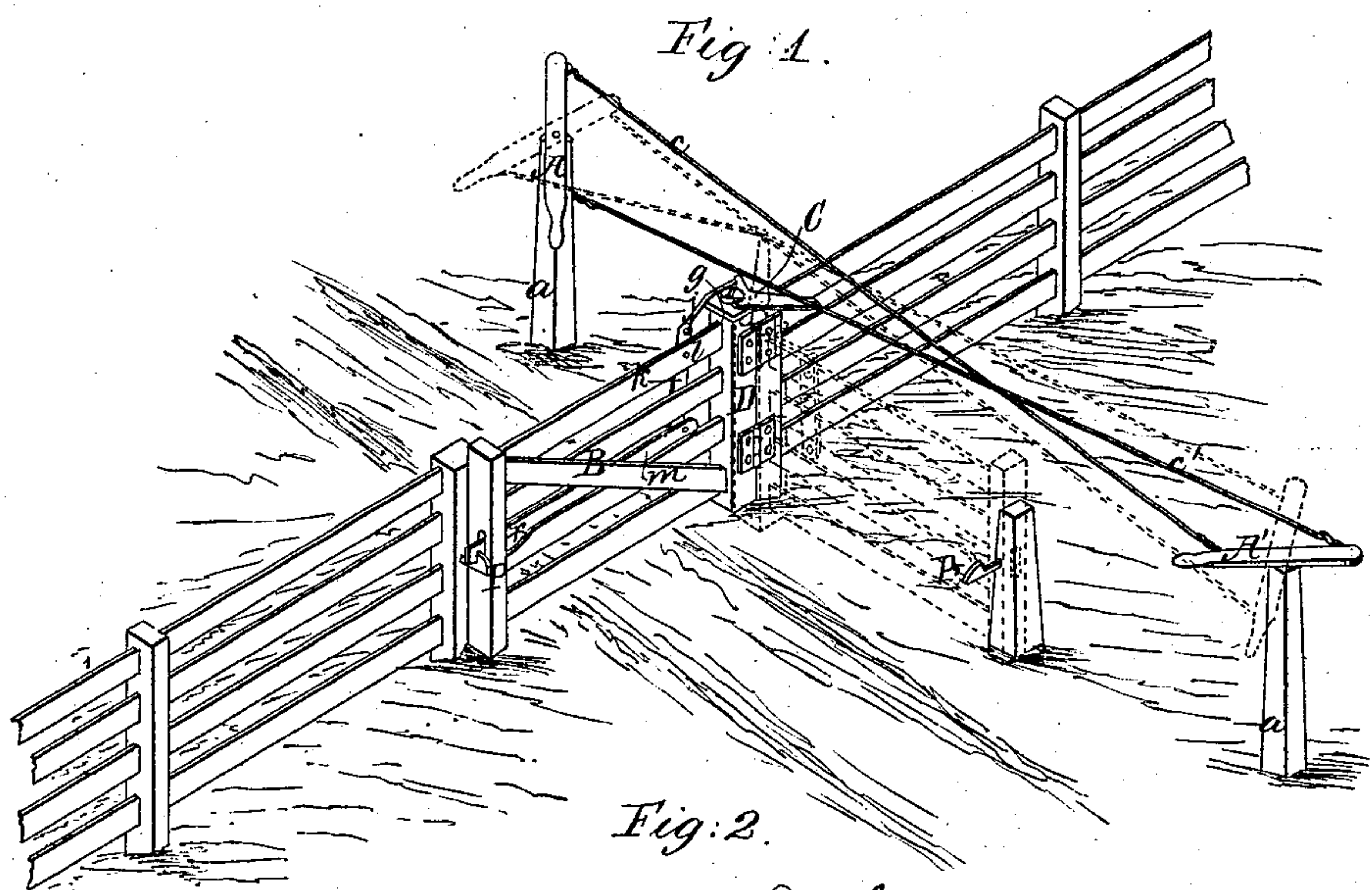


H.M. Long,

Automatic Gate,

N^o 85,390,

Patented Dec. 29, 1868.



