

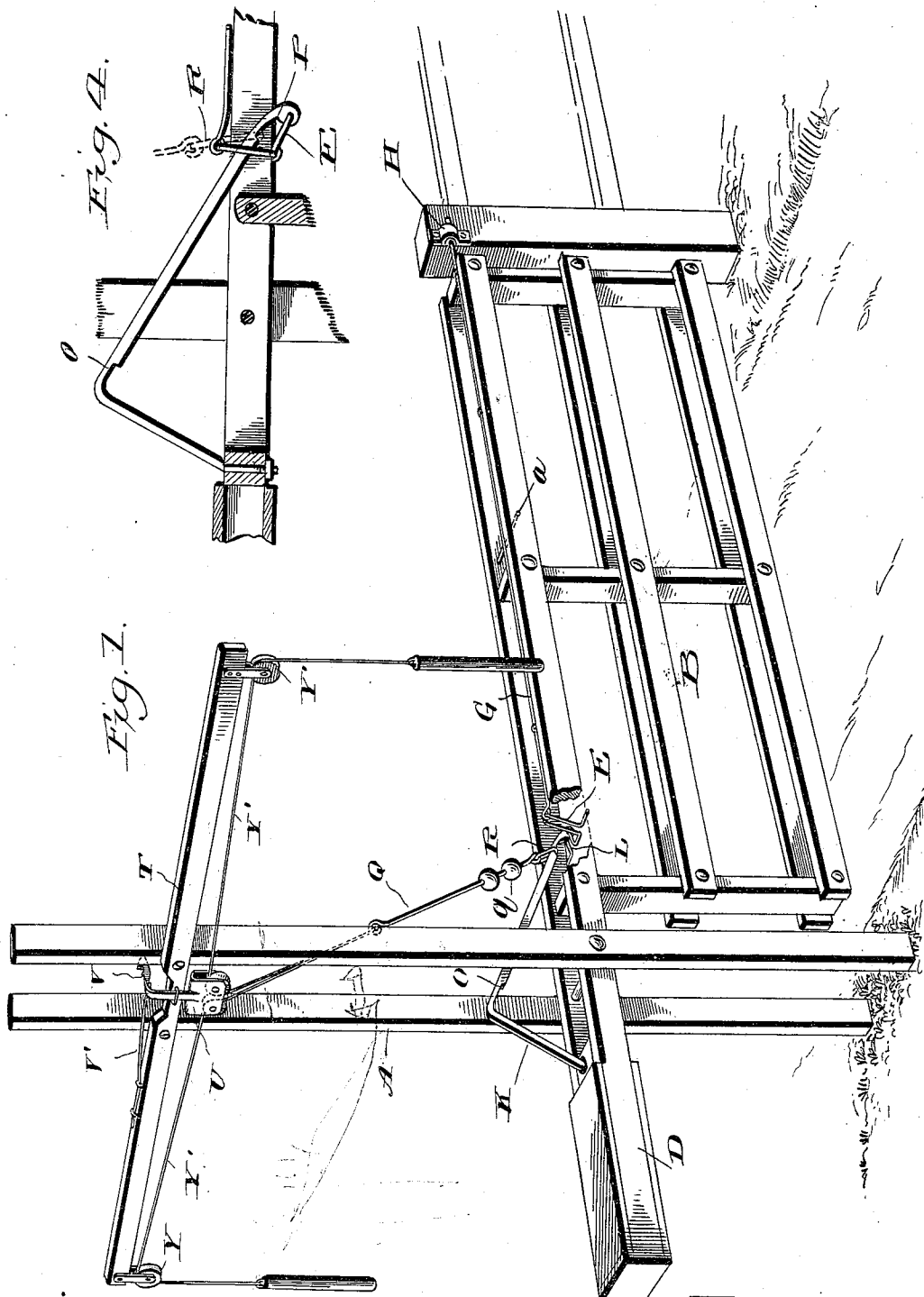
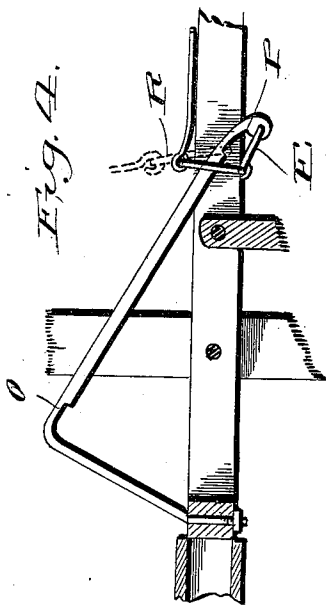
(No Model.)

W. T. FOSTER.
GATE.

2 Sheets—Sheet 1.

No. 566,899.

Patented Sept. 1, 1896.



