(No Model.)

A. H. MALONE.

GATE.

No. 464,575. Patented Dec. 8, 1891.

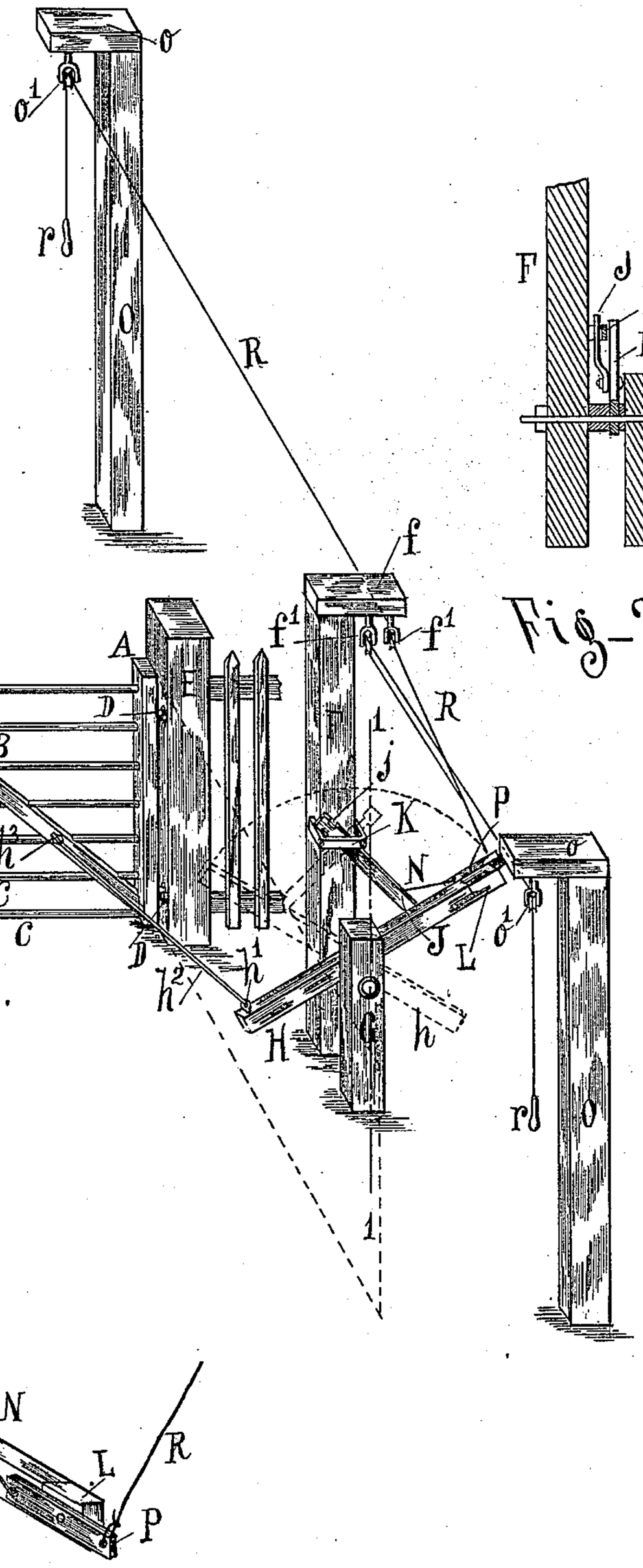

Fig 1.

Fig 2.

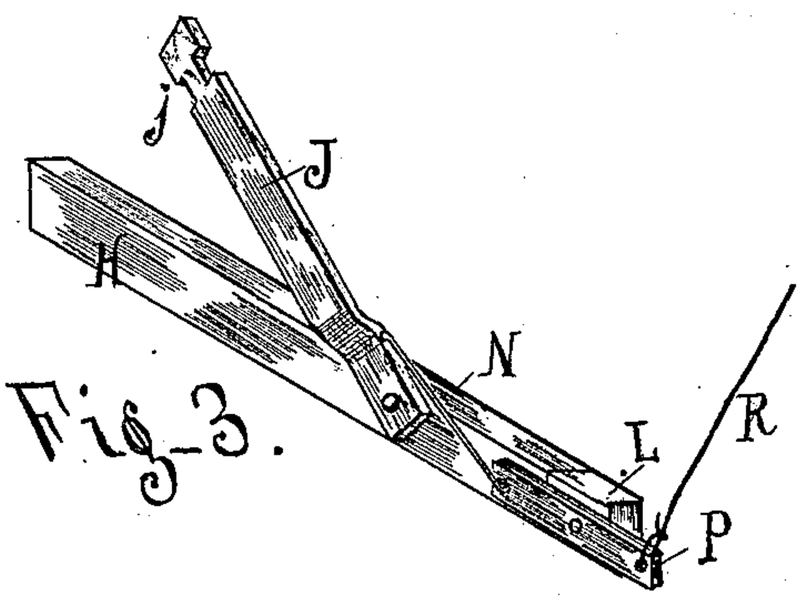

Fig 3.

Witnesses.
Alex. D. DuBois.
Eben Howells.

Inventor.
Albert H. Malone
by N. DuBois his Atty.

UNITED STATES PATENT OFFICE.

ALBERT H. MALONE, OF CHATHAM, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 464,575, dated December 8, 1891.

