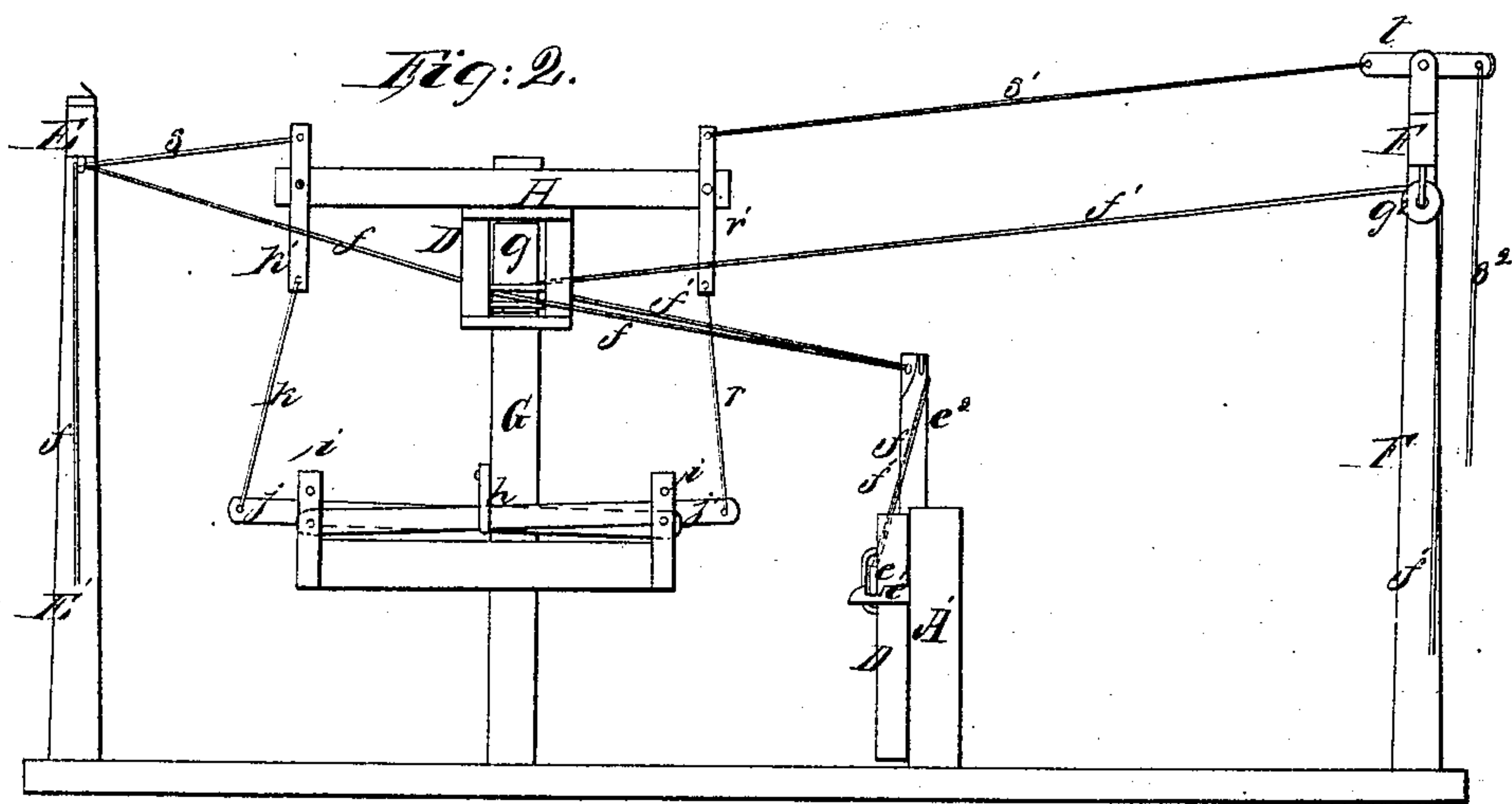
