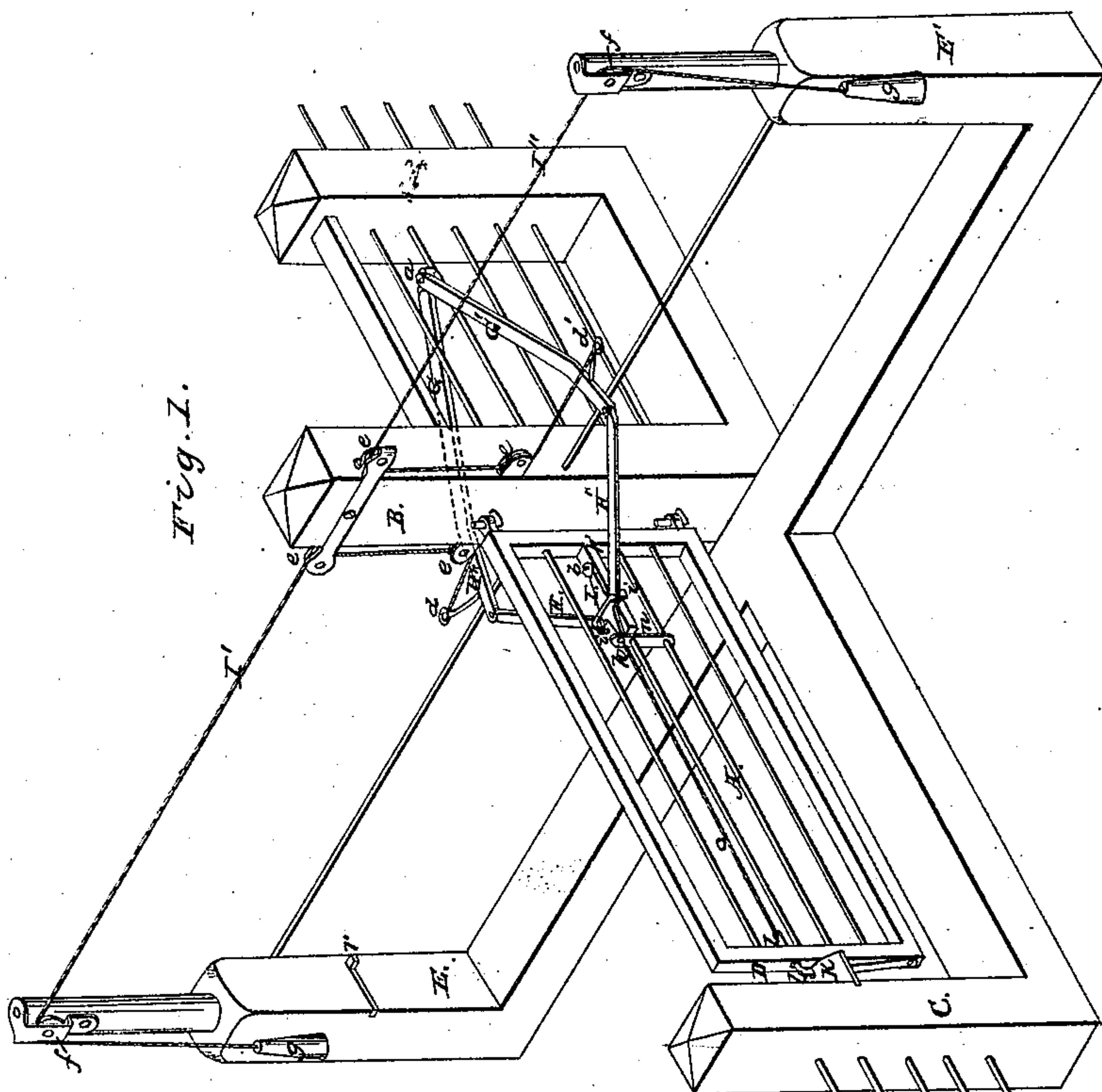
