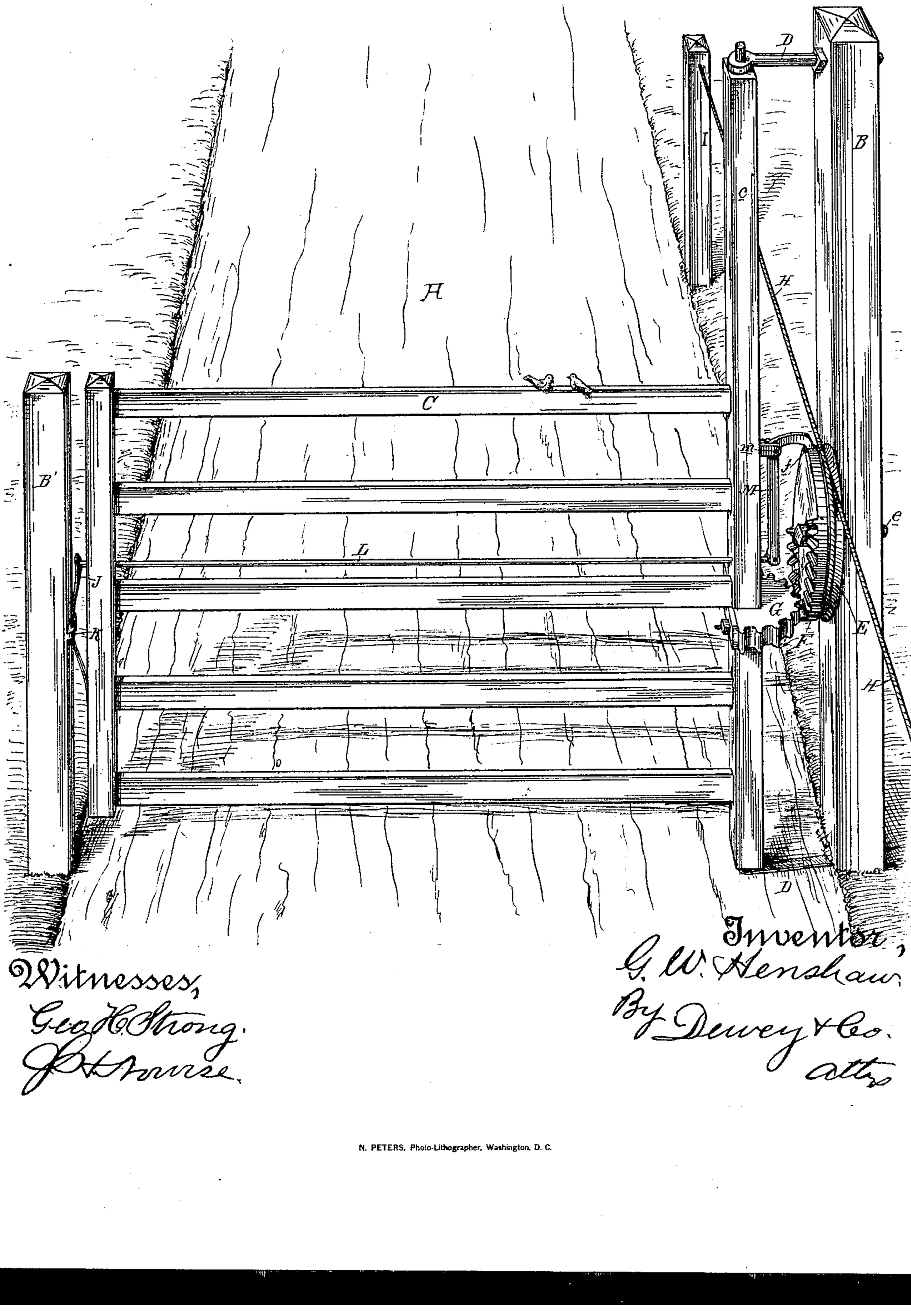
(No Model.)

G. W. HENSHAW.

GATE.

No. 368,287. Patented Aug. 16, 1887.



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UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON HENSHAW, OF GRIDLEY, CALIFORNIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 368,287, dated August 16, 1887.

Application filed March 14, 1887. Serial No. 230,902. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON HENSHAW, of Gridley, Butte county, State of California, have invented an Improvement in Gates; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of gates which are adapted to be operated by the passing traveler without putting him to the necessity of alighting from his conveyance; and my invention consists in the novel arrangement and combination of parts hereinafter described.

