

O. FERGUSON.
Gate.

No. 219,852.

Patented Sept. 23, 1879.

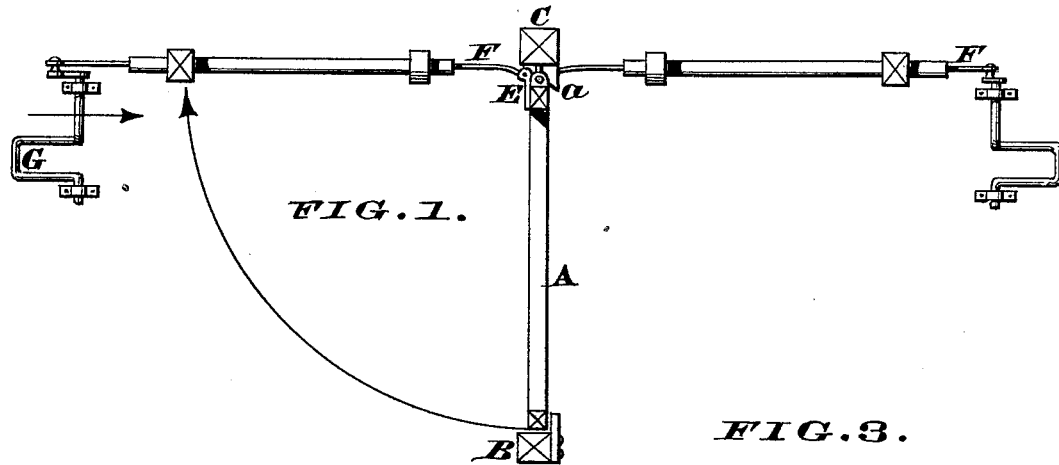


FIG. 1.

FIG. 2.

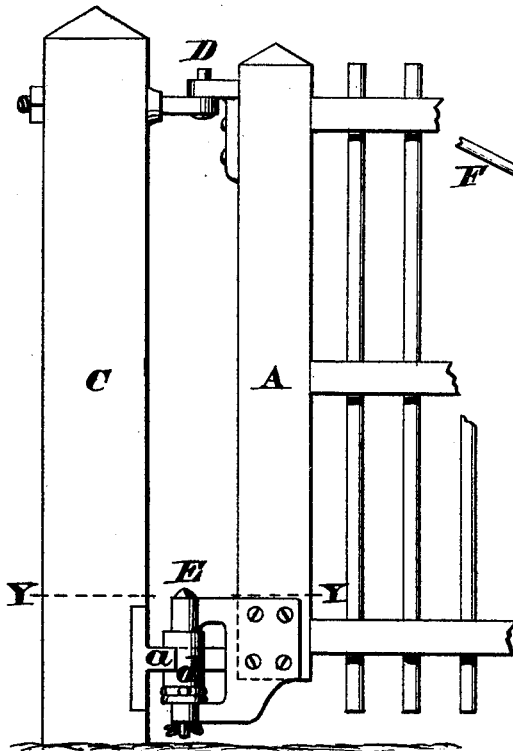


FIG. 3.

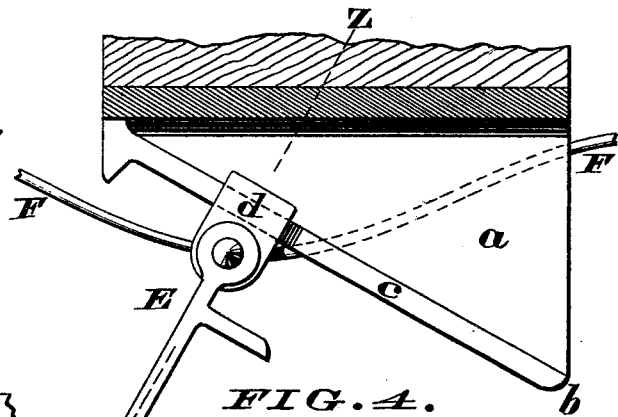
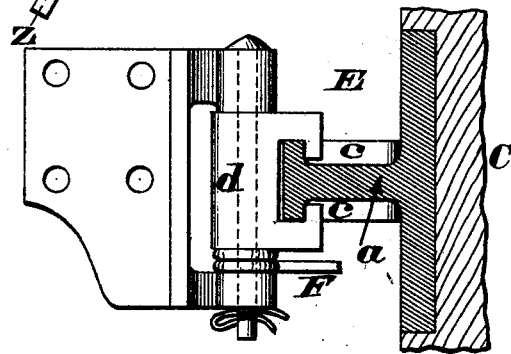


FIG. 4.



