

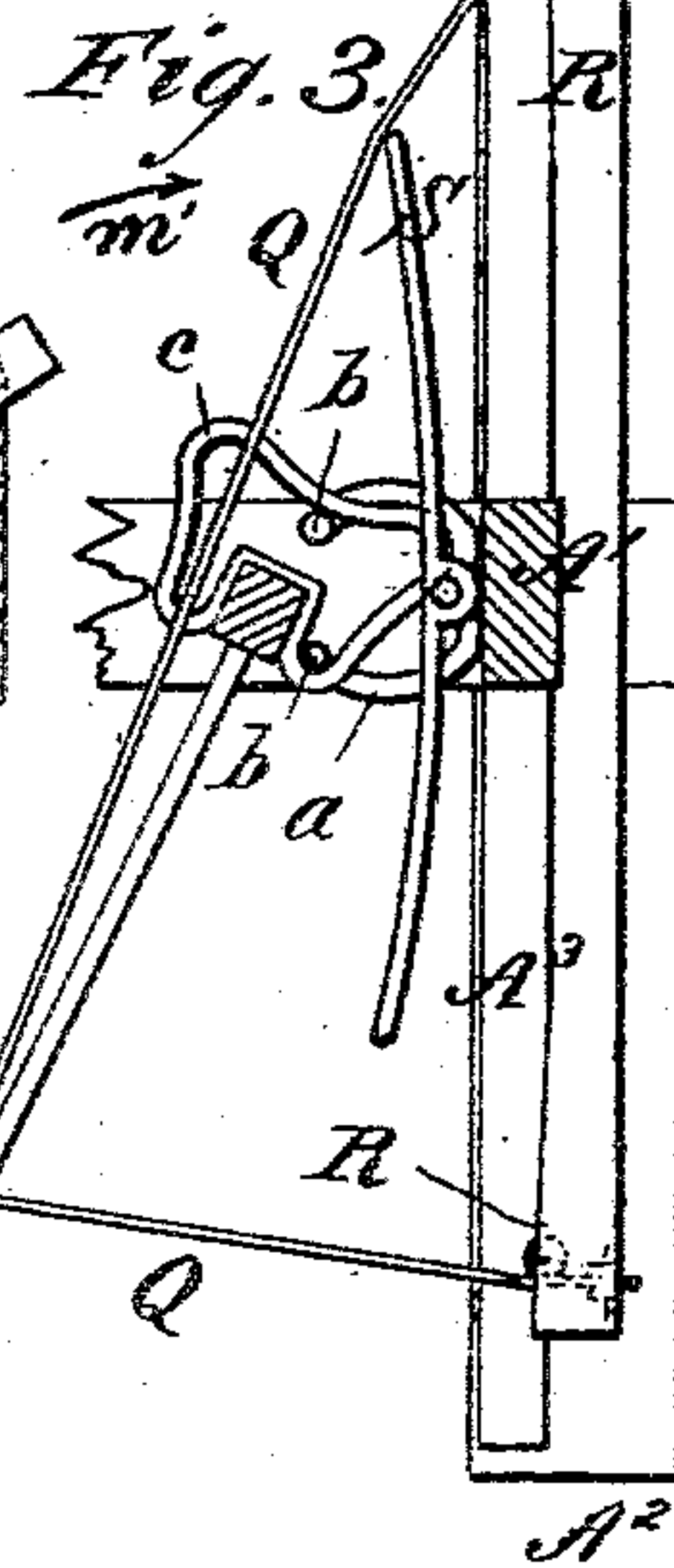
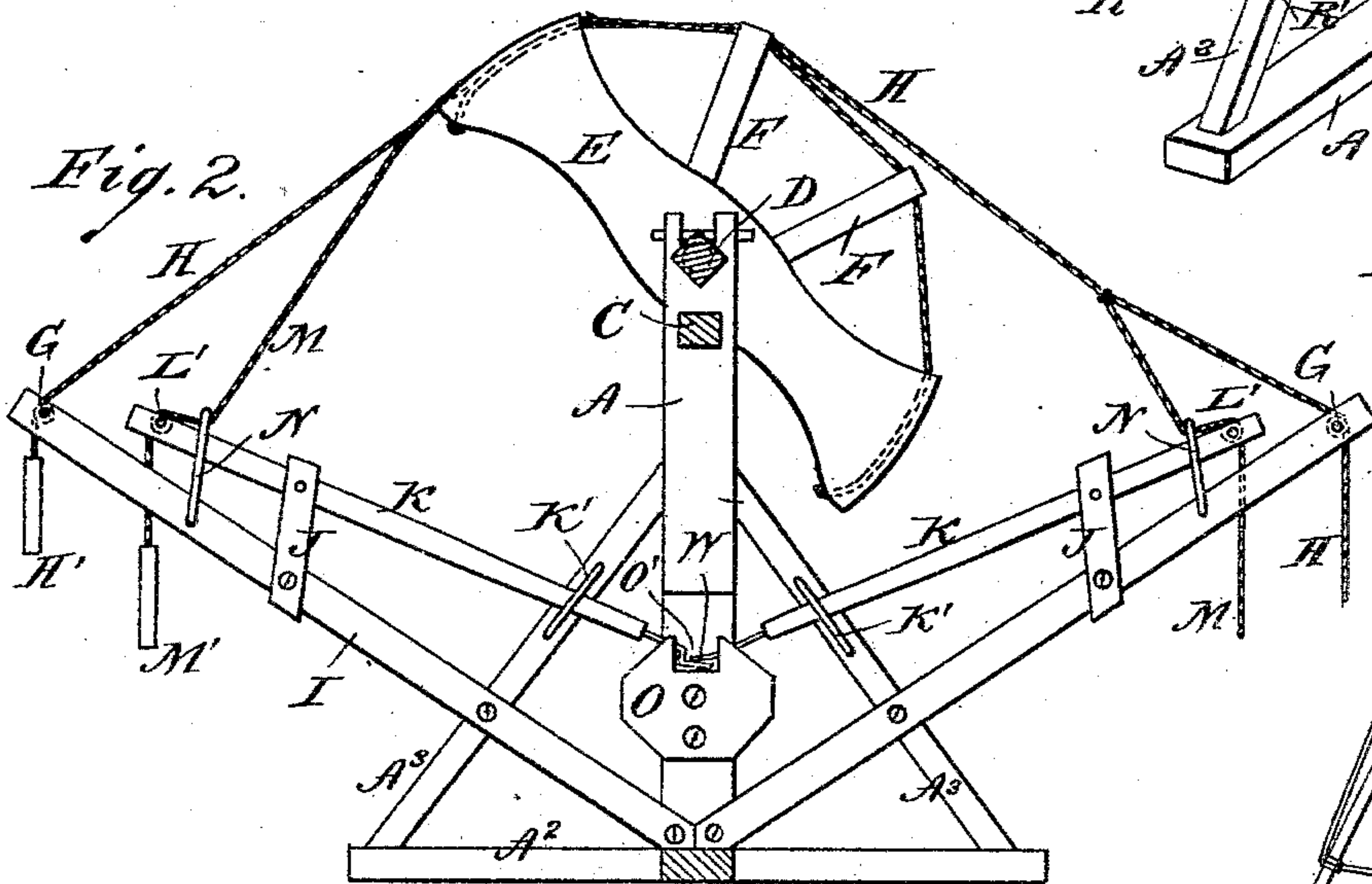
