

(Model.)

G. D. HERRING.

GATE.

No. 248,040.

Patented Oct. 11, 1881.

Fig. 1.

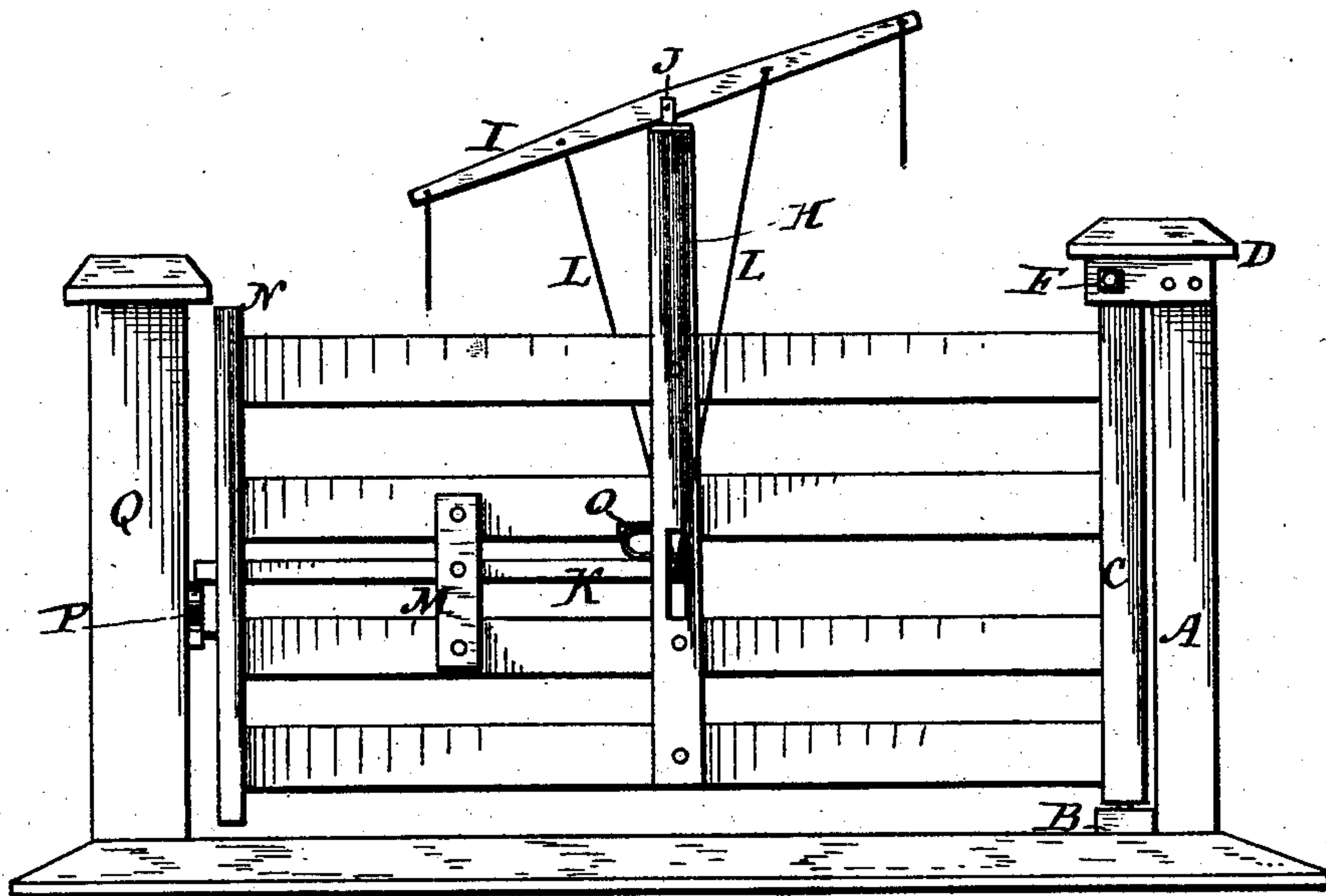


Fig. 2.