Application filed June 29, 1891. Serial No. 397,953. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. MALONE, residing at Chatham, in the county of Sangamon and State of Illinois, have invented a new and useful Gate, of which the following is a specification.

My invention relates to gates of that class which are used at the entrance of driveways and which may be operated by a person on horseback or in a vehicle without dismounting from the horse or alighting from the vehicle.

The objects of my invention are, first, to provide a gate of improved construction which shall be rigid and durable and at the same time light and inexpensive; second, to provide simple and effective means whereby the gate may be either opened or closed from either side without alighting or dismounting, and, third, to provide simple and effective mechanism by means of which the gate may be automatically locked and held either in its open or closed position. I attain these objects by the mechanism shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the gate in position and connected with the operating mechanism. Fig. 2 is a vertical transverse section on the line 1, Fig. 1. Fig. 3 is a detached view, on an enlarged scale, of the lever and the latch.

Similar letters indicate similar parts in all the views.

The gate proper consists of three vertical pieces A and a diagonal brace B, all of wood and having transverse holes, which receive horizontal gas-pipes C, suitably secured in the vertical pieces, thereby making a light rigid gate of neat appearance. Hinges D of ordinary construction connect the gate with one of the posts E. At a suitable distance in front and a little to one side of this post E is set the vertical post F, and in front of and parallel to the post F is set another shorter vertical post G. At a suitable distance above the ground a bolt *h* passes transversely through the posts G and F and forms the pivot for lever H. Pivotally connected with the lever H is the latch J, which extends upward through the opening in the staple K on the post F. To the outer end of the lever H is secured a weight L, which serves to hold the latch in position when the gate is locked either open or closed. This weight also counterbalances the gate and aids in moving the gate when the lever H is revolved to open or close the gate, as I will hereinafter describe. Near one end of the lever H is an eyebolt h', which by means of a rod h^2 is connected with a similar eyebolt h^3, secured to the gate. Near the upper end of and on each side of the latch J is a notch *j*, which hooks into the staple K to lock the lever H in position, as shown in Fig. 1. On the inside of and near the outer end of the lever H is pivoted a lever P. To the inner end of the lever P is secured one end of a cord N, the other end of said cord being secured to the latch J. To the outer end of the lever P is secured the middle of another cord R, which extends up over the pulleys f' and o', thence downward alongside the post O within easy reach of the operator, and has at its other end a handle *r*, by means of which the cord may be pulled. The posts O may be set at any convenient distance from the gate. They have at their tops projecting arms *o*, which support the pulleys o', in which the cords R run. The post F also has a projecting arm *f*, which supports the pulleys f'.

The operation of the mechanism is as follows: When the gate is closed, the several parts occupy the positions shown in Fig. 1. To open the gate, grasp the handle *r* and pull downward on the cord R. This will raise the outer end of the short lever P and cause the lever to pull on the cord N so as to raise the latch J, freeing the notched end of the latch from the staple and permitting the latch to move upward through the opening in the staple. Continuing to pull downward on the cord R will raise the weighted end of the longer lever H and turn the lever on its pivot *h* until the weight passes the center, when the weight will fall by gravity on the opposite side of the posts F and G, thereby moving the lever in the arc of a circle, as indicated by dotted lines in Fig. 1. As the lever H turns it pulls on the gate by means of the connecting-rod h^2, so as to open the gate. The position of the gate when open and the revolved position of the lever H and the latch K are clearly indicated by dotted lines in Fig. 1. As the weighted end of the lever H turns toward the center the latch J slides upward

through the staple K. As the weight recedes from the center the latch slides down through the staple until the notch in the latch engages with the staple and locks the lever in position until the latch is again raised. To close the gate, the operation is the same.

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

1. In a gate, the combination of the frame supported by hinges on the gate-post, the revolving weighted lever pivoted on a detached support, the rod connecting the weighted lever with the frame, and the latch pivotally supported on the weighted lever and engaging with a staple secured to said detached support to lock the lever in position, substantially as shown and described, and for the purpose stated.

2. In a gate, the combination of a frame supported by hinges on the gate-post, a revolving weighted lever pivoted on a detached support, a rod connecting said lever with the frame, a staple secured to said detached support, and a short lever and a connected latch, both pivotally supported on the weighted lever, all co-operating substantially as set forth, and for the purpose stated.

3. In a gate, the combination of the frame supported by hinges on the gate-post, the revolving lever pivoted in a detached support, also supporting-pulleys on which runs the cord by which the gate is operated, the weight on the end of the revolving lever, the rod connecting said lever with the gate, the latch pivoted on said lever, the short lever pivotally supported on the weighted lever and connected with the latch, the staple secured to the vertical support and guiding the latch, and the cord secured to the outer end of said short lever and passing over pulleys at the top of said support, substantially as shown and described, and for the purpose stated.

4. In a gate, the combination of a frame supported on hinges secured to the gate-post, detached parallel posts pivotally supporting a weighted lever, a staple on one of said posts with which a latch pivoted on said lever engages, a short lever pivoted on the weighted lever and connected with said latch, a rod connecting the weighted lever with the frame, detached posts on each side of the gate, having laterally-projecting arms, and pulleys supported on said arms carrying cords connected with said short lever, substantially as set forth, and for the purpose stated.

ALBERT H. MALONE.

Witnesses:
PAUL T. GREENWOOD,
JOHN S. NORTHCUTT.