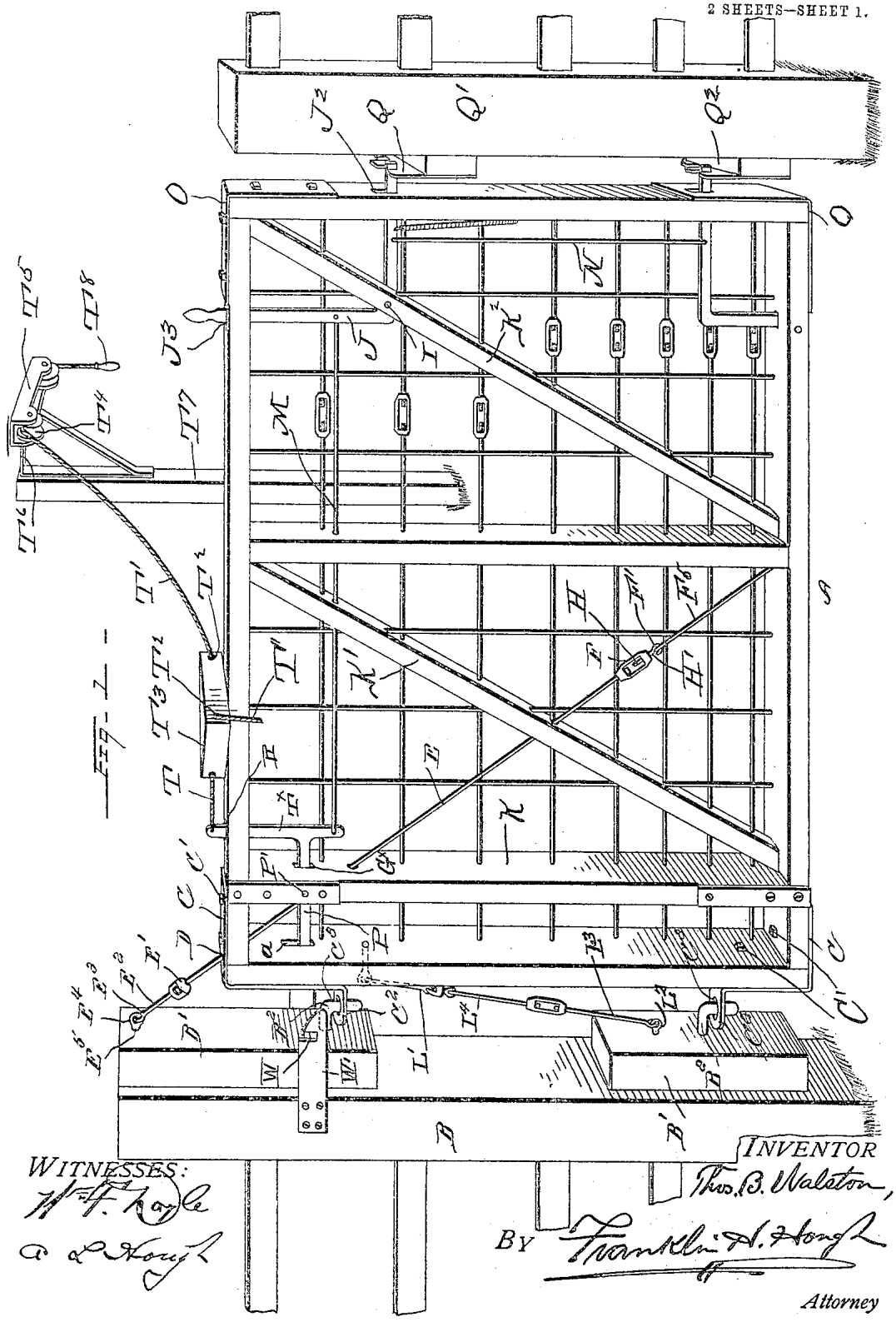
No. 808,324. PATENTED DEC. 26, 1905.