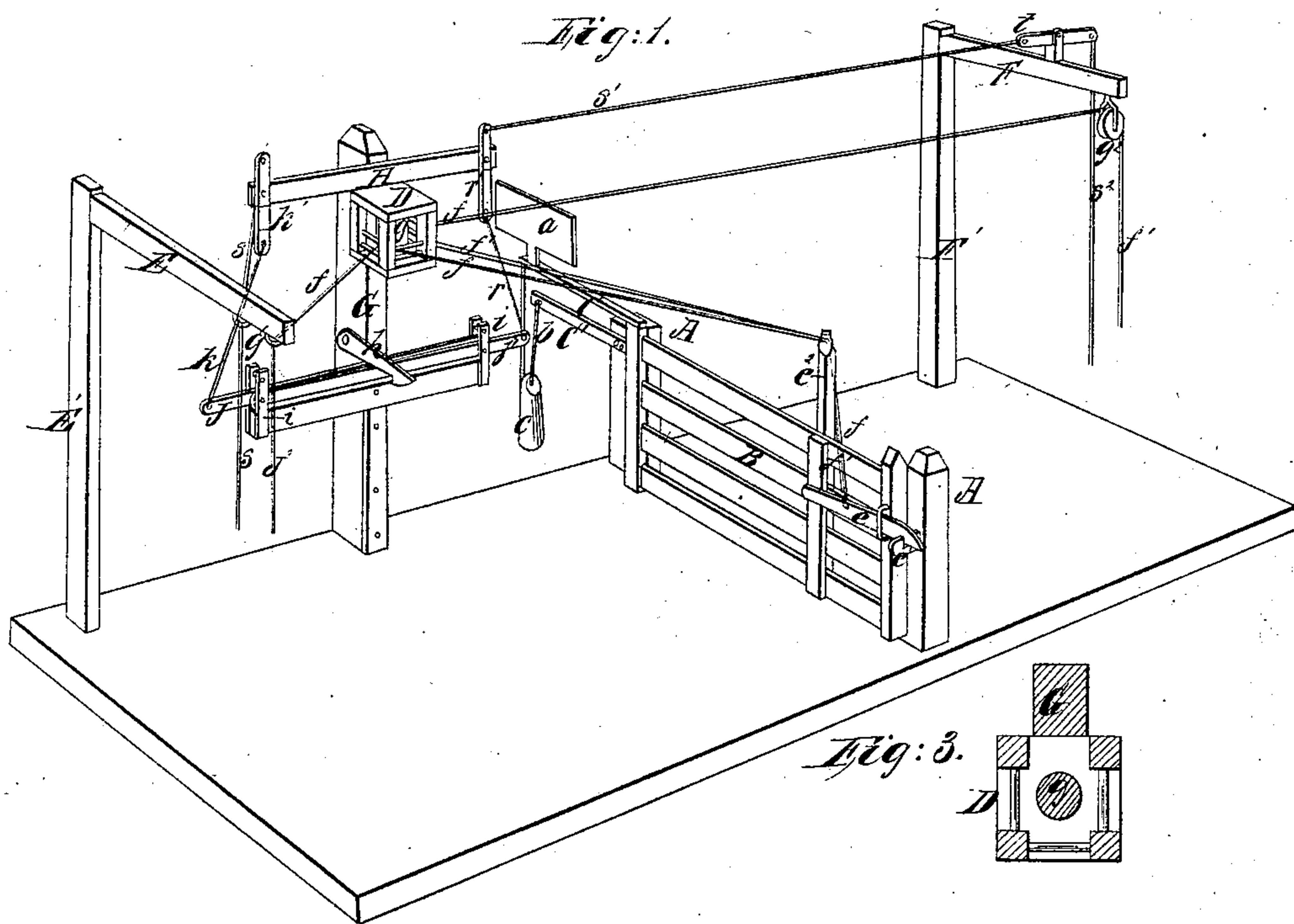


