

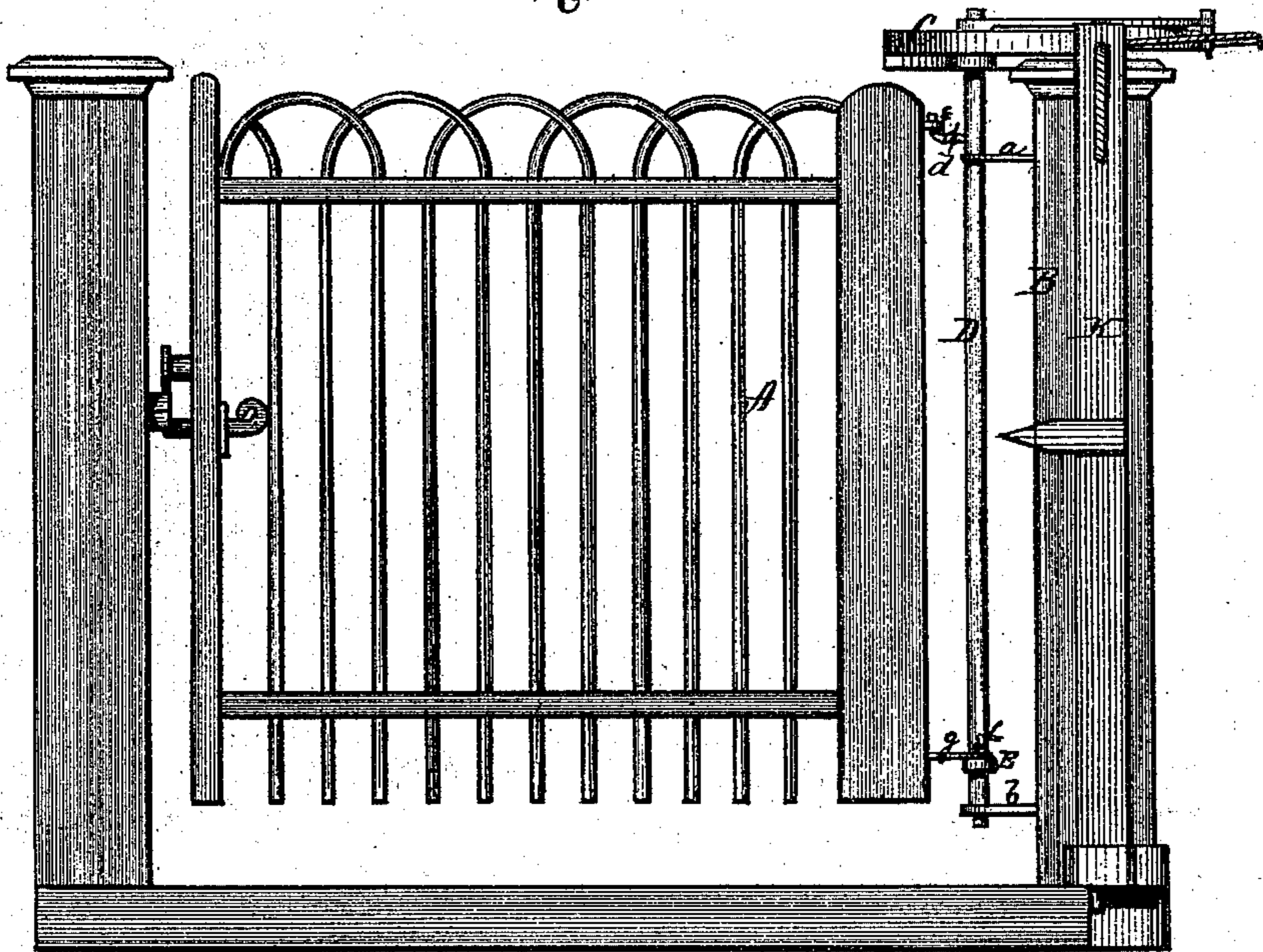
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*Gate.*

No. 97,745.

*Patented Dec. 7. 1869.*

Fig. 1.



*Fig. 5.*



Fig. 3.



