P. S. Crawford,

Gate.

No. 112,904. Patented Mar. 21. 1871.

Fig. 1.

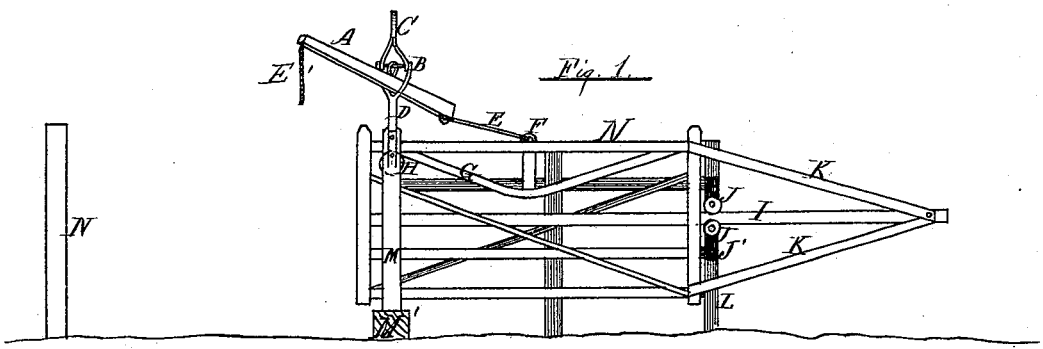


Fig. 2.

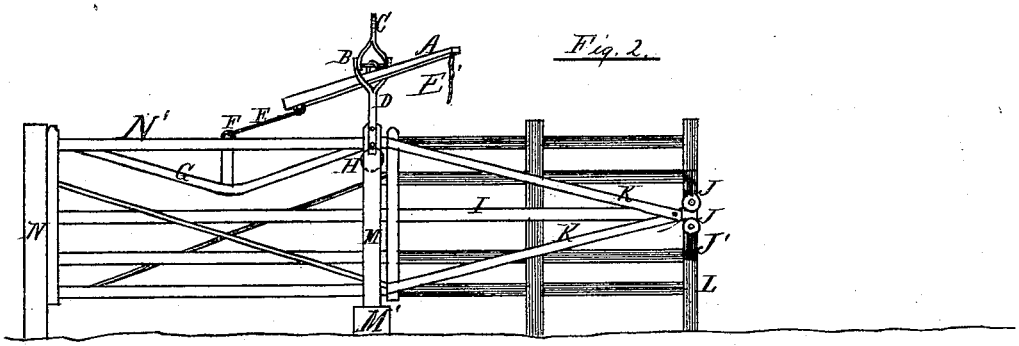


Fig. 3.

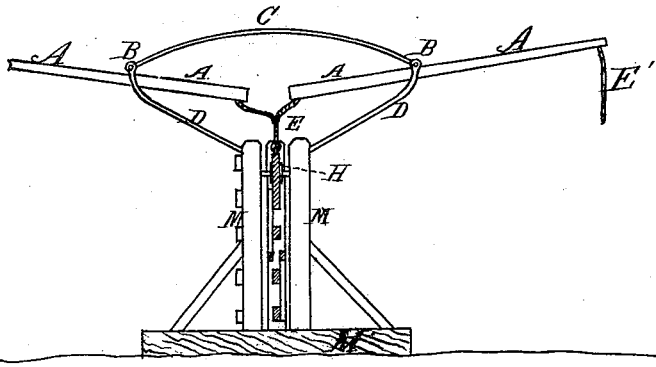
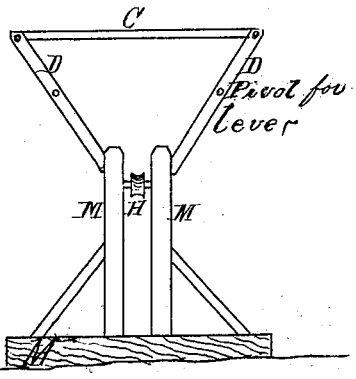


Fig. 4.



Witnesses.

L. D. Bliss.

N. C. Gardner.

Inventor.

Peter D. Crawford.

United States Patent Office.

PETER S. CRAWFORD, OF UNION, ILLINOIS.

Letters Patent No. 112,904, dated March 21, 1871.

IMPROVEMENT IN GATES.

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, PETER S. CRAWFORD, of Union, in the county of McHenry and State of Illinois, have invented an Improved Gate; and I do hereby declare that the following is a full and clear description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing and letters marked thereon making a part of this description, in which—

Figure 1 is a longitudinal elevation of my improved gate in position as when open.

Figure 2, a longitudinal elevation of the gate when shut.

Figure 3, a transverse sectional elevation of the gate.

Figure 4 shows a modification of the frame for supporting the levers.

The present invention relates to an improvement in that class of gates which is arranged to be opened without alighting from a horse or vehicle, and which may be opened by a person on the ground; and

Its novelty consists in the peculiar construction and combination of the parts whereby the above operations are conveniently performed, as the whole is hereinafter fully described.

M M represent two posts, which are secured to a transverse sill, M′, such a distance apart as will readily allow a gate, N′, to slide back and forth between them.

The gate N′ consists of a frame, slats, braces, &c., put together in the ordinary manner of making farm-gates.

The only difference consists in extending the center rail I back far enough to reach two rollers, J, placed such a distance back from the posts M as the gate is to move longitudinally, and in attaching an inverted double-inclined plane, G, to the under side of the top rail of gate, so that the latter, when so moved as to bring the apex of the planes onto a friction-roller, H, the gate will open or shut, as the case may be, by its own gravity.

In order to make the bar I as light as possible and yet strong, it is braced by thin strips of boards K; and in order to prevent the rollers J from wearing the fence-post L, a plate, J′, of iron, is bolted to it, as shown in figs. 1 and 2, the bearings of the rollers extending through the plate for better support.

The means for operating the gate consist of arms D, brace C, levers A, and cords E and E′. The arms D are rigidly attached to the opposite sides of posts M, and are supported at their top ends by means of a curved brace, C, the object of curving it being to give room for the operation of the levers A when the gate is being opened.

The levers A are jointed to the top ends of the braces D, and are connected to gate at F by means of cords E, so that when either lever is brought down with a quick movement, and forward in the opposite direction to which the gate is to move, the apex of the double-inclined plane G will be thrown past the roller H. The gate will then open or close, as the case may be, without the application of further power.

When a simple construction in the parts for supporting the levers A is desired, diagonal arms and a horizontal brace (in fig. 4) or tie may be used instead of parts D C, shown in fig. 3.

The advantage gained in attaching the braces D to the posts M consists in their always being in the same position relative to the gate to be moved. This is not the case when the levers are supported by posts put in the ground, inasmuch as the action of frost frequently upsets such posts and renders the levers inoperative.

A gate thus constructed and arranged is found to be very simple, cheap, and convenient, being readily operated by any person of ordinary strength, while, at the same time, it can be made by any farmer accustomed to build fences and ordinary swing-gates.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

The arms D attached to the posts M, in combination with the brace C, levers A, cords E, gate N′, incline G, center piece I, rollers J H, and braces K, as set forth.

PETER S. CRAWFORD. [L. S.]

Witnesses:

J. D. BLISS,

N. C. GARDNER.