The object of my invention is to provide a simple, practical, and effective gate of this character.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a perspective view of my gate.

A is the roadway, and B B′ are the gate-posts, to one of which the gate is hinged, and to the other of which it is latched.

C is the gate, having its pintle-post *c* pivoted in the eyes of bolts D, passing through the gate-post B. Pivoted upon a bolt, *e*, passing horizontally through the gate-post B at a point about midway of the height of the gate, is a grooved-faced pulley, E, having on its side a mutilated gear, F, which meshes with a segmental gear, G, on the pintle-post *c* of the gate. Secured to the grooved face of pulley E, and passing in opposite directions, are the ropes or cords H, which extend up and down the roadway to any suitable distance and are guided and supported by posts I, from which the ends of the ropes depend.

J is the gate-latch, consisting of an outwardly-springing piece or strip which is adapted to engage with a notched catch, K, on the gate-post B′. To this latch is secured a sliding rod, L, which passes longitudinally across the gate and has its other end attached to the lower arm of a bell-crank lever, M, pivoted at *m* to a bearing secured in the pintle-post of the gate and having its other or horizontal arm extending over the rim of the mutilated gear on the pulley E. In this gear is a notch, *f*, into which the horizontal arm of the bell-crank lever M drops, thereby allowing the latch J at the other end of the gate to spring into its engagement with the catch K on the other post.

The operation of the gate is as follows: A traveler approaching and finding the gate shut drives up to the post I, and, seizing the cord or rope H, pulls upon it, thereby turning the grooved-faced pulley E and its attached gear F. The first effect of this is to lift the upper arm of the bell-crank lever M from its engagement with the notch *f* in the gear, whereby the lower arm of said lever is moved, pulling the sliding rod L and drawing in the outwardly-springing latch J, thereby freeing it from its engagement with the catch K on the gate-post. Continued movement of the pulley now causes the gate to swing open by reason of the engagement of the gear F with the segmental gear G. After the traveler has passed through, he grasps and pulls upon the rope H on the other side, thereby swinging the gate to a closed position.

The arrangement here shown of the operating-lever is preferable to an arrangement on top of the posts in which the gears would have to lie in a horizontal plane. Besides having my gears out of the way and less liable to injury, they strain the gate less, because of acting on it about the middle of its height, and they also avoid strain on the gate-post. The perpendicular arrangement of the main pulley E is also better than a horizontal arrangement, as the ropes proceed direct to their supporting-posts, and the strain is therefore a straight one; but this arrangement is further useful in providing for the simultaneous operation of the latch in the simplest manner—namely, by the employment of the bell-crank lever, which readily effects its engagement and disengagement with the notch in the gear F. Instead of a notch, *f*, in the rim of the gear, I may use a double-inclined plane or projecting lug for effecting the same purpose—namely, that of moving the bell-crank lever.

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

1. The gate-posts B B′, the gate C, hinged to the post B, and the outwardly-springing latch J on the end of the gate, engaging the

notched catch on the gate-post B′, in combination with the means for swinging the gate and releasing the latch, consisting of the groove-faced pulley E on the gate-post B, the gear F on the grooved-faced pulley, having a notch, *f*, in its rim, the gear G on the gate, the pivoted bell-crank lever M on the gate, having one arm engaging the notch in the rim of the gear F, the slide-rod L, connecting the other arm of the bell-crank lever with the outwardly-springing latch of the gate, and the oppositely-extending ropes or cords H, attached to the grooved-faced pulley, all arranged and adapted to operate substantially as herein described.

2. The gate-posts B B′, the gate C, having a pintle-post, *c*, hinged to post B, and the outwardly-springing latch J, in combination with the perpendicular pulley E, pivoted to the inner side of post B, the mutilated gear F on the inner side of the pulley, having a notch, *f*, in the upper portion of its rim, the segmental gear G on the pintle-post of the gate, engaging the gear F, the pivoted bell-crank lever M on the gate, having one arm engaging the notch in the gear F, the slide-rod L, connecting the other arm of the bell-crank lever with the latch J, and the ropes or cords H, secured to pulley E, all substantially as herein described.

In witness whereof I have hereunto set my hand.

GEORGE WASHINGTON HENSHAW.

Witnesses:
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