T. B. WALSTON.

SWINGING GATE.

APPLICATION FILED OCT. 5, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

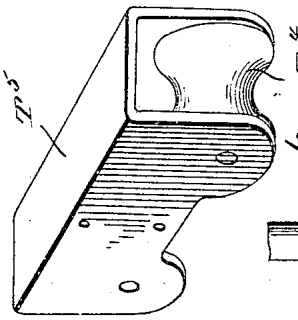


Fig. 5

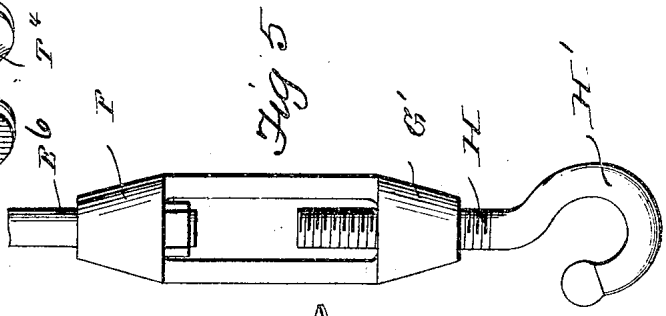


Fig. 3.

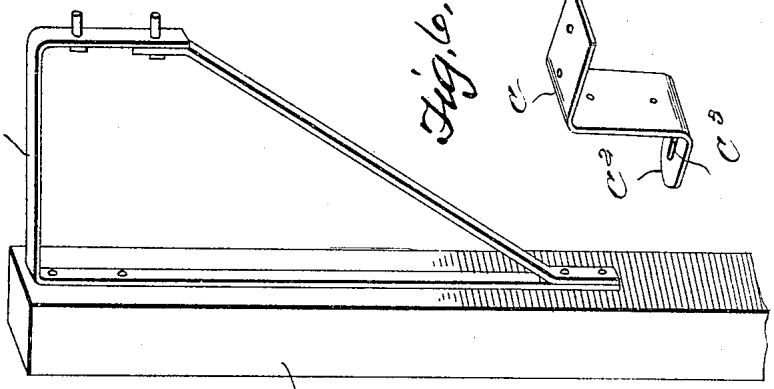
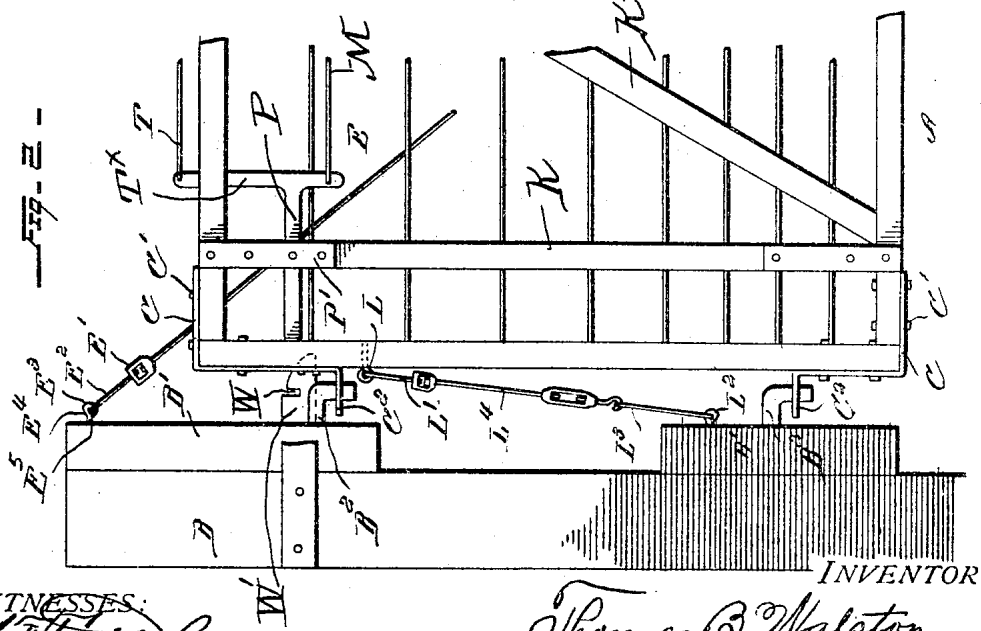


Fig. 6.