J. Martin,

Gate.

N^o 54,381.

Patented May 1, 1866



Witness:
R. Campbell

Inventor:
Joseph Martin
by his atty
Mason, Fenwick & Lawrence

UNITED STATES PATENT OFFICE.

JOSEPH MARTIN, OF NEW OXFORD, PENNSYLVANIA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 54,381, dated May 1, 1866.

To all whom it may concern:

Be it known that I, JOSEPH MARTIN, of New Oxford, Adams county, State of Pennsylvania, have invented a new and Improved Farm-Gate; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved arrangement for opening and closing a gate. Fig. 2 is an elevation of one side of the same. Fig. 3 is an enlarged horizontal section of the pulley-box which is applied to one of the posts.

Similar letters of reference indicate corresponding parts in the three figures.

This invention relates to that class of farm-gates which can be opened by a person while riding in a vehicle or upon horseback without turning out of the road, and then closed again and latched after passing through the gate.

The invention relates particularly to an improvement on the method of opening and closing gates which was secured to me by Letters Patent bearing date on the day of , 186 ; and it consists in the application of levers to the latch which holds the gate open for the purpose of enabling a person to close the gate without much exertion.

It also consists in the application of a wind-plate to an arm projecting from the hinged post of the gate for the purpose of counteracting to a great degree the pressure of the wind upon the gate, and thus enabling a person to open or close it readily in a high wind.

In conjunction with said counterbalancing feature, the invention finally consists in the employment of a weight to assist in keeping the gate closed, all as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will proceed to describe its construction and operation.

In the accompanying drawing, A A' represent two gate-posts, and B represents the gate, which may be constructed and hinged to the post A in any suitable manner.

C is a long arm, which is suitably secured to the hinged standard of the gate, and which projects over the upper end of the post A, so as to swing clear of it when the gate is opened or closed. On this arm a plate, *a*, is secured in a plane coinciding with that of the gate.

This plate presents a resisting surface to the wind and serves to counteract the pressure of the wind against the panels of the gate. This portion *a* may be made of thin strips of wood secured together in a frame.

C' is an arm projecting from the upper end of the gate-post A, to which is attached a rope or chain, *b*, one end of which is attached to the arm C, as shown in Fig. 1, and to this chain a weight, *c*, is suspended, so as to keep the gate closed by its gravity.

At the opposite end of the gate B a long latch, *e*, is pivoted, which drops into a catch, *e'*, projecting from the post A' when the gate is closed, as shown in Figs. 1 and 2. The latch *e* has two ropes attached to it, which are carried up and passed through an eye in the upper end of a post, *e*², which is secured to the gate B, as shown in Figs. 1 and 2. From this post the ropes *f f'* are carried to a pulley-box, D, and passed around a vertical roller, *g*, therein, in opposite directions. The rope *f* is thence carried forward and passed through an eye, *g'*, on a horizontal arm, E, which projects over the road from an upright post, E', that is arranged on one side of the road. The rope *f'* is carried back from the roller *g* and passed through an eye or a pulley, *g*², which is attached to the horizontal arm F' of a post, F'.

The posts E' and F' should be located at such distances from the gate that a person can ride up to it on horseback or in a vehicle and open it without frightening the horse. As the gate opens on the side on which the post E' is situated, it will be necessary to have this post farther from it than the post F'.

In practice, I shall attach weights to the pendent ends of the ropes *f f'*, so that they will always be handy for a person approaching or leaving the gate to grasp them, and by pulling them to open the gate. When the gate is thus opened it is caught and arrested by a pivoted latch, *h*, which is attached to the post G below the pulley-box D, as shown clearly in Fig. 1. This latch is supported upon two levers, *j j'*, which are pivoted at their ends between guides *i i*, that project up from the ends of a horizontal beam which is secured to the post G. The free end of the lever *j* is attached by a rope, *k*, to a lever, *k'*, on one end of a horizontal beam, H, which is arranged above the pulley-box D and secured to the post G. The free end of the lever *j'* is attached, by means of a rope, *r*,

to a lever, r' , which is pivoted to the opposite end of the beam H. The upper end of the lever k' has a pull-rope, s , attached to it, which is passed through a staple on the arm E of the post E', so as to hang by the side of the rope for opening the gate. The upper end of the lever r' is similarly provided with a pull-rope, s' , which is carried over the gate and passed through an eye or attached to a short lever, t , on the arm F of the post F'. Another rope, s^2 , is attached to the opposite end of the lever t , which hangs down in a convenient position to be caught by a person riding toward the gate.

From the above description of the method of releasing the gate from the latch h it will be seen that, notwithstanding a very high wind may be blowing and the latch held in place with considerable force, this latch may be easily lifted by drawing on either one of the pull-ropes s s^2 . The latch h catches over the top panel of the gate B and holds the gate firmly, so that it cannot possibly close while a vehicle

is passing through the space; hence the necessity of providing a system of levers and cords or ropes for enabling a person to readily lift said latch and release the gate at the proper time.

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

1. The arrangement of levers j j' beneath the latch h , which is used to hold the gate open, in combination with the pull-ropes s s^2 and overhanging beams E F, substantially as described.

2. The combination of levers r' k' , ropes k r , beam H, and pull-ropes s s' s^2 with the levers j j' and latch h , substantially as described.

Witness my hand in the matter of my improved farm-gate this 25th day of July, 1865.
JOSEPH MARTIN.

Witnesses:

R. T. CAMPBELL,
E. SCHAFER.