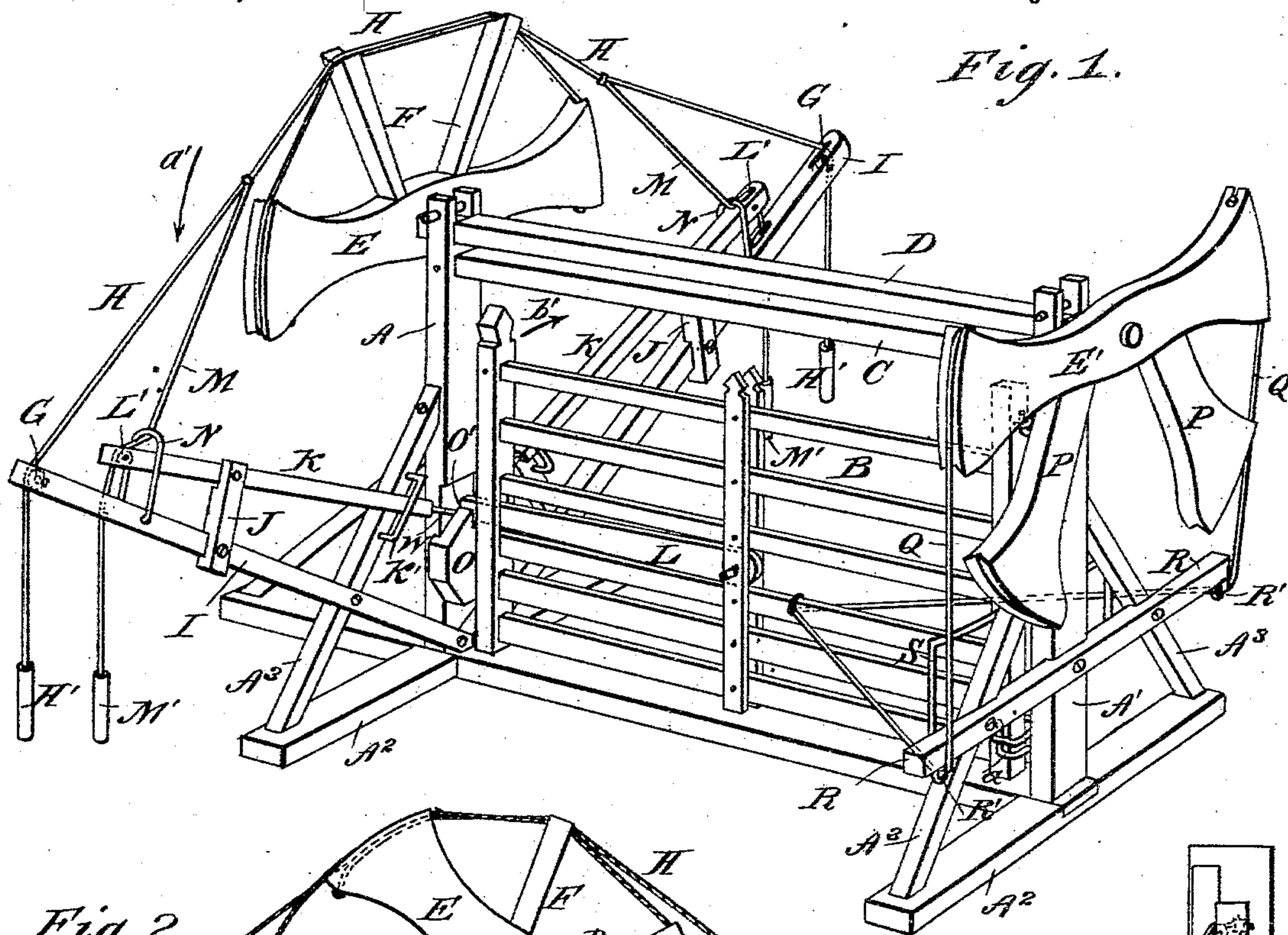
(Model.)

