

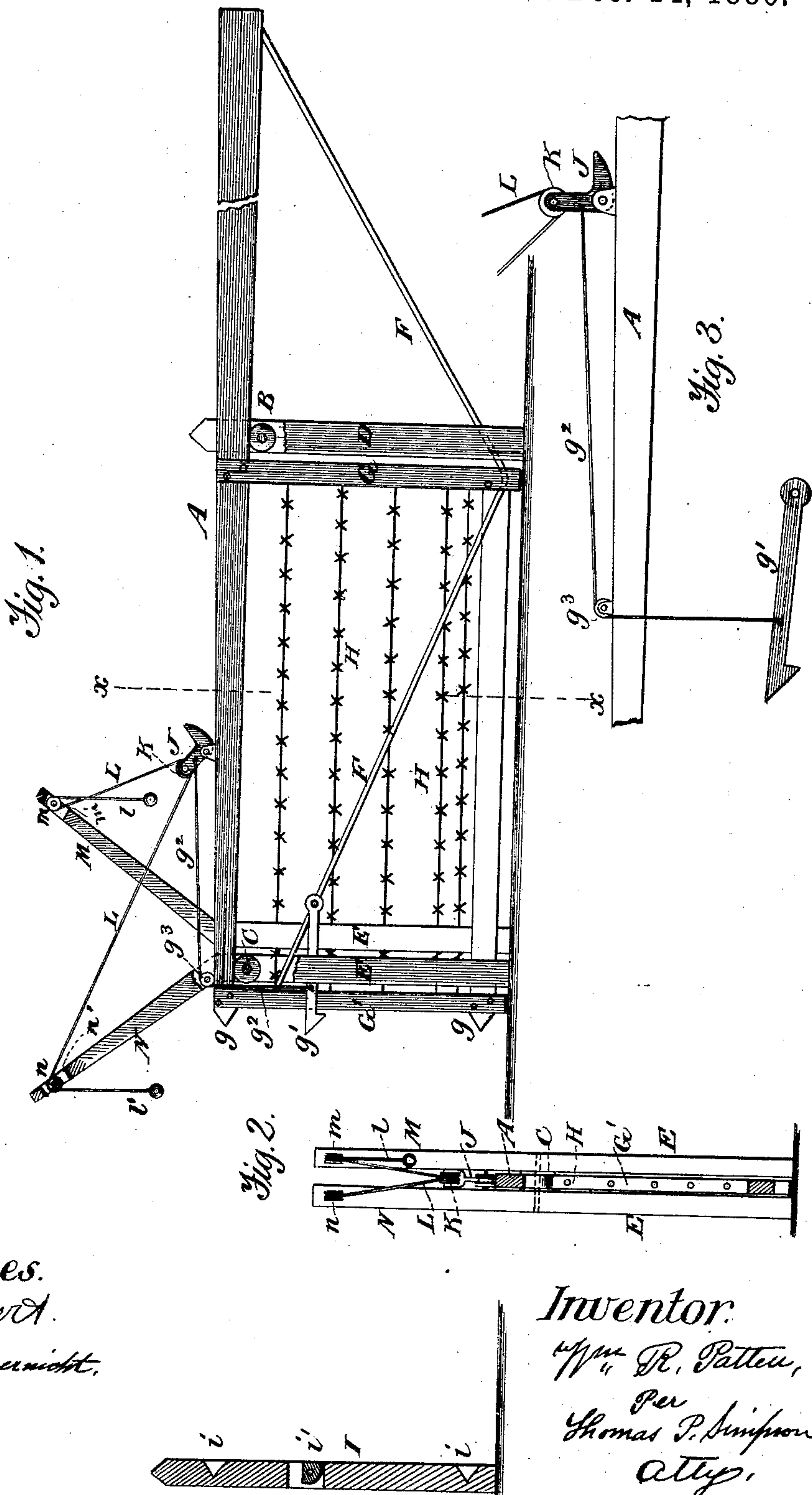
(No Model.)

W. R. PATTEN.

SLIDING GATE.

No. 354,210.

Patented Dec. 14, 1886.



Witnesses.
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UNITED STATES PATENT OFFICE.

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SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 354,210, dated December 14, 1886.

Application filed April 19, 1886. Serial No. 199,410. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. PATTEN, a citizen of the United States, residing at Elmsdale, in the county of Chase and State of Kansas, have invented certain new and useful Improvements in Sliding Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

The invention has special reference to wire-rail gates.

Figure 1 of the drawings is a side elevation showing the gate latched. Fig. 2 is a vertical cross-section on line *x x* of Fig. 1, and Fig. 3 is an enlarged view of the mechanism for lifting the latch.

In the drawings, A represents the long top-rail, which rides upon the wheels or rollers B C, arranged between and made fast to the posts D D and E E. The rail A is connected by a diagonal rod, F, extending from its free end to the bottom of the rear upright, G, of the gate. The rod F is then turned at an obtuse angle and carried up diagonally across the gate to its front upright, G'. Being made fast to the parts A G G', and the two diagonal rods of metal being integral, I form a strong rigid brace, which keeps the parts of gate firmly together, prevents the uprights G G' from spreading apart, prevents the wire rails H from sagging and becoming loose, and causes the gate to work without need of repair for a long time.

I is the fixed front abutting gate-post provided with the apertures *i i*, which receive the projections *g g* on the front of the gate-upright G'—one near the top and the other near the bottom.

i' is a catch arranged in the post I so as to receive the pivoted latch *g'*. Thus it will be seen from Fig. 1 of the drawings that the catch *i'* prevents the gate from running back under any force likely to be applied to it, while the holes *i i* and projections *g g* prevent the gate from being lifted so as to unlatch it, and also prevent the gate from sagging down by the weight in front.

The latch *g'* is attached by a wire or other flexible connection, *g²*, passing over a friction-roll, *g³*, to the farther end of a lever, J, which is made in angular form and pivoted at the vertex of its angle to the top of rail A. On the other end of this lever is a bifurcation in which is journaled a pulley, K, whose weight causes it to rest upon the rail A. Around this pulley passes the pull-cord L, of which one end passes over a pulley, *m*, in an opening of the arm M, and the other over a pulley, *n*, in an opening of the arm N, which stands in a reverse direction from the arm M. These arms M-N are rigidly attached to the fixed posts E E. The pull-cord L has a ball or hand-piece, *l*, at one end, and one, *l'*, at the other. By pulling on the ball *l* the ball *l'* is pulled up to the aperture *n'*, the pulley K is lifted, the latch *g'* raised, and the gate shoved back. Thus it will be seen that the latch is lifted just before any back pull upon the gate is obtained.

I am aware that a gate-latch has been combined with a pivoted rod, a short lever carrying a pulley on one end and pivoted at the other on the top of an upright bar, and a hand rope running over a pulley on an upright bar; also, that a roller-gate has been provided with an endless chain or rope and a series of pulleys so arranged that the movement of said chain or rope in one direction will open the gate, while when moved in an opposite direction the gate will be closed; also, that a pivoted latch on top of the outer end of a gate has been combined with a bent lever operated by a cord; but none of these embody the same idea as my invention.

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

The combination, with a sliding gate, of the superposed rigid arms M N, carrying pulleys *m n* in apertures *m' n'*, the pull-cord L, passing over pulleys *m n*, the elbow-lever J, fulcrumed at its vertex on the rail A, and carrying the pulley K, the pulley *g³*, the flexible connection *g²*, and the pivoted latch *g'*, substantially as shown and described.

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

WILLIAM R. PATTEN.

Witnesses:

W. M. HARRIS,
JOHN DRUMMOND.