Attest.
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UNITED STATES PATENT OFFICE.

OLIVER FERGUSON, OF MILTON, INDIANA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **219,852**, dated September 23, 1879; application filed January 3, 1879.

To all whom it may concern:

Be it known that I, OLIVER FERGUSON, of Milton, Wayne county, Indiana, have invented a certain Improvement in Automatic Farm-Gates, of which the following is a specification.

My invention relates to an improvement in farm-gates that are made to open and close automatically by changing the angle at which the gate hangs, the change being usually made by a rod communicating power applied by a vehicle-wheel as it passes over a curved lever in the usual manner.

The especial matter that I regard as new and useful, and which I desire to cover by this patent, is the peculiar construction of the hinge through which the motion of the lever is communicated to the gate, and whereby the angle of the gate is changed.

In the drawings, Figure 1 is a plan view of the gate and attachment ready to be opened. Fig. 2 is a side elevation of the gate and hinge. Fig. 3 is a horizontal section taken through the line *yy* of Fig. 2, showing the incline of the hinge. Fig. 4 is an enlarged view of the hinge at the lower part of the gate, whereby a change of angle is communicated.

In the drawings, A represents a gate, made in any convenient manner; B, the post against which the same closes; C, the post to which the same is secured by means of the upper hinge, D, and the lower hinge, E. F is the rod communicating power to the lower hinge, which is here shown as passing through a supporting-tube in the manner described and claimed in an application filed at about the same time with this by Linville Ferguson, and by him assigned to me. G is the curved lever against which the wheel is applied to communicate power in the usual manner.

In Fig. 4 the hinge E is shown in full. It consists of three simple castings and the bolt. The principal feature is the harp-shaped slide or incline *e*. The backing of this is secured to the post, as shown, and from the front projects a harp-shaped part or incline, *b*. (Shown more distinctly in Fig. 3.)

Upon the front edge of the incline *b*, I have shown two flanges—an upper and lower one. (Marked *c c*.)

The part of the hinge *d* is made of a piece of metal, with an ordinary hole for the bolt to connect it with that part of the hinge which is attached to the gate, and shown more particularly in Fig. 4, and the front part of the piece is made with two overhanging projections or lips, that close over the flanges *c c*, respectively, and the piece *a*. When this piece *d* is attached to the part connecting it with the gate, and is placed in position overlapping the flanges *c c*, it will be observed that, as the top hinge, D, is stationary, if the part *d* of the lower hinge is brought back about midway of the incline *e* the gate will be in a position of equilibrium, while if the slide *d* is brought to the acute angle the gate is tilted to such an angle that it will close, and if the slide *d* is pushed out to the outer end of the incline *a* the gate will be tilted at such an angle that it will open.

To slide the lower part of the gate, power is communicated through the rods *f f*, one on either side, which, being attached to the down-levers *g g*, operate the gate from a distance by means of the advancing vehicle or by power applied in any other way.

The advantages of this peculiar formation of the hinge are the extreme simplicity of its construction, which makes it cheap, and at the same time prevents it from getting readily out of repair; also, by its construction it is not liable to become obstructed by dirt or other foreign matter accumulating on the parts thus used.

I do not claim to have been the first to have made a hinged gate opened and closed by gravity, as this has been accomplished in many different ways; nor do I claim moving the lower hinge or pintle obliquely to the post, as I am aware that said pintle has been arranged to slide and turn in an obliquely-slotted plate—an arrangement which is objectionable, because the sliding action causes the pintle to wear away rapidly on one side and throw the gate out of position, and because the slot becomes filled with snow and ice, so as to prevent the gate from moving.

I am also aware that it is old to sustain the gate by a roller running on an inclined track or rail upon the ground, and this I do not claim.

I do not claim to be the inventor of the tubular rod-support shown in the drawings, and hereby admit Linville Ferguson to be the first and original inventor thereof; but

What I do claim is—

1. The triangular bracket having at one side a base for application to the face of the fence-post, and at the other side the flange *c*, in combination with the sliding block *d*, constructed and arranged to slide upon said flange, as shown.

2. The combination of the post, the triangular overhanging plate secured to the post above the ground and provided with the flanged edge

c, the block sliding upon and sustained by said edge, and the hinge-plate *E*, connected by a pin to the sliding block.

3. In combination with the inclined plate *a* and sliding block *d*, the actuating-rods *F*, the hinge-plate *E*, embracing the rods and the blocks, and the pintle or hinge-pin connecting the rods, the hinge-plate, and the slide, as shown.

OLIVER FERGUSON.

Witnesses:

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ERNEST H. RYDELL.