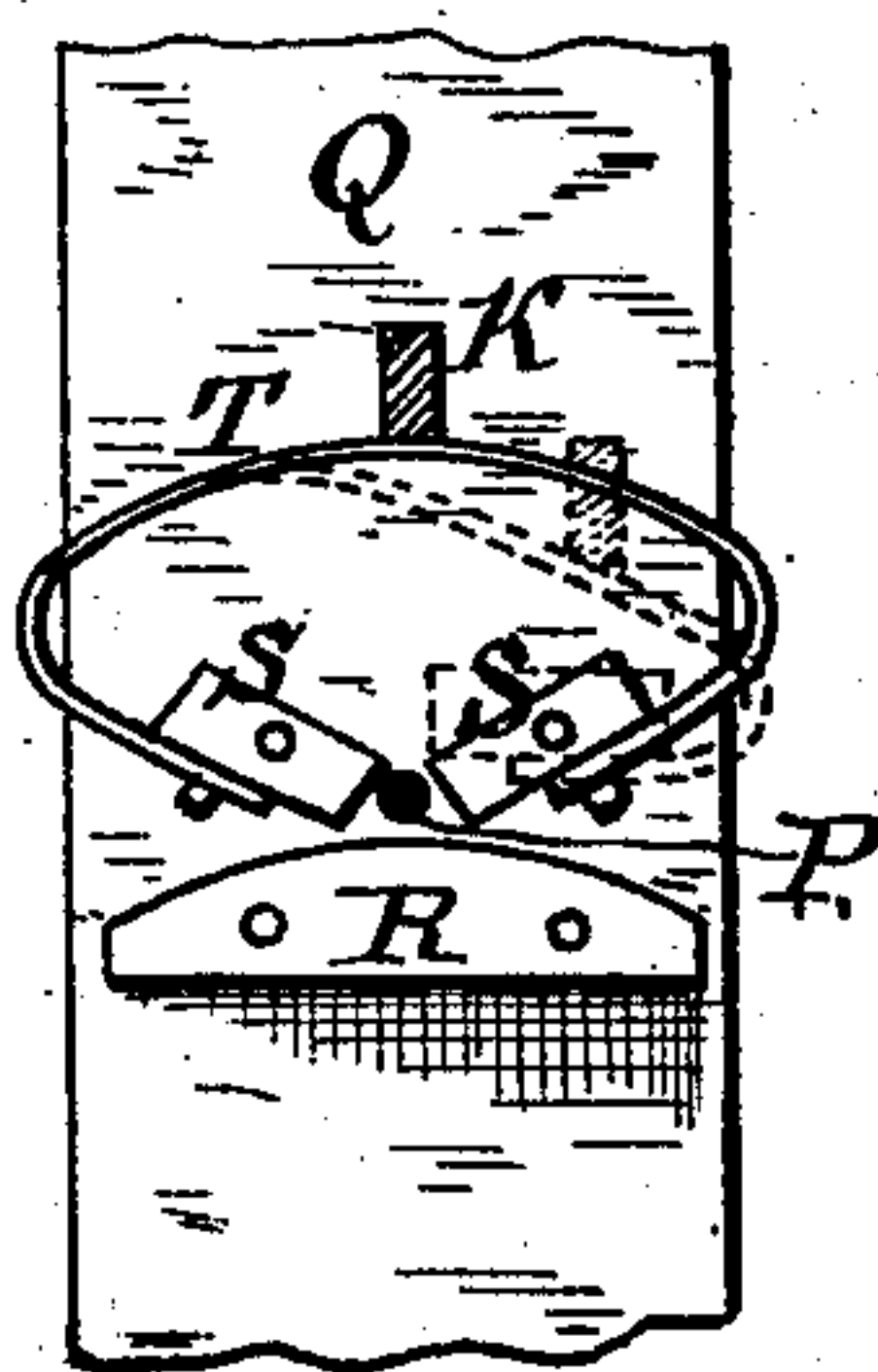


Fig. 3.