Witnesses:
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Inventor:
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Att'y

(No Model.)

2 Sheets—Sheet 2.

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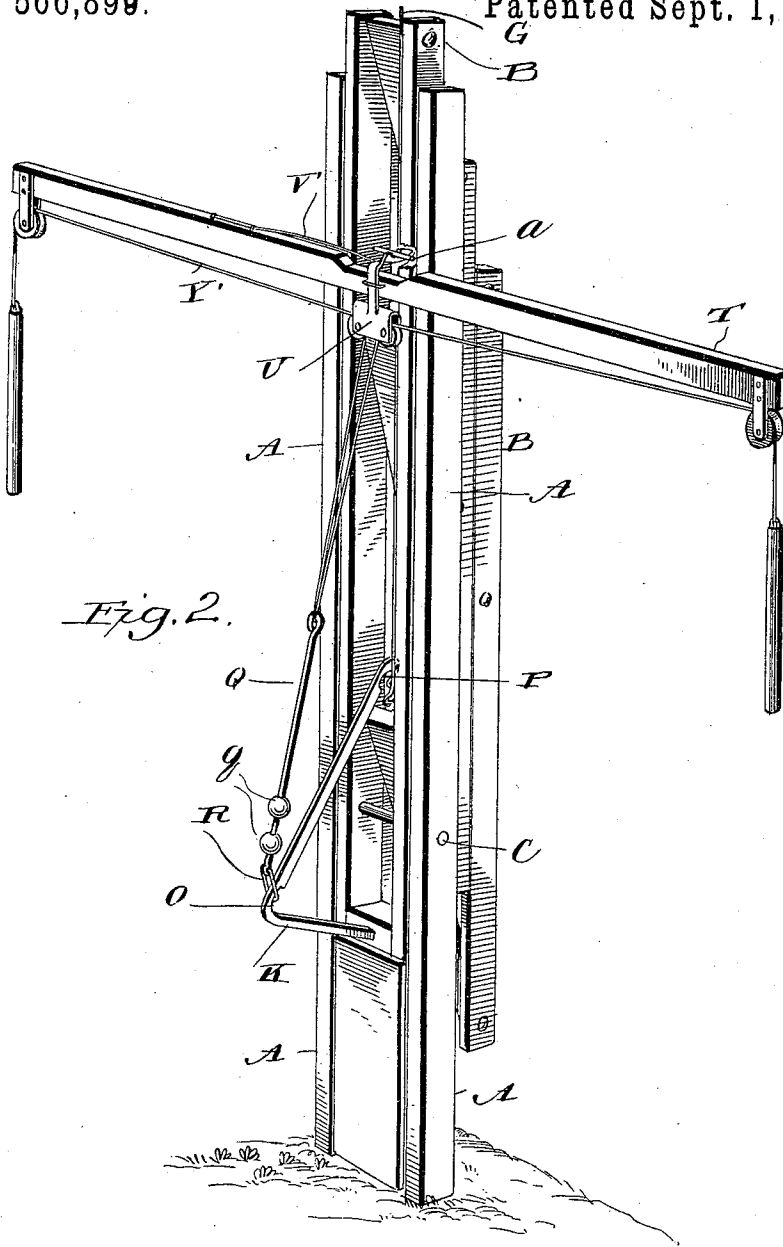


Fig. 2.

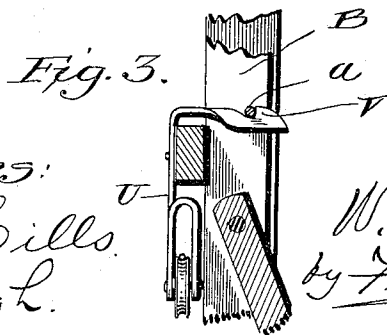


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM T. FOSTER, OF BOZEMAN, MONTANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 566,899, dated September 1, 1896.

Application filed March 5, 1896. Serial No. 581,952. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. FOSTER, a citizen of the United States, residing at Bozeman, in the county of Gallatin and State of Montana, have invented certain new and useful Improvements in Gates; and I do 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 certain new and useful improvements in gates, and especially to an improved form of folding panel gate, which is automatically locked in a folded relation when the gate is raised to a vertical position and allowed to fall by gravity and close when a catch is released from a portion of the gate.

My invention resides in the provision of a folding gate pivoted to a weighted top piece, which is carried between vertical posts, and an angle-bar, provided with notches on its under side, secured to the gate, and designed to be engaged by a link carried on a weighted rod, whereby the gate may be raised, after which the link on the weighted rod will change its position and engage in another notch in the angle-bar.

To these ends, and to such others as the invention may pertain, the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

I clearly illustrate my invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of the gate in a horizontal position. Fig. 2 is a perspective view of the gate in a vertical folded position. Fig. 3 is a detail view of the locking-catch which holds the gate folded. Fig. 4 is a detail view of the angle-bar and its attachments.