*Fig. 2.*

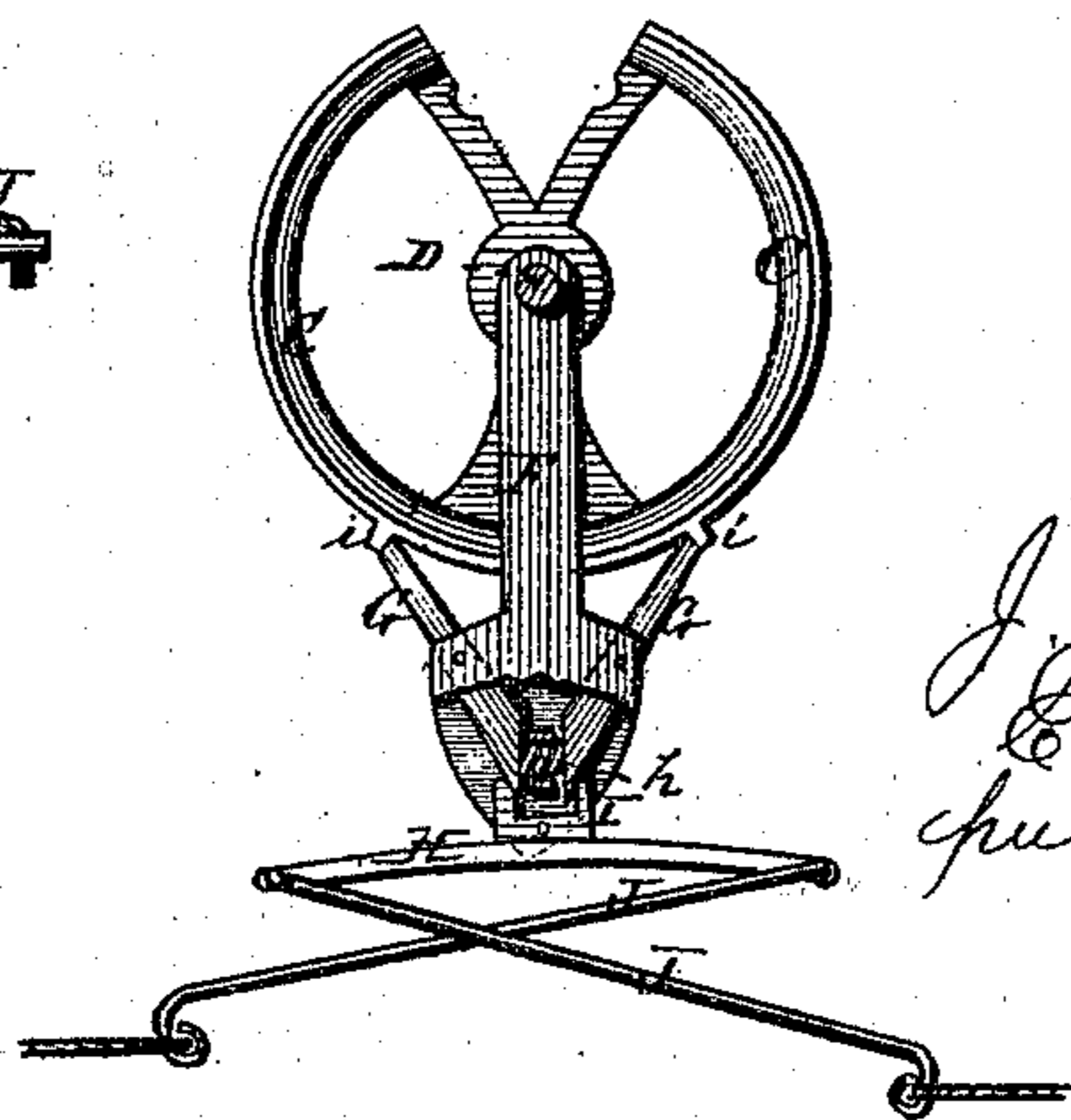


Fig. 4.