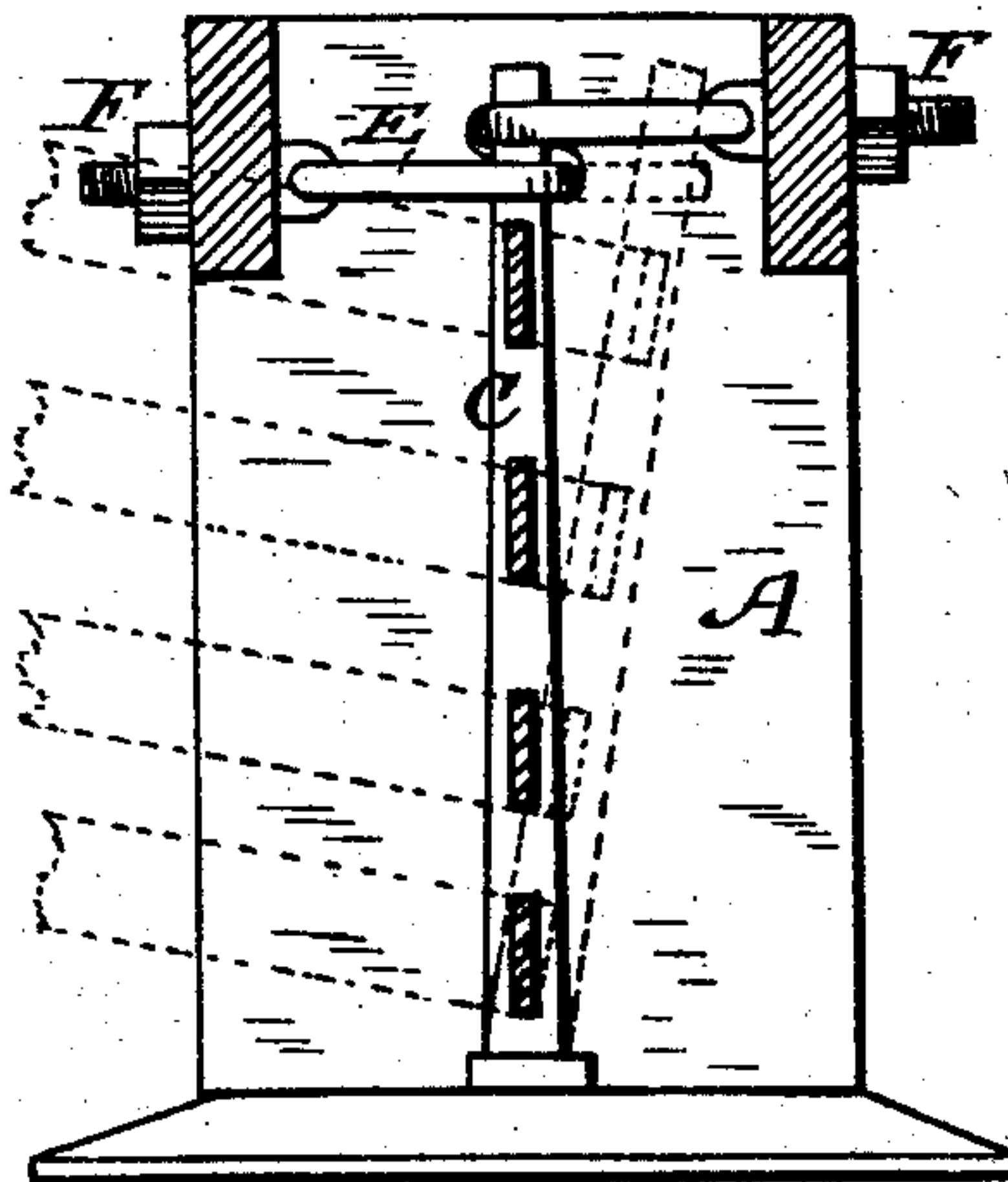


Fig. 4.



Witnesses:

W. B. Masson:

E. B. Stocking

George D. Herring
Inventor

By

Att'y.

UNITED STATES PATENT OFFICE.

GEORGE D. HERRING, OF CHARLES CITY, IOWA.

GATE.

SPECIFICATION forming part of Letters Patent No. 248,040, dated October 11, 1881.

Application filed August 25, 1881. (Model.)

To all whom it may concern:

Be it known that I, GEORGE D. HERRING, a citizen of the United States of America, residing at Charles City, in the county of Floyd and State of Iowa, have invented certain new and useful Improvements in Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a front view of a gate embodying my improvements; Fig. 2, a face view of a portion of the latch-post and the latch-securing devices; Fig. 3, a front view of the pivot-post of the gate and its attachment to the hinge-post, and Fig. 4 a detail.

