B. F. Fisk,

Gate.

No. 89,301. Patented Apr. 27, 1869.

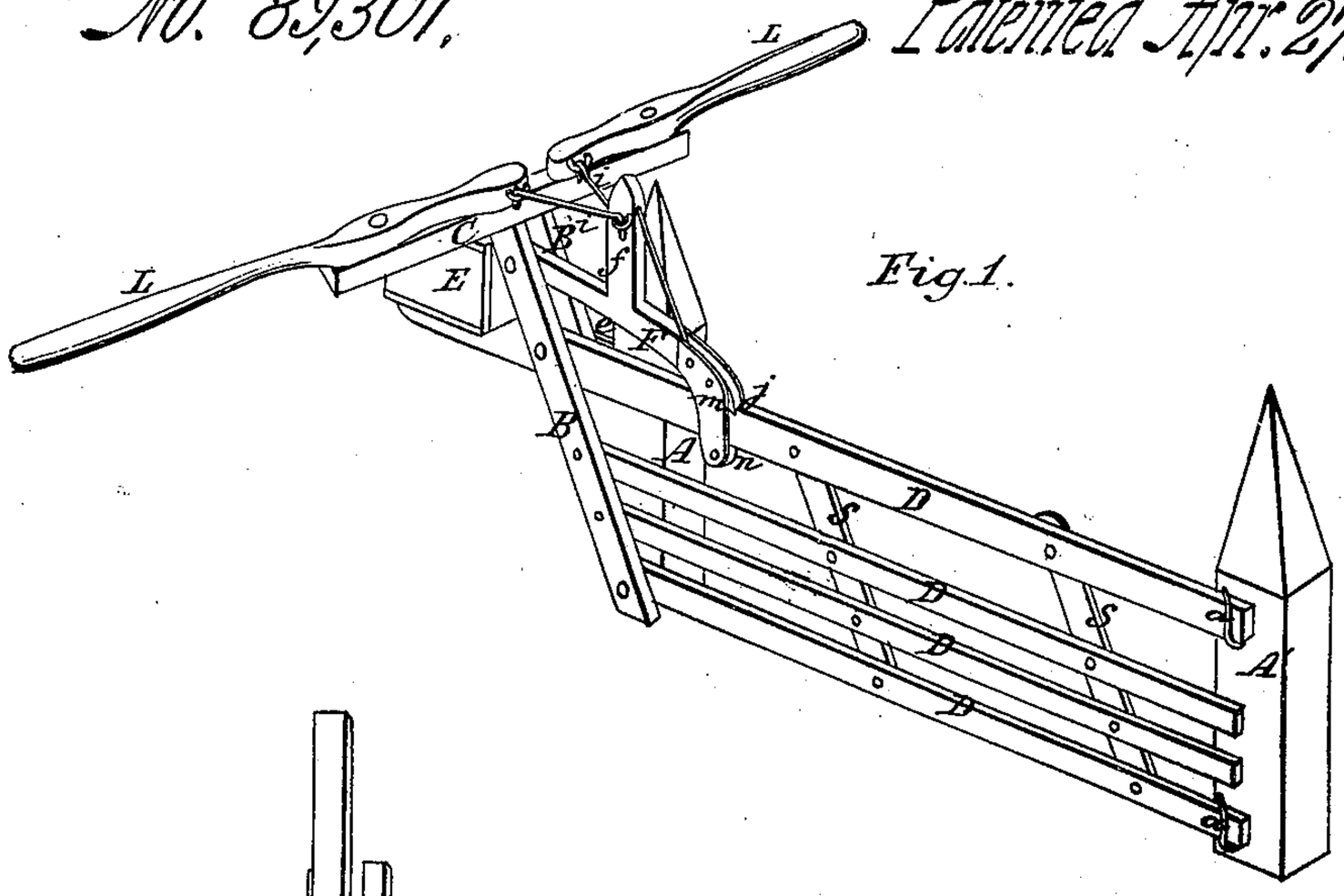

Fig. 1.