Witnesses  
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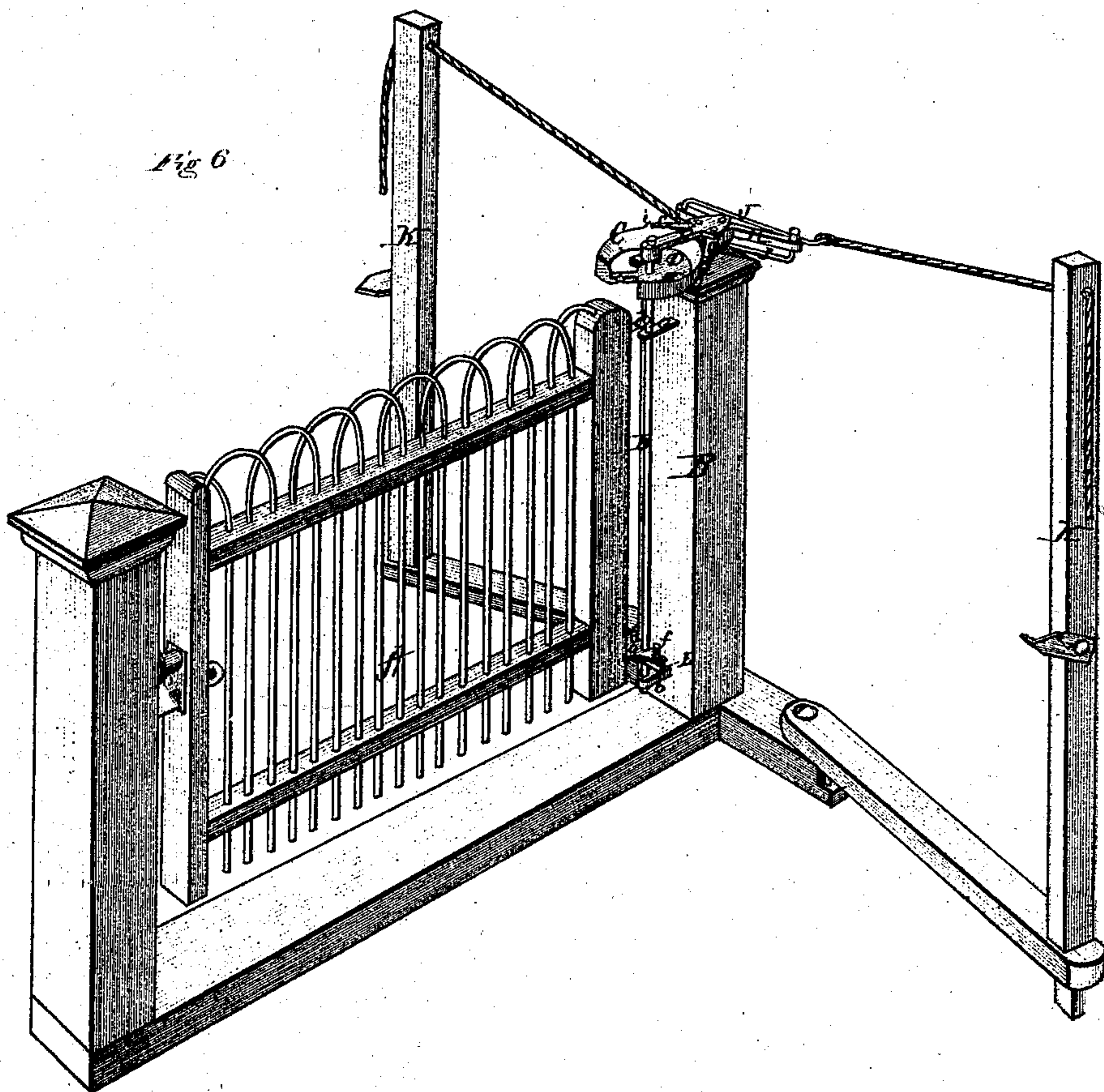
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Gate.

No. 97,745.

Patented Dec. 7. 1869.

Fig 6



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# United States Patent Office.

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Letters Patent No. 97,745, dated December 7, 1869.

## IMPROVEMENT IN GATE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JAMES A. WOOD and EDWARD V. MARBAKER, of Crosswicks, in the county of Burlington, and in the State of New Jersey, have invented certain new and useful Improvements in Gate and Hinge; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction of a "gate and hinge," consisting of a movable rod or shaft, provided with suitable pivots, on which the gate is hung, and working in connection with a crank, having two pulls and a lever, which is provided with rods, for opening and closing the gate, the whole supported by, and working in connection with a stationary circular ring, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which our invention appertains, to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view of a gate and gate-posts, with the hinge complete;

Figure 2 is a plan view of the stationary circular ring, with the crank, pulls, lever, and rods;

Figure 3 is a rear view of the lever, showing the manner of attaching the rods by which the gate is operated;

Figure 4 is a front view of the lower portion of the movable rod or shaft, showing the lower pivots, on which the gate is hung;

Figure 5 is a plan view of the plate, at or near the lower end of the gate, to support the gate on the lower pivots of the movable shaft; and

Figure 6 represents a perspective view of the gate and hinge.