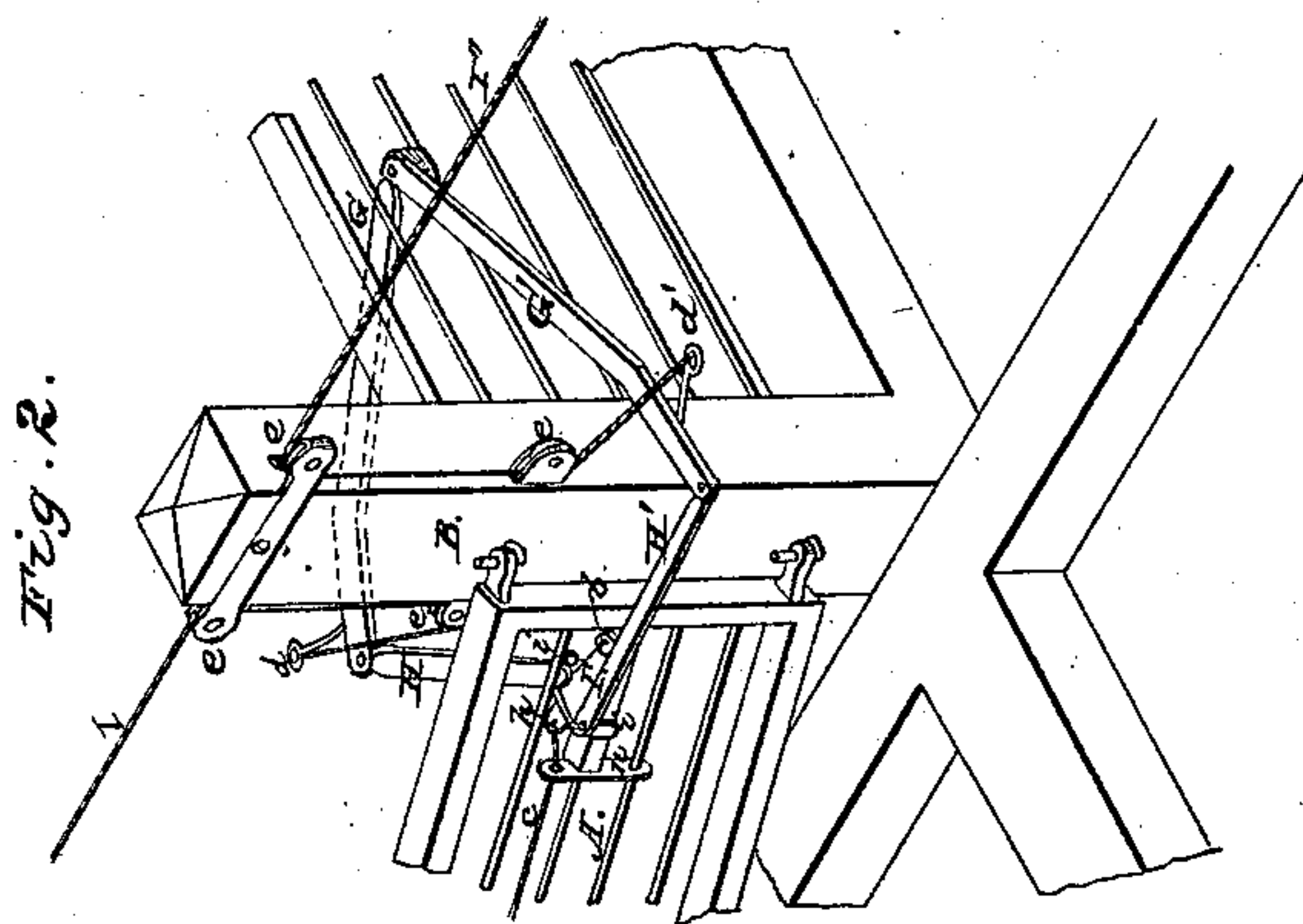