Witnesses;
J. R. Dyer
W. J. Chamberlain

Inventor,
H. M. Long
J. Fraser & Co.
attys

United States Patent Office.

H. M. LONG, OF WILLIAMSVILLE, NEW YORK.

Letters Patent No. 85,390, dated December 29, 1868.

IMPROVEMENT IN GATE-ATTACHMENT.

The Schedule referred to in these Letters Patent and making part of the same

To all, whom it may concern:

Be it known that I, H. M. LONG, of Williamsville, in the county of Erie, and State of New York, have invented a certain new and useful Improvement in Gate-Attachments; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

Figure 1 is a perspective view of a fence and gate having my attachment.

Figures 2 and 3 are detail views.

Like letters of reference indicate corresponding parts in all the figures.

My improvement is of that class where the latch is first disengaged, and the gate then swings by one movement of a lever.

The invention consists in the special means by which this result is accomplished, as hereinafter set forth.

In the drawings—

A A' represent hand-levers, pivoted to the top of outside posts *a a*.

A single wire, *c*, is attached, at one end, to the heel of the inside lever A, and then runs to a point near the handle of the outside lever A', where it is fastened. From the heel of this lever A' another wire, *c'*, runs, in the same manner, to lever A, and is immediately fastened to the outer end of a short lever-arm, C, situated on top of heel-post D of the gate B.

This lever-arm C is pivoted at *f* to one corner of the metal cap *g*, fast to the heel-post. Its inner end is made forked, and plays on a button-stop, *h*, bolted on the top of the heel-post, which also holds the cap on the post.

One tine, *i*, of this forked lever projects diagonally, and forms a supplementary lever-arm, into which is set a rod, *j*, whose opposite end is attached to the top of a lever, *k*, pivoted at *l* to the gate B, its lower end again pivoted to the longitudinally-sliding latch *m*.

The operation of my device is as follows:

The person in the vehicle or on horseback pulls the handle of the outside lever, A', which, by means of connecting-wire *c*, draws the heel of lever A' towards the gate, the wire *c'* pulling upon the metal lever-arm C, which, by its connecting-rod *j*, levers *i* and *k*, first slides the latch back from the catch, and a continued

pull in the same direction, on the lever, throws the gate entirely open.

A device is already patented, (May 7, 1868, No. 64,551,) in which the latch is lifted and the gate swung by one action.

I do not claim this principle, but only my means of accomplishing the result, which is different in arrangement and action from the one just cited.

Instead of making the latch lift to disengage, I make it slide longitudinally.

It will be noticed that in sliding to open the gate, the latch is simply drawn back from the catch *p*, but in sliding to close the gate, it is thrown forward, so that notch *r* coincides with catch *p'*.

At the same time that the disengagement of the latch is produced by sliding endwise, it engages automatically by rising, when it strikes the inclined catch.

In my plan I also simplify the arrangement of the lever-work and connections for operating the gate.

The cross-wires *c c'* always act by tension, and not compression, and hence can be made very slight. Only a single lever-arm, C, and connecting-rod, *j*, are necessary to produce the combined motion.

The forks of the lever-arm have sufficient play to give, first, the throw of the latch; then, by striking stop *h*, they give the movement of the gate.

These special features, combined together, constitute the novelty in my invention.

I do not claim broadly producing the disengagement of the latch and swing of the gate by one movement, as I am aware that the same is not new.

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

The arrangement of the cross-wires *c c'*, connecting with the levers A A', the swing-arm C, provided with forks *i i*, the button-stop *h*, and the connecting-rod *j*, when the said parts are combined with the longitudinally-sliding latch *m* and swinging gate B, in the manner and for the purpose specified.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

H. M. LONG.

Witnesses:

J. R. DRAKE,
ALBERT HAIGHT.