J. F. HOPGOOD.

GATE.

No. 321,604.

Patented July 7, 1885.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN F. HOPGOOD, OF MORGANFIELD, KENTUCKY.

## GATE.

SPECIFICATION forming part of Letters Patent No. 321,604, dated July 7, 1885.

Application filed February 26, 1885. (Model.)

*To all whom it may concern:*

Be it known that I, JOHN F. HOPGOOD, of Morganfield, in the county of Union and State of Kentucky, have invented a new and Improved Gate, of which the following is a full, clear, and exact description.

This invention relates to that class of gates which can be opened from either side by a pedestrian or a person in a vehicle by pulling on a rope or wire.

The object of my invention is to simplify the construction and to facilitate the opening of the gate.

The invention consists in the arrangements, combinations of parts and details, and combinations of the same, as will be fully described and set forth hereinafter, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved gate. Fig. 2 is a cross-sectional elevation of the same. Fig. 3 is a sectional plan view of part of the same, the gate being opened.

The two standards A A', at the ends of the gate B, are secured on bases A<sup>2</sup> and braced by braces A<sup>3</sup>. The gate B is hinged on the standard A', either by means of ordinary hinges or by means of a hinge formed of a U-shaped rod, a, secured on the post, and having two upwardly-projecting prongs, b, projecting through a loop, c, on the end post of the gate.

The posts or standards A A' are united by a top rail, C, and above the same a bar, D, is arranged to turn on its longitudinal axis in the upper forked ends of the standards A A'. On the ends of the bar D the cross-pieces E and E' are secured, having segmental grooved ends.

From the top edge of the cross-piece E two arms, F, project upward, and are inclined from each other.

From the bottom of the post or standard A two bars, I, are inclined upward and outward, and are secured on the braces A<sup>3</sup>, and on the outer end of each bar I a pulley, G, is pivoted.

On each end of the cross-piece E a rope or wire, H, is secured, and is passed over the upper

notched ends of the arms F, and over the pulley G on the bar I at that side of the gate opposite the one at which the rope or wire H is secured on the cross-piece E. A handle-piece, H', is secured on the free end of each wire or rope H.

From each bar I an arm, J, projects upward, on each of which a lever, K, is pivoted, from the inner lower end of which a wire, W, projects under the end of a latch-lever, L, pivoted on the gate B. A pulley, L', is pivoted in the outer end of the lever K.