G. Yates,

Automatic Gate,

N^o 23,738.

Patented Apr. 19, 1859.



Witnesses:
Henry D. Kipp
Thomas Veasie.

Inventor.
Gilbert Yates.

UNITED STATES PATENT OFFICE.

GILBERT YATES, OF WEST DRESDEN, NEW YORK.

MODE OF OPENING AND CLOSING FARM-GATES BY HAND.

Specification of Letters Patent No. 23,738, dated April 19, 1859.

To all whom it may concern:

Be it known that I, GILBERT YATES, of West Dresden, Yates county, State of New York, have invented an Improved Device
5 for Opening and Closing Gates; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.
10 To enable others skilled in the art to which my invention belongs, to make and use the same, I will proceed to describe its construction and operation.

Figure 1, of the accompanying drawings represents a perspective view of the gate when closed. Fig. 2, represents the same when nearly opened.

The gate D, is hinged to the post B, and is provided with a latch *l*, which takes into
20 a slot in the plate *k*, which projects from the post C. The road is supposed to pass between the posts B, and C.

A bar F, projects from the gate frame D, and a vibrating connecting and unlatching
25 piece I, is pivoted to said bar F, at *b*.

A cord *c*, is tied or fastened to the front end of the piece I, at *h*, and passes through a hole in the stationary plate *n*, the other end of the cord being fastened to the spring
30 latch *l*, as fully shown in the drawings.

The front ends of two connecting pieces H, H', are pivoted to the arms of piece I, the ends of these arms being bent down as seen at *i*, *i*, so as to limit the lateral play of
35 the piece I, when it is turned on its pivot *b*.

The rear ends of the connecting pieces H, H', are pivoted to the front ends of the two levers or arms G, G', while the rear ends of the latter turn on a stationary pivot *a*, in
40 rear of the post B.

Cords I', I'', are tied or fastened to the eyes *d*, *d'*, on arms G, G', and pass over pulleys *e*, *e*, *e*, *e*, on post B, and over pulleys *f*, *f*, on the side posts E, E', the outer ends of the
45 cords carrying weights *g*, *g*.

If a carriage approaches the gate all the driver has to do to open the gate, is to pull the end of the cord I', or I'', as the case may be. When he has passed through the gate
50 he pulls the end of the other cord, by which means the gate will be closed again.

Now suppose a carriage to approach the gate from the side where the post E', stands. If the cord I'', is pulled, the other end of the
55 cord attached to the eye *d'*, of arm G', has a tendency to pull the joint between G', and

H', toward the post B, the piece I, yielding to the pressure at the end of the piece H', swings on the pivot *b*, drawing the end of cord *c*, with it, and thus pulling the latch *l*,
60 out of the notch in the plate *k*. If the end of cord I'', is still pulled, the joint between G', and H', now being free to follow the tendency of the end of the cord tied or fastened to the eye *d'*, moves toward the
65 post B, the whole system G, G', H, H', swinging on pivot *a*, as fully shown in the drawings, thus opening the gate as represented in Fig. 2, where the gate is represented nearly wide open. When the carriage
70 has passed the gate and has arrived at the post E, the driver pulls the end of cord I'. The inner end of cord I', attached to the eye *d*, draws the arms G, H, toward the post B, thereby turning the gate back and clos-
75 ing it again.

It will be seen that the action of the parts of my device will be similar to the one above described, only in a reverse direction, when a carriage approaches the gate from the
80 other side and when the cord I', is first pulled. The weights *g*, *g*, serve to keep the cords stretched.

A great advantage in my mode of opening and closing gates consists in the simplicity
85 and durability of the device and the facility and certainty of its operation.

It will be seen that when the gate stands open, the piece H, or H', is the only part of the device which projects in front of the
90 post B, but even this piece H, or H', is close to the post and parallel to the front surface of the post so that there is in fact no part of the device which projects sufficiently far to be liable to be struck by or
95 to interfere with the wheels of a vehicle passing by. It will also be seen that the arrangement of arms G, G', and connecting pieces H, H', is such that the greatest purchase in opening, is obtained when the operation of opening the gate is commenced, because then the angle between the gate and
100 piece H, or H', is largest.

By my arrangement no cords are attached to the gate D, or the device for opening and
105 closing it, which would be liable to be gnawed by animals in the road, or be cut and misplaced by the striking of the wheels of carriages against them. The cord *c*, being arranged between two of the gate bars A, is
110 thereby protected.

I am aware that it is not new for persons

to open and close farm and other gates without leaving their carriages, and that many devices for opening and closing gates in this way have been previously devised. One of these plans is found in the patent of Webber, granted in 1855. I do not therefore wish to be understood as claiming to be the first to construct farm gates in such a manner as that they can be opened by pulling upon a cord or chain, on one side, and then closed by pulling on a similar cord or chain on the other side. But

Having described my improved device for

opening and closing farm and other gates, what I do claim as my invention and desire to secure by Letters Patent, is: 15

The combination of the levers or arms G, G', with the connecting arms H, H', vibrating connecting and unlatching piece I, and cords c, I', I'', when arranged and combined with the gate and posts, substantially as and for the purposes herein set forth. 20

GILBERT YATES.

Witnesses:

HENRY D. KIPP,
THOMAS VEAGIE.