A represents the gate, made in any of the known and usual ways, and

B is the post, to which the gate is hung.

On top of the post B, is secured a circular ring, C, through the centre of which passes a movable shaft or rod, D, which runs downward parallel with the post B, passing through a guide-plate, *a*, and resting on another plate, *b*, a tenon being formed on the lower end of the shaft, and inserted into the plate *b*.

Above the guide *a*, the shaft D is provided with a pivot, *d*, on which a loop, *e*, at the upper end of the gate, is hung; and above the lower plate *b*, on the shaft, is an arm, E, extending on both sides of the shaft, and having at each end a pivot, *f*.

At or near the lower end of the gate, is secured a

plate, *g*, having in the centre of its rear edge a semi-circular notch, of sufficient size to span the shaft D, while on each side of said notch is another smaller semi-circular notch, to fit around the lower pivots *f f*. This plate, with notches, is shown in fig. 5.

At the upper end of the shaft D, is secured a crank, F, which rests on the circumference of the circle O, and is, at its rear end, on the under side, provided with a box-like projection, in which are pivoted two pulls or dogs, G G, which extend, one on each side of the crank, and their front ends rest against projections *i i*, on the outer circumference of the circle C, while their rear ends are within the box on the crank F, pressed apart by a spiral or other spring, *h*, as seen in fig. 2.

At the rear end of the box, on the crank, is pivoted a lever, H, which is provided in the centre with a clamp-like projection, I, extending inward into the box, and embracing the rear ends of the pulls G G.

To the ends of the lever H, are pivoted rods J J, which, by ropes or chains, are connected with posts K K, placed one on each side, and a suitable distance from the gate-post B.

The rods J J are attached to the lever H, in such a manner, that when crossed, which is their proper position, one shall be above and the other below the lever.

The gate A is latched by any suitably-constructed lock.

When the latch is opened by hand, the gate will turn on the upper pivot *d* and on one of the lower pivots *f*, the shaft D being held stationary by the pulls G G, bearing against the projections *i i* on the circle C.

When a vehicle, or a person on horseback is approaching the gate, the gate may be opened without dismounting, by the following means:

The person pulls on the rope attached to the rod J, when the clamp I raises or releases the pull G nearest to the operator from the projection *i*, which allows the crank F to turn, turning at the same time the shaft D. Then, by the action of the bar E, pivots *f f*, and plate *g*, the front end of the gate is raised up sufficiently to allow the lock, if properly constructed, to unlatch itself, when the gate will turn away from the operator, and allow him to pass through. In like manner, after passing through the gate, the operator can close the same, by pulling on the rope connected with the other rod J, the pulls G G catching on the projections *i i*, as soon as the crank has turned far enough around.

Having thus fully described our invention,

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

1. The movable shaft or rod D, provided with pivot *d*, arm E, and pivots *ff*, substantially as and for the purposes herein set forth.

2. In combination with the arm E and pivots *ff*, the plate *g*, constructed as described, and for the purposes set forth.

3. The crank F, secured to the upper end of the shaft D, and provided at its rear end with a box-like projection, in which the pulls G G are pivoted, all substantially as and for the purposes herein set forth.

4. The arrangement of the pawls G G and spring *h*, in combination with the projections *ii* on the circle C, substantially as and for the purposes set forth.

5. The lever H, provided at its centre with the

clamp I, and having a rod, J, attached at each end, substantially as and for the purposes set forth.

6. The arrangement and combination of the movable shaft or rod D, provided with pivots *d* and *ff*, crank F, pawls G G, lever H, rods J J, and circle C, all constructed as described, and operating substantially in the manner and for the purposes herein set forth.

In testimony that we claim the foregoing, we have hereunto set our hands, this 18th day of August, 1869.

JAMES A. WOOD.

Witnesses: EDWARD V. MARBAKER.

HUDSON S. ELLIS,

REUBEN M. HARTMAN.