Like letters refer to like parts in all the figures.

My invention relates to that class of gates known as "swinging" and "self-closing;" and it consists in certain devices and combinations of devices, hereinafter described, and specifically set forth in the claims.

A represents the hinge-post, and in a bracket-step or hinge, B, at its base rests the pivotal upright bar C of the gate. The upper end of the bar C is cylindrical, and is secured within the cap D by means of a strap, rope, or chain, E, which passes once around the cylindrical portion of the bar C, and is secured at its ends in draw-bolts F, as clearly shown in Fig. 3. The strap is firmly secured to the bar C at the point G (see Fig. 4) by entering into a slot in the bar, or it may be there secured by a simple nail, bolt, or screw.

A geared or cogged sector may, if desired, be used on post C, and a rack-bar on post A, as usually done, with which my opening and fastening devices will operate satisfactorily.

At about the longitudinal center of the gate is attached the upright bar H, for the purpose of supporting the opening-lever I and its swivel-pivot J. The bar H is mortised from front to rear and from side to side at that portion which bridges the second and third rails of the gate, for the purpose of receiving the latch-lever K and the connecting-wires L L

thereto attached, and which are also attached to the opening-lever I, as clearly shown. At the ends of opening-lever depend cords for its operation, as hereinafter set forth.

The latch-lever K is pivotally supported by a short bar, M, which bridges the second and third rails of the gate, as shown, and at its inner end is located the spring O, which operates to depress said end of the lever. Projecting from the face of the post N is a rigid pin or bolt, P.

On the face of post Q are secured the locking devices. These consist of the guide R, of usual construction, two pivotal stop-blocks, S S, connected to each other by a curved spring, T.

The operation of the gate is as follows: To open the gate one of the depending cords of the operating-lever I is pulled downwardly, which causes the opposite end of the lever to rise, and through the medium of the wire L the inner end of the latch-lever is also raised and its outer end depressed. This end, being immediately over the central portion of the spring T, depresses it, and causes the stop-blocks S S to assume a horizontal position. This unlocks the gate. The passer, still retaining his control of the lever I, advances, swinging the gate open. The pivot-post C being (when the gate is closed) upright now at its upper end, moves (by winding the strap E about its cylindrical portion) toward the front side of the cap D, as clearly shown in dotted lines, Fig. 3. The swivel-pivot J having permitted continued control of lever I until the gate is completely passed, said lever is now released, and the weight of the now inclined gate expends itself upon that portion of the strap E which is wound about the post C, and as the strap sustains this weight at a point on the post which is at one side of its center of rotation said weight causes the post to rotate, thus closing the gate, which, as it approaches a closed position also approaches its normal upright position, thus gradually lessening the influence of its weight on the strap E, and therefore lessening its momentum as it approaches the post Q.

Now, as to the locking operation: Pin P strikes and rides upon the guide R, and latch-lever K depresses the spring T at one end, (see dotted lines, Fig. 3,) and this movement

of the spring raises stop-block S to a horizontal position, and pin P strikes the other stop-block, and the movement of the gate is checked. The passage of lever K and pin P
5 allowing the raised block to drop, the gate is secured. If the momentum of the gate is sufficient to carry the latch-lever and pin past the center, the inclined face of the opposing stop-block facilitates the complete passage of the
10 gate when, on its return movement, it is caught and secured, as above described, but at the opposite side of post Q. It will be readily seen that as a depression of spring T raises both stop-blocks to a horizontal position the
15 gate can be opened, as described, in either direction.

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

1. The combination of the pivot-post C, having an upper slotted cylindrical portion, with the strap E, bolts F, and cap D, substantially as shown and described. 20

2. The combination of the operating-lever I, swivel-pivot J, wires L L, spring O, and latch-lever K, substantially as shown and described. 25

3. The combination of the guide R, stop-blocks SS, and spring T with pin P and means, substantially as shown and described, for depressing the spring, as and for the purpose set forth. 30

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE D. HERRING.

Witnesses:

W. B. WILLIAMS,
D. D. W. CARVER.