D. M. COCHRAN & L. M. HAWKINS.

Improvement in Gates.

No. 115,167. Patented May 23, 1871.

Fig. 1.

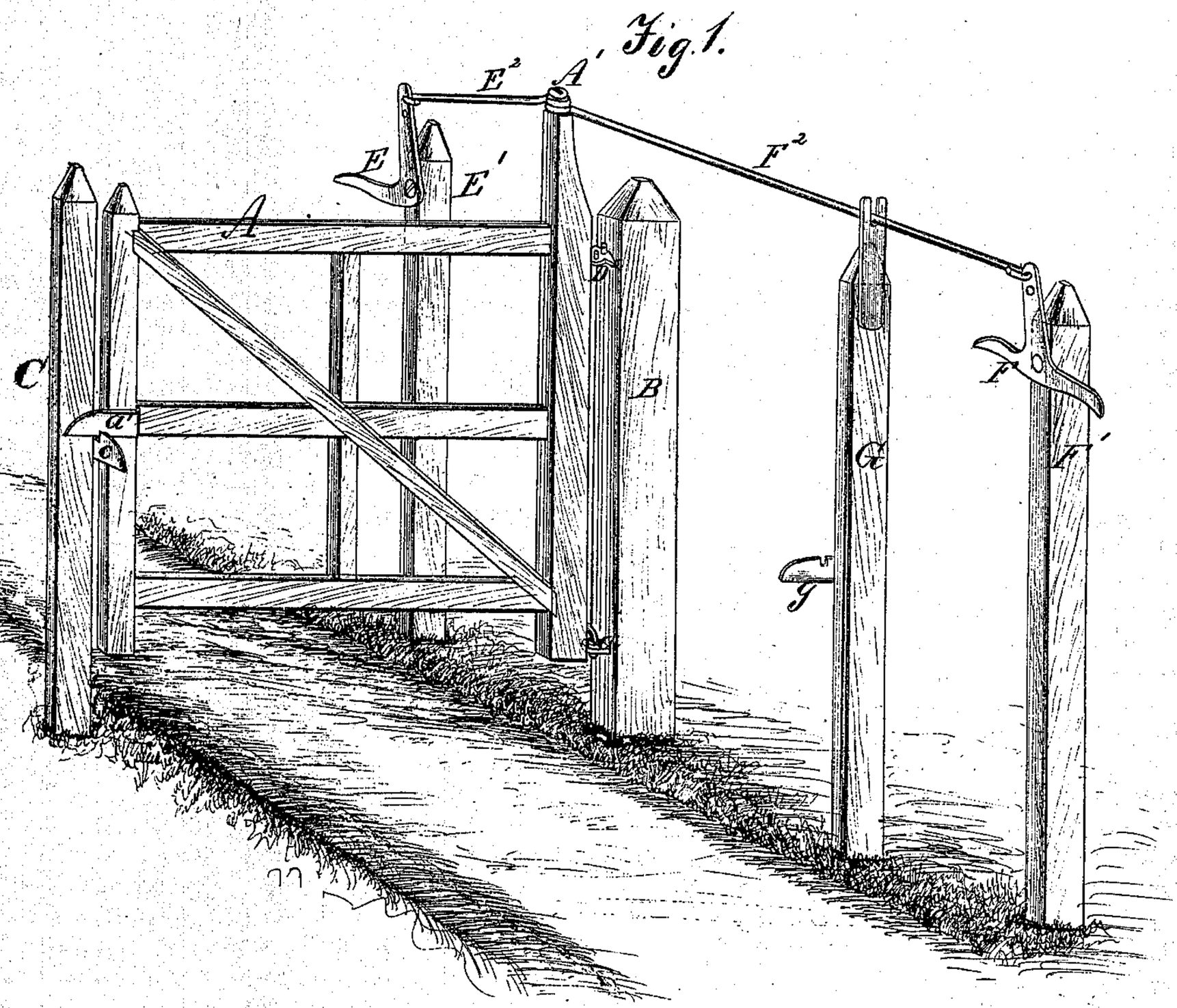
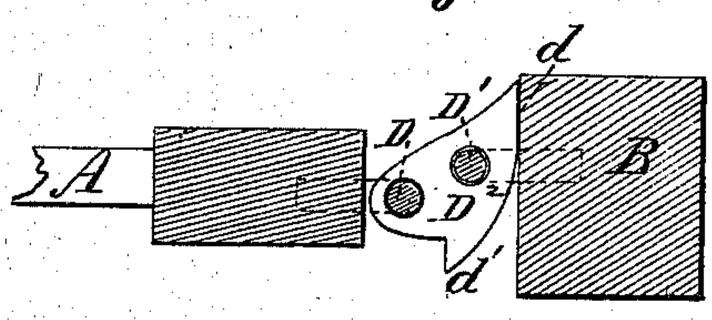


Fig. 2.