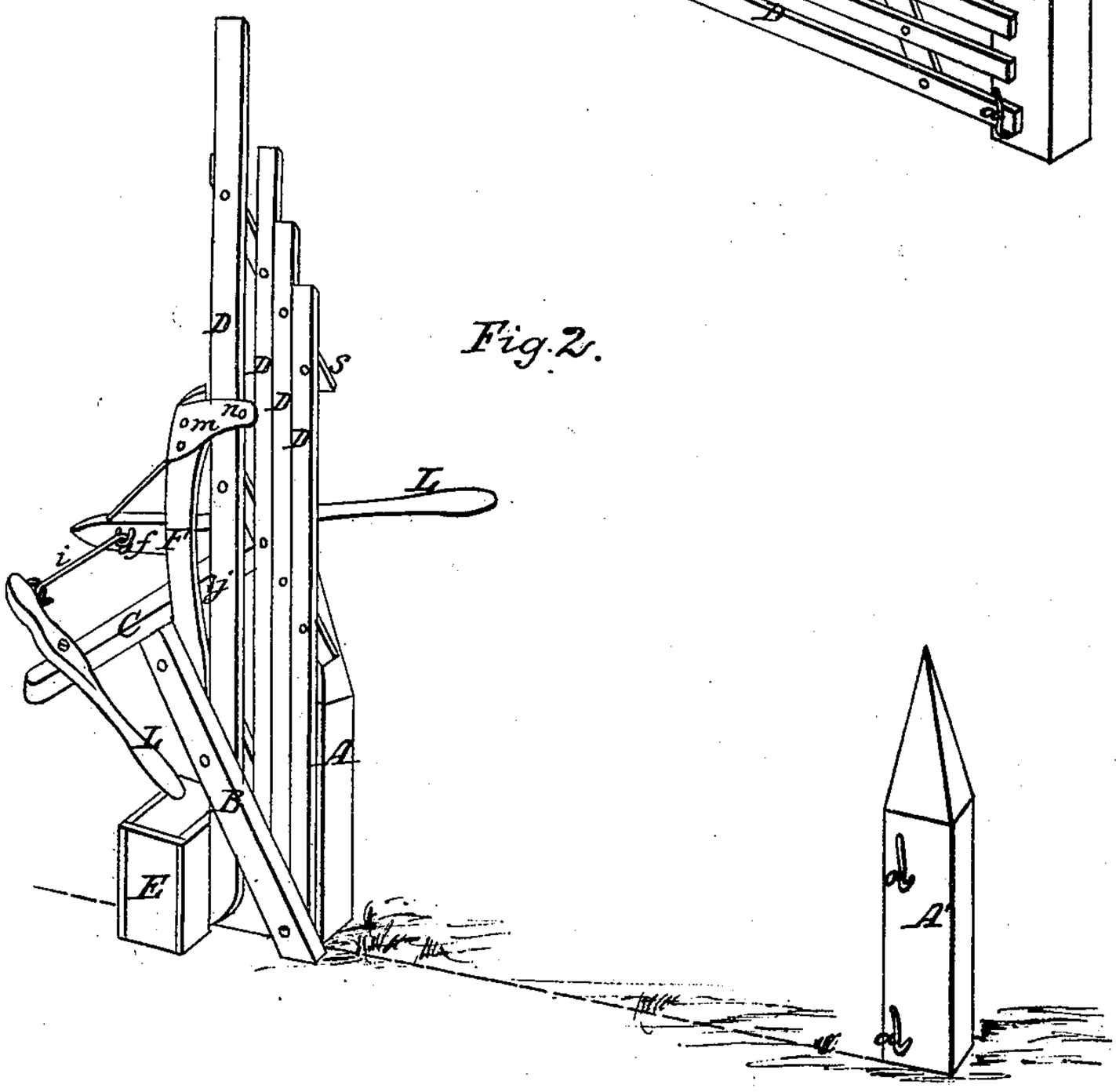

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

BENJIMAN FRANKLIN FISK, OF FREDONIA TOWNSHIP, CALHOUN COUNTY, MICHIGAN.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **89,301**, dated April 27, 1869.

To all whom it may concern:

Be it known that I, BENJIMAN FRANKLIN FISK, of the township of Fredonia, in the county of Calhoun and State of Michigan, have invented a new and useful Improvement in Gates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, forming a part of this specification, in which—

Figure 1 is a view of the operating parts in perspective, the gate being shut. Fig. 2 is a similar view, the gate being open.

Similar letters of reference indicate like parts in both figures.

My invention relates to that class of gates pivoted together, the rails of which fold up close when the gate is opened, by swinging upward in a vertical plane; and consists in an improved arrangement of hanging posts, in connection with certain permanent and detachable devices for lifting, lowering, and self-latching the gate from on horseback, from a vehicle, or on foot, as may be convenient or necessary; and to better enable skilled artisans to construct my said improvements, I will now proceed, with sufficient minuteness, to describe the same.

