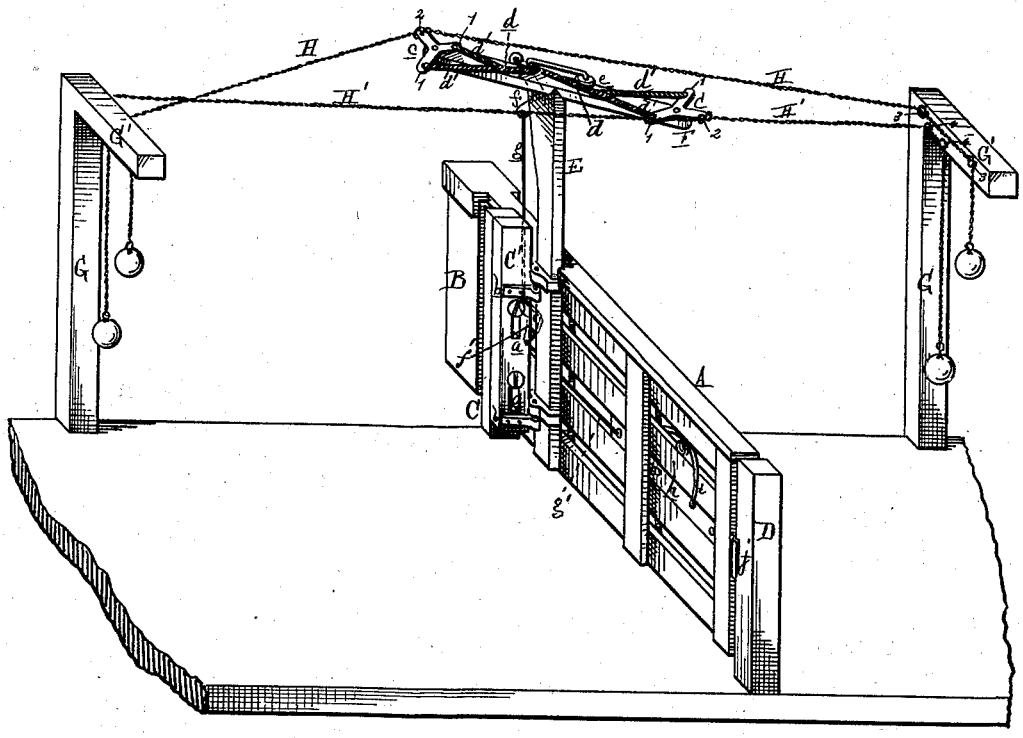
O. P. CLINTON.

Automatic Gate.

No. 165,475 Patented July 13, 1875.

Fig: 1.



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UNITED STATES PATENT OFFICE.

ORSON P. CLINTON, OF MENASHA, WISCONSIN.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **165,475**, dated July 13, 1875; application filed October 2, 1874.

To all whom it may concern:

Be it known that I, ORSON P. CLINTON, of Menasha, in the county of Winnebago and State of Wisconsin, have invented certain Improvements in Carriage-Gates, of which the following is a description:

My invention relates to improvements in the arrangement of a series of pulleys, levers, and chains supported upon posts, whereby a carriage-gate may be readily opened and closed without the necessity of the occupants or driver of a carriage requiring to pass such gate having to alight for the purpose of opening the same, the nature of which will be fully explained by reference to the accompanying drawing, which forms part of this specification.

A represents the gate, which is of the ordinary construction, except that at its rear end it is provided with a box or receiver, B, for the reception of stone or other material to balance the weight of the longer arm of the gate. C is the heel-post affixed at one side of the roadway, and D is the head-post affixed at the opposite side of the road. C′ is a plank affixed to the heel-post C, with capability of adjustment vertically by means of bolts *a*, passing through slots *a′*, secured in the post C. To this plank C is connected one leaf of each of the hinges of the gate A, the other leaf of each hinge being connected to a vertical post or standard, E, affixed to the gate A at about one-third of its length from the heel end. To the upper end of the standard E a cross bar or arm, F, is connected, extending diagonally right and left of the center line of the gate A. At each end the arm F is provided with a Y-shaped lever, *c*, pivoted centrally between its arms 1 1 and 2. To each of the arms 1 1 of the levers *c* one of the ends *d′* of a bifurcated chain, *d*, is attached, the main portion *d* of each of the chains being conducted around a pulley, *e*, turning freely in bearings carried by the arm F, and connected to one end of an L-lever, *f*, pivoted to a bracket or extension from the upper end of the standard E. To the opposite arm of the lever *f* the upper end of a wire, *g*, is attached, the lower end of which is connected to one arm of another L-lever, *f′*, the opposite arm of which is, by means of another wire, *g′*, connected to the rear end of a sliding latch-bolt, *h*, which is kept forward by means of a spring, *i*, so as to engage with a catch, *j*, carried by the head-post. G G are posts or uprights erected on each side of the gate, and at a considerable distance from the same, each of which is provided with an arm or bracket, G′, extending over the roadway. To each of these arms G′ two pairs of pulleys or guides, 3 3 4 4, are affixed, for the purpose of supporting and guiding the chains or ropes H H¹, one end of each of the cords H H being connected to the arm 2 of one of the levers *c*, while the ends of the other pair, H¹ H¹, are connected to the arm 2 of the lever *c* at the opposite end of the cross-bar F. H² H² are weights attached to the opposite end of each of the cords or chains H H¹, as shown in the drawing, which serve both to keep the chains taut, and also as handles for the same.

The operation of my apparatus is as follows: On approaching the gate when closed, the shorter chain is pulled, (which, if approaching from the right, will be the chain H, and if from the left the chain H¹,) thereby first turning the lever *c* on its axis, and, by means of the levers *f f′* and rods *g g′* releasing the bolt *h*. The tension on the cord being continued, the arm F is swung around, and with it the gate A, thereby leaving the road open and free for the passage of vehicles or passengers. After having passed the gateway, and it is desired to close the gate, all that is necessary is to pull the shorter chain of the post G you next approach, when the reverse motion of the lever F will be effected, and the gate closed.

Having thus described my invention, I would have it understood that I lay no claim separately to a weighted or balanced gate, as the same has been previously described in the specification of Letters Patent granted to Samuel P. Williams, dated March 23, 1869, No. 88,249. Nor do I claim the adjustable hinge-plank *c′*, as a similar device is set forth in specification of Letters Patent granted to N. Parker, dated March 21, 1871, No. 112,843. Neither do I claim, broadly, a gate capable of being opened and closed by means of a system of cords and pulleys such as described in the specifications of the rejected application of A. C. Black, filed April 28, 1869, and the patent

granted to E. Easton, dated August 18, 1868, No. 81,077; but

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

The combination, with the cross-bar F upon the upright E of the balanced gate A, of the weighted cords or chains H H^1, the three-armed levers *c*, connected by the bifurcated cords or chains *d d' d d'*, pulleys *e*, and the levers *f f'* and rods *g g'*, for operating the latch *h* and gate A, substantially as shown and described.

ORSON P. CLINTON.

Witnesses:
SILAS BULLARD,
MYRON BATES.