Fig. 2.



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UNITED STATES PATENT OFFICE.

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SWINGING GATE.

No. 808,324. Specification of Letters Patent. Patented Dec. 26, 1905.

Application filed October 5, 1905. Serial No. 281,455.

To all whom it may concern:

Be it known that I, THOMAS B. WALSTON, a citizen of the United States, residing at Williamsport, in the county of Pickaway and State of Ohio, have invented certain new and useful Improvements in Swinging 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in gates, and comprises various details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a gate made in accordance with my invention. Fig. 2 is a side elevation of a part of the gate. Fig. 3 is a detail view in perspective of a post and bracket for supporting a housing. Fig. 4 is a detail view of the housing which carries pulleys over which gate-operating ropes pass. Fig. 5 is an enlarged detail view of a turnbuckle, and Fig. 6 is a detail view of an angled hinge-plate.

Reference now being had to the details of the drawings by letter, A designates a gate, which may be of any suitable shape and constructed of wood or metal and has suitable braces K′ to reinforce the frame thereof.

B designates a stationary post having blocks B′ secured to one face thereof, and each of said blocks carries an L-shaped hook or hinge member B^2.

C C designate angled plates, which are fastened by means of bolts C′ or other suitable fastening to the corners at the hinged end of the gate. Said angle-irons, a detail view of one being shown in Fig. 6 of the drawings, are provided with free ends C^2, having elongated apertures C^3 therein to receive the downwardly-bent ends of the hinge members B^2. The upper of said angle-irons C has a slot D therein for the reception of the equilibrium-rod E, the upper end of which is swiveled at E′ to a short rod E^2, which has a loop E^3 at one end engaging an eye E^4, which is formed at the end of a rod E^5, anchored to the upper of the blocks B′. Said rod E at its lower end is connected to a turnbuckle F, which latter is in turn connected to a rod F^5. The lower end G′ of said turnbuckle has a threaded aperture formed therein, through which the threaded shank portion H of the hook H′ passes, said hook H′ adapted to engage an eye F′, formed in the rod F^5, which latter is fastened at its lower end preferably to the lower portion of the gate midway its length. Said rod E passes through an aperture formed in a cross-piece of the gate and also through a diagonally-disposed brace K′ and affords means whereby the gate may be balanced, the tension of the rod being adjusted by means of the turnbuckle mechanism.

The forward or swinging end of the gate has the metallic angle-plates O, which are provided to reinforce the corners, and is provided with two latches J and J′, the former of which comprises an angle-bar pivoted at I to the brace K^2 of the gate and adapted to engage the teeth of a latch-plate Q, fastened to the stationary post Q′. One end of the latch J extends through a slot J^2 of the gate and its upper end through a slot J^3, formed in the longitudinal top strip of the gate. The lower latch J′ is angular and pivotally connected at its lower end in a recess formed in the bottom strip of the gate, and one end of said latch projects through an aperture in an angle-plate O and is adapted to engage a notched plate Q^2, similar to the plate Q before referred to. A cord or rod N connects the two latches, and a cord or bar M is fastened to the upright portion of the latch J and, passing toward the rear of the gate, is connected to a latch P, which is pivotally mounted on a pin P′. Said latch P extends through a slot $G^\times$ in the cross-piece K and also through a slot *a*, formed in the rear hinged end of the gate, and is adapted to engage a notch W, formed in the plate W′, fastened to the post B, when the gate is thrown at right angles to its closed position. An upright portion $T^\times$ of said latch P extends through a slot R, formed in the top strip of the gate, and a cord T is fastened to the end of the upright portion of the latch P, which projects through the slot R, and said cord T branches, forming two strands T′, each of which extends through an aperture T^2, formed in the angle-block T^3, which is fastened to the top strip of the gate. The strands T′ of said rope pass over pulleys T^4, journaled in suitable housings T^5, which are

supported upon the bracket-arms T^6, carried by the posts T^7, and to the end of each strand T′ is fastened a handle T^8, whereby a person may conveniently release the latches and open the gate when approaching the same from either direction.