Witnesses.
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AM. PHOTO-LITHOGRAPHIC CO. N. Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

DAVID M. COCHRAN AND LINDLEY A. HAWKINS, OF RICHMOND, INDIANA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 115,167, dated May 23, 1871.

To all whom it may concern:

Be it known that we, DAVID M. COCHRAN and LINDLEY A. HAWKINS, both of Richmond, in the county of Wayne and State of Indiana, have invented a certain Improvement in Farm-Gates; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 is a perspective view of the improved gate. Fig. 2 is a horizontal section to show the construction of the upper hinge.

The same letters are used in both figures in the designation of identical parts.

This invention relates to farm-gates so constructed as to enable a person riding in a wagon or carriage to open and close them without dismounting; and the improvement consists in the novel arrangement of some of the parts, to be generally explained in the following description and specifically pointed out in the claim.

The gate A, when closed, stands across the road between two posts, B and C, to the former of which it is hinged, while it is latched to the latter. In this position its weight is supported upon the lower hinge *a* and the catch *c* on the post C, which catch retains the latch *a'*, which is rigidly secured to the outer stile of the gate. In this manner, there being no weight thrown upon the upper hinge, the sagging of the gate is effectually prevented. The lower hinge should be so made that the pintle may have a little play in the socket or eyebolt. The upper hinge consists of two vertical pintles, D and D^1, one of which is secured by a laterally-projecting spike to the stile of the gate, and the other in similar manner to the post B, and which are linked together by a plate, D^2, in form substantially as shown best in Fig. 2. When the gate is closed the side *d* of the plate or link is in contact with the post, and the contiguous side *d'* diverges therefrom at such an angle as to allow the plate to be turned on the pintle D^1 to draw the upper end of the gate toward the post, and thus tilt the gate upon its lower hinge until it outer end is lifted so high that the fixed latch clears the catch. The side *d'* then coming in contact with the post further movement of the link is prevented, and it will remain in this position if the gate be thrown open all the way and latched to the side post G.

It will be observed that the apertures in the plate or link are so arranged as not to stand in a line with the gate when thus opened, but that the one through which the pintle on the post passes stands a little distance to one side of such line, and on the outside thereof, in order to obtain a leverage upon the link for the purpose of turning it to tilt the gate, even if the power be applied in a direct line with the latter.

The gate is arranged to open in one direction only, and is operated from either side by levers E and F, the former being pivoted to a post, E^1, and connected with the gate by means of a connecting-rod, E^2, while the latter is pivoted on a post, F^1, on the other side of the gate, and connected therewith by a connecting-rod, F^2. Between the gate-post B and the post F^1 stands another post, G, already alluded to, provided with a catch, *g*, which is entered by the latch of the gate when swung open all the way. The rods E^2 and F^2 are attached to a stud, A', upon the upper end of the inner stile of the gate, so that the movements of the latter are entirely under the control of the person operating the levers, in consequence of which the gate may be opened to any extent desired; and it can be operated upon inclines and against strong winds, as it does not depend at all upon gravity to open and shut.

We use, by preference, a metallic cap, placed upon the inner stile of the gate, and having the pin A' cast upon it on one side, as far from the pintles on which the gate turns as convenient to obtain the necessary leverage on the gate.

In operating either one of the levers to open or shut the gate the latter is first caused to turn, together with the plate or link D^2, around the pintle D^1 of the post B, tilting the gate on the lower hinge so as to raise its latch out of the catches *c* or *g*, as the case may be, after which it will readily swing open to any point and remain in any position, as the plate D^2, on releasing the levers, at once accommodates itself to the position of the gate.

We are aware that gates of this class have been operated by means of the levers and connecting-rods attached to the gate directly, or

to a fixed arm thereof, so that the movement of the gate can be controlled by the levers; but such gates have always been hung upon common hinges, so that it became necessary to employ a mechanism to lift the latch out of the keeper.

Our invention differs from these gates in dispensing with this latch-lifting mechanism and using a link-hinge on top for tilting the gate so as to raise its fixed latch out of the catch before it opens or closes.

What we claim as our invention, and desire to secure by Letters Patent, is—

In combination with the gate A, the upper hinge, consisting of the parts D, D^1, and D^2, levers E F, and connecting-rods E^2 and F^2, the latter being attached directly to the gate, all arranged to operate substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

DAVID M. COCHRAN.
LINDLEY A. HAWKINS.

Witnesses:
JOHN W. THOMPSON,
ELAM B. HILL.