Reference now being had to the details of the drawings by letter, A designates two up-

right posts between which is hung the folding gate B on the rod C. The gate has its upper strips extended, and a weighted end D causes the gate nearly to balance on its pivot. Pivoted between the two upper strips of the gate is the double crank E, and to one of the crank portions is attached an end of the locking-rod G, which is adapted to work in eyes attached to the top strip and its free end to register in an eye H on the gate-post when the gate is in a horizontal position. An angle-bar K, which is made of spring metal, has one end secured to a portion of the gate behind its pivoted point, and its other end is secured to the crank portion L of the double crank and is designed to hold the crank in the position shown in Fig. 1, under the tension of the spring-bar, which holds the end of the rod G in the eye H, as will be seen. There are two notches O and P on the under side of the said angle-bar, and Q is a rod carrying a link R at its lower end and the weights *q*. T is a cross-piece secured to the upright posts A, and U is a pulley-block having secured thereto an angled catch V, which is supported on the said cross-bar by means of the spring V' and is guided by the staple *v*. At the outer ends of the said cross-piece are carried the pulleys Y. Y' are ropes which pass over the said pulleys, each being secured to a handle at one end and attached at its other end to the eye at the upper end of the rod Q.

To open the gate, the operator pulls down on the handle connected to the end of the rope Y'. The link carried at the end of the weighted rod Q, engaging in a notch P, causes the gate to fold into an upright position, and when the gate is raised the weighted end of the rod falls by gravity and carrying with it the link, which rests in the notch O. To shut the gate, the operator has merely to pull again on the handle, and the gate is lowered by the link pulling in the notch O, and after the gate is shut the weighted end of the rod carrying the link will again return to its first position. As the operator begins to pull down the handle the end of the spring angle-bar yields slightly, enough to cause the rod G to be released from the eye H on the post, and as the gate rises it folds, as shown in Fig. 2, and the pin *a* strikes the beveled

portion of the catch V, which latter is spring-actuated and is caused to be slightly depressed, allowing the pin to be seated in the notch in the catch, thus locking the gate in its folded relation. When the gate rises to an upright position, the weight of the rod Q causes the link carried thereby to fall, so that the link will engage in the notch O. When it is desired to allow the gate to fall or swing closed, the operator merely has to pull on the handle, as before, in causing the gate to be raised, and the weight on the pulleys in block U will cause the latch to be released from the pin *a*, but the link R will give the gate a momentum sufficient to swing it closed across the roadway, and the weighted rod Q, carrying the link, will drop, so that the link will be ready to raise the gate when it is desired.

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

1. A folding gate consisting of the upright posts between which the said gate is pivoted, a weighted member or portion of said gate adapted to balance the gate, combined with a spring angle-bar mounted on the gate, a gravity-operated link adapted to engage in a notch at the lower end of the said spring-bar, to open or raise the gate, and to engage in a notch at the angle of the bar, when it is desired to close the gate, substantially as shown and described.

2. A folding gate consisting of the two upright posts the folding gate pivoted to strips which are pivoted between the said posts, one of them having a weighted end, whereby the gate is balanced, a double crank mounted between the upper strips of the gate, the spring-bar K, having one end secured to the gate, its other end fastened to one of the crank portions of the double crank, a locking-rod

secured to the other crank portion, and a gravity-link adapted to engage in notches in the said angle-bar, whereby, when the gravity-link is raised, the gate is unlocked and raised to a vertical position, substantially as shown and described.

3. A folding gate, having in combination with the upright posts the folding balanced gate pivoted thereto, a spring angle-lever notched near its angle and at its lower end, a double crank pivoted to the upper strips of the gate, to one crank portion of which is secured the spring-actuated end of the angle-bar, the locking-rod secured to the other crank portion, the link secured at the lower end of the weighted rod Q, the spring-latch secured to a pulley-block, a cross-piece carrying pulleys at its outer ends, ropes connecting the said rod Q with suitable operating-handles, and a pin on the gate adapted to engage with the said spring-latch, substantially as shown and described.

4. In a mechanism for opening and shutting a gate, the combination of the angle-bar attached at one end to the gate, its free end secured to a crank, which causes a gate-latch to be released as the free end of the angle-lever is raised, of the pulley-block having an angled latch secured thereto which is mounted on a spring, a weighted rod Q carrying a link at its lower end, ropes connecting said rod with handles, which cause the spring-actuated pulley-block to be depressed, simultaneously with tilting of the gate, substantially as shown and described.

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

WILLIAM T. FOSTER.

Witnesses:

GEO. B. EDDY,
A. R. WILLIAMS.