Fastened to the hinged end of the gate is an eye L, having a rod L′ fastened thereto, and L^2 designates a similar eye fastened to the lower of the blocks B′ and having a rod L^3 fastened thereto, the upper end of which has turnbuckle connections with the rod L^4, which in turn has swiveled connection with a rod L′, thus forming means coöperating with the equilibrium-rod E to hold the gate balanced and in such a manner that it will turn and be guided by the hinge members B^2 and the angle-plates C C.

The operation of my invention will be readily understood, and by the construction shown it will be noted that a simple and efficient means is afforded for balancing the gate, which apparatus is shown in the drawings as made up of rods having swiveled connections, whereby the tension may be adjusted. By the provision of the means shown latches are provided which are simultaneously released from the plates upon the stationary posts before the gate is swung open, the swinging of the gate being through the medium of the same ropes which release the latches. As the gate swings to a position at right angles to its closed position the latch at the rear end of the gate will engage the notch in the plate W′ and hold the gate open, and when the operator pulls upon the rope, one upon either side of the gate, the latch will be released and the gate allowed to close.

By the provision of a gate made in accordance with my invention it will be noted that the entire weight of the gate rests upon the equilibrium-rods, the hinge members merely serving as pivots upon which the gate may swing and the angle-irons at the corners of the gate reinforcing the same and producing a substantial and strong gate.

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

1. In combination with a gate and stationary post, blocks secured to the latter, downwardly-bent angle-hooks fastened to said blocks, apertured angle-plates secured over the corners of the hinged end of the gate, the free ends of said plates engaged by said downwardly-bent hooks, a rod passing through an aperture in one of said angle-plates and through apertures in the cross-piece and diagonal brace of the gate, a second rod anchored at its lower end to the gate and having swiveled connection with the other rod, means for connecting said rod which passes through said angle-plate to one of said blocks, a latch-bar passing through the slot in the rear end of the gate and also through a slot in one of said angle-plates, and a catch secured to said post and adapted to be engaged by said latch as the gate is swung open, and means for opening and closing the gate, as set forth.

2. In combination with a gate and a stationary post, blocks secured to the latter, downwardly-bent angle-hooks fastened to said blocks, apertured angle-plates secured over the corners of the hinged end of the gate, the free ends of said plates engaged by said downwardly-bent hooks, a rod passing through an aperture in one of said angle-plates and through apertures in the cross-piece and diagonal brace of the gate, a second rod anchored at its lower end to the gate and having swiveled connection with the other rod, means for connecting said rod which passes through said angle-plate to one of said blocks, a latch-bar passing through the slot in the rear end of the gate and also through a slot in one of said angle-plates, and a catch secured to said post and adapted to be engaged by said latch as the gate is swung open, a block secured to the top of the gate, a rope secured to said latch and having branches passing through apertures in said block, housings, pulleys mounted therein and over which the branches of said rope pass, and handles upon said branches, as shown and described.

3. In combination with a gate and a stationary post, blocks secured to said post, downwardly-bent hooks secured to said blocks, angle-plates secured over the corners of the swinging end of the gate, corresponding ends of said plates being bent at an angle and apertured to receive said hooks, angle-plates fastened over the free swinging end of the gate, one of said angle-plates at the free swinging end of the gate being slotted, pivotal angle-latches mounted upon the gate, one of said latches extending through a slot in the angle-plate, and means for tilting said latches and opening the gate, as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

THOMAS B. WALSTON.

Witnesses:
C. P. HEISKELL,
J. L. HUNSICKER.