A rope or wire, M, has one end secured to the adjacent rope or wire H, and is passed over the pulley L', and has a handle-piece, M', on its other end.

A wire loop, N, secured to the bar I, is passed over the outer end of the lever K. The lever K is guided by a wire guide, K', on the brace A<sup>3</sup>.

A block, O, having beveled top edges and a notch or recess, O', in the middle of the top edge, is secured on the inner side of the standard or post A, and into the said notch the swinging ends of the latch-levers L can pass.

The cross-piece E' is provided with two arms, P, inclined downward and from each other, and having their lower segmental edges grooved lengthwise.

On each end of the cross-piece E' one end of a rope or wire, Q, is secured, which is passed through an eye, R', on the end of a cross-bar, R, on the post A', and the other end of the rope or wire is secured to the gate B at or near the middle.

A wire spring-guard, S, is pivoted to the inner side of the post A', against the ends of which guard the gate can strike to protect it from injury.

The operation is as follows: To open the gate, a wire or rope, M, is pulled, whereby the outer end of the corresponding lever, K, is pulled down, and the latch L is raised. The rope M then pulls on the rope H and swings the cross-piece E in the direction of the arrow a', the cross-piece E' being swung in the same direction, thereby pulling on the rope Q on that side of the gate opposite the one at which the rope M is pulled, thus swinging the gate in the direction of the arrow b'. The gate is thus opened, and can be opened in a like manner by a person coming from the opposite side



of the gate. After the person has passed between the posts he pulls on the rope H on that side of the gate at which he now is, thereby swinging the cross-pieces E E' in the inverse direction of the arrow *a'*, and swinging the gate in the inverse direction of the arrow *b'*. The latch-lever L snaps into the notch L', and the gate is closed. The loops N cause the ropes or wires M to force the ends of the levers K downward. The arms P draw the cords or wires Q taut when the cross-piece E' is turned or swung. When the gate is open, it rests against one end of the pivoted spring-guard frame S, and the rope Q, which is used to close the gate, rests against the other end of the spring-guard frame S. By pulling on the rope or wire Q that end of the frame S against which the rope rests is pressed in the direction of the arrow *m'*, Fig. 3, and thereby the other end is swung in the inverse direction of the said arrow, and starts the gate.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

25 1. The combination, with the standards or posts A A' and the gate B, of the bar D, arranged to turn on the posts, the cross-pieces E and E', ropes or wires for swinging the cross-piece E, and ropes or wires connecting the cross-piece E' with the gate, substantially as  
30 herein shown and described.

2. The combination, with the standards or posts A A' and the gate B, of the bar D, arranged to turn on the posts A A', the cross-  
35 pieces E E' on the ends of the bar D, the cross-bar R on the post A', and wires or ropes secured to the ends of the cross-piece E' and to the gate, and passed through eyes on the cross-bar R, substantially as herein shown and de-  
40 scribed.

3. The combination, with the standards or

posts A A' and the gate B, of the bar D, arranged to turn on the posts, the cross-pieces E E' on the ends of the bar D, ropes or wires connecting the ends of the cross-piece E' with  
45 the gate, the bars I, and the wires or ropes H, secured to the ends of the cross-piece E and passed over pulleys on the end of the bars I, substantially as herein shown and described.

4. The combination, with the standards or  
50 posts A A' and the gate B, of the bar D, the cross-pieces E E', the wires or ropes Q, connecting the ends of the cross-piece E' with the gate, the bars I, the levers K, the latch-lever L, pivoted on the gate, the wires or ropes H,  
55 secured to the ends of the cross-piece E and passed over pulleys on the ends of the bars I, and the ropes or wires M, connected with the ropes or wires H and passed over the pulleys on the ends of the levers K, substantially as  
60 herein shown and described.

5. The combination, with the standards or posts A A' and the gate B, of the bar D, the cross-pieces E E' on the ends of the same, the  
65 ropes or wires Q, connecting the ends of the cross-piece E' with the gate, the bars I, the levers K, the ropes or wires H, secured on the ends of the cross-piece E and passed over pulleys on the ends of the bars I, the ropes or  
70 wires M, secured to the wires or ropes H and passed over pulleys on the ends of the levers K, the loops N, the latch L, and the block O on the post A, substantially as herein shown and described.

6. The combination, with a hinged gate, of  
75 the guard S, pivoted at or near its middle portion to the post to which the gate is hinged, substantially as herein shown and described.

JOHN F. HOPGOOD.

Witnesses:

LOUIS CURRY,  
JNO. H. WALL.