The figures in the drawing exhibit my gate as seen from inside the lot.

In my improved arrangement for hanging this gate I set two stout gate-posts (seen at A A′) firmly in the ground. The post A′, against which the gate shuts, is provided with two open side staples, *a*, to receive the upper and lower rail ends; but to the post A, I connect a hanging frame in the following manner: This hanging frame is composed of two inclined posts, B, as seen, extending upward a sufficient distance above and from the gate, which posts are framed, at top, into the center of a cross-bar, C, extending a proper distance on both sides at a right angle with the gate and fence; and the space between the inclined posts should be just enough to admit the rails D of the gate between. The hanging frame is firmly secured at the proper angle of inclination to the inner face of the main post A; and I usually connect it by sinking one of the inclined posts in a suitable groove in said main post, and secure it by spike-nails or bolts; and it may be further stiffened by a stay, *e*, above where the two posts diverge.

The rails D of the gate are pivoted centrally to slats S, in such manner that said slats will be parallel with the inclined posts to which the rails are jointed in every position of the gate, the rails, which increase in length upward, having their ends inserted between the inclined posts, and are there pivoted by a pivot-bolt through each. The upper rail, however, which I usually make deeper than the rest, has its outer end project beyond its pivot a distance nearly equal to the height of its pivot from the ground, and carries a counter-balance-weight, E, similar to those used in other gates of like kind.

F represents what I term a "latching-elevator," because it not only is instrumental in elevating the gate, but latches it when it is lowered or shut, so that it cannot be lifted by animals trying to work through between the bottom rail and the ground. The latching-elevator is simply a wooden bar, one end of which is pivoted between the hanging-frame posts, near the top, the other end resting in a notch made in the top rail of the gate, as may be clearly seen at *j*. I usually furnish the latching-elevator with a short stud, *f*, braced in front, as seen, and provided with an eye-bolt on each side, in which are hooked two rods, *i*, connecting it with the short inner ends of the two horizontal levers L, pivoted to the cross-bar C of the hanging frame.

The end bearing, in which the top rail of the gate works, may be formed by a pair of side straps, to one of which, as seen at *m*, an overhanging roller (not shown) can be hung to a pivot-stud, *n*, under the rail. The opposite strap can only lap past the rail enough to serve as a guide, for it must slide clear of the ends of the gate-slats.

The angle of inclination and height of the hanging frame are determined by the space necessary to admit the gate when folded, as seen in Fig. 2, and to permit the larger animals to pass freely under the projecting levers.

It will be readily seen that, when either of the levers L, in the positions shown in Fig. 1, is turned toward the shut gate, the latching-elevator will be first drawn out of the notch *j*; and as it is further lifted or vibrated upward

it will carry with it the gate, the roller traveling on the under edge of the top rail, and, the counter-balance being nicely adjusted, a slight impulsive shove or pull in passing will open or close the gate, which is done by the reverse motion. The operator, in a vehicle, may therefore throw open the gate without materially changing motion or actually stopping, and shut it after passing through by giving the requisite impulsive motion to the levers by his hands.

Should the levers be in the way of bulky loads, they may be readily removed by first unhooking the rods *i*, and the gate operated by hand.

My arrangement consists of but few parts, simple and inexpensive. It is strong, as the weight of the gate is chiefly thrown on the foot of the main post. It affords plenty of room for folding and a favorable action of counter-balance; and the rail ends, when folded, form a line of retreating angle, favoring the passage of bulky loads.

I do not claim pivoting the rails and slats of a gate provided with a counter-balance so that said rails will close up when the gate is opened by moving in a vertical plane. Nor do I claim, irrespectively, operating such gate from a vehicle, &c., by means of levers or cords; but

What I do claim as new and my invention, and desire to secure by Letters Patent, is this:

1. I claim the latching-elevator F and inclined hanging posts B, in combination with the main gate-post A, and pivoted rails D, and slats S of a counterbalanced gate, substantially as and for the purpose described.

2. I claim the arrangement and combination of the two horizontal levers L with the cross-bar C of the inclined hanging frame B C, when said levers are so connected with the latching-elevator F as to be capable of actuating it in operating a pivoted folding gate from a vehicle or on horseback, substantially as set forth.

BENJIMAN F. FISK.

Witnesses:
ROBERT SAYLOR,
OTTO L. JOHNSON.