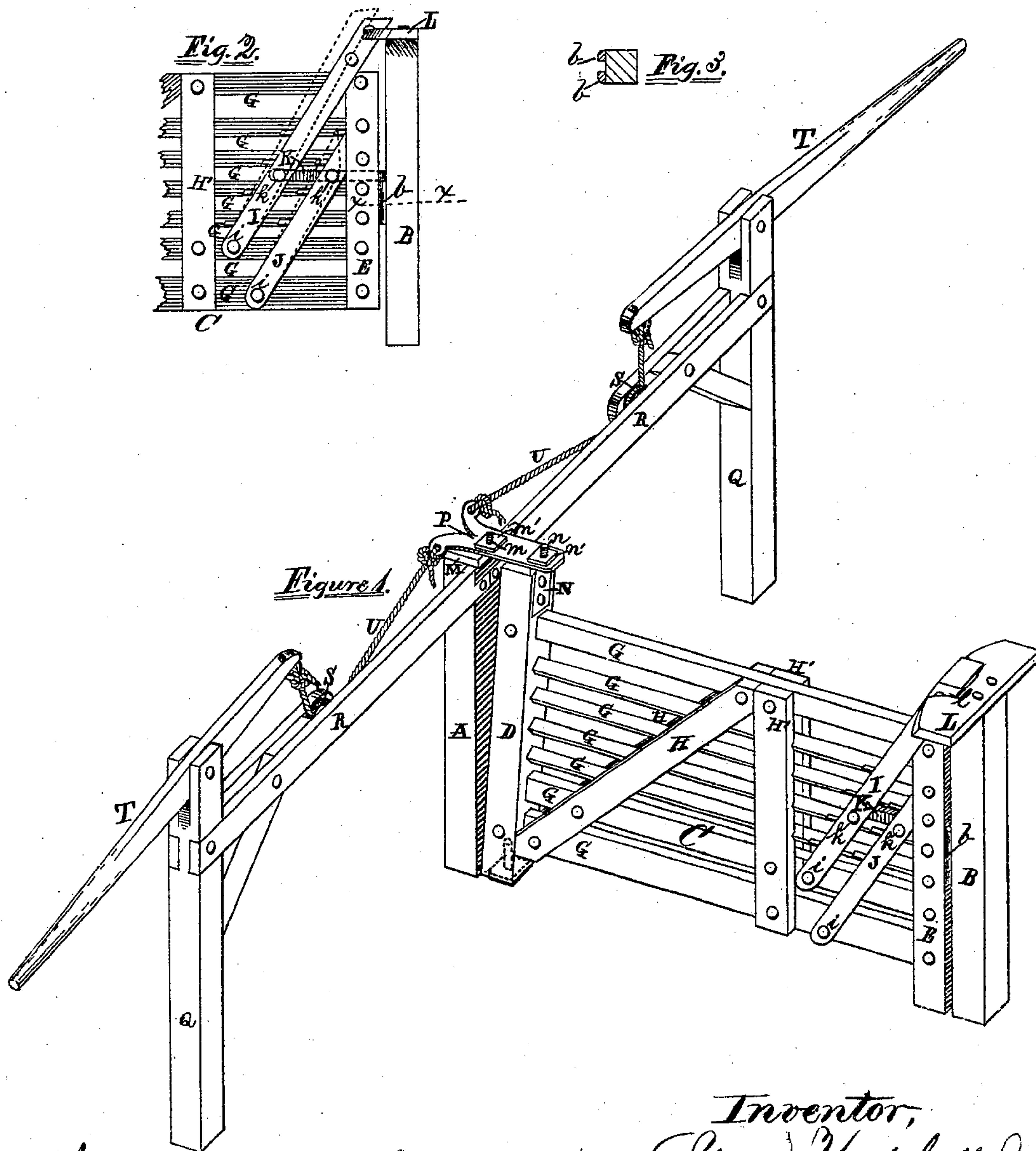


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Improvement in Swinging-Gates.

No. 132,530.

Patented Oct. 29, 1872.



Witnesses:
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UNITED STATES PATENT OFFICE.

LIVY HATCHITT, JR., OF LOUISIANA, MISSOURI.

IMPROVEMENT IN SWINGING GATES.

Specification forming part of Letters Patent No. 132,530, dated October 29, 1872.

To all whom it may concern: -

Be it known that I, LIVY HATCHITT, Jr., of Louisiana, county of Pike and State of Missouri, have invented certain Improvements in Farm-Gates, of which the following is a specification:

The nature of my invention relates to improvements in that class of gates known as swinging gates, in which the gate is made to open and close by its own gravity by changing the relative position vertically of the hinges; and the invention consists in the construction of the gate to facilitate its operation, and in the construction and arrangement of the latch to operate automatically with the operations of the gate, all as hereinafter fully described.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of my invention; Fig. 2 is a detached view of the latch-post and a portion of the adjacent end of the gate in elevation; and Fig. 3 is a cross-section of the latch-post on the line *x x* of Fig. 2.

General Description.

A is the hinge-post, and B is the latch-post. C is the gate, constructed as hereinafter described. D is the vertical side rail of the gate next the hinge-post, and E is the vertical side rail next the latch-post. G G G are the horizontal gate-rails, and H H' H' are braces or stays. The top of the gate is made a little shorter than the bottom by inclining the side rail D, as shown at Fig. 1. The latch is formed of two bars, I J, pivoted at their lower ends, at *i i*, to the lower horizontal rails G G, and placed diagonally with the gate, the upper end of the bar I projecting, as shown plainly by the drawing, and of a horizontal bar, K, pivoted at *k k* to the bars I and J, and its end projecting through the side rail E, as shown at Fig. 2 by dotted lines. The upper end of the latch-bar I engages with a notch, *l*, in the plate L on the top of the post B, and the latch K engages with or rests between the short ledges *b b* on the post B. The ends of the plate L are beveled, as shown, so that they may elevate the bar I, and with it draw back the latch K in closing the gate, one of said latches forming a supporting-brace for the gate when closed. M is a plate, secured to the top

of the hinge-post A and provided with a vertical journal, *m*, and tap *m'*. N is a plate, secured to the top of the side rail D and provided with a vertically-projecting journal, *n*, with a tap, *n'*. P is a lever, pivoted near its central portion on the journal *m*, as a fulcrum, and pierced with a hole which receives the journal *n*. Q Q are posts, a short distance from and on each side of the gate C, with arms R R extending to the post A. S S are pulleys, with axial bearings in the arms R R. T T are levers, pivoted near their central portions to the top of the posts Q Q. U U are cords, extending from the inner ends of the levers T T under the pulleys S S, and to the outer end of the lever P, to which they are attached.

The operation of my invention is as follows: By pressing down the outer end of either lever T its cord U will draw the outer end of the lever P toward it, and of course throw the inner end of the lever P, and with it the top of the side rail D, in the opposite direction, and, continuing the pressure, will draw back the side rail D, thereby elevating the front end of the gate and lifting the latches I and K from their seats, cause the gate to swing toward the side to which the rail D was inclined.

Now, by pressing on the other lever T, the top of the side rail D will be thrown back and the gate swung to, the latch I, being elevated by the beveled end of the plate L, will carry back the latch K with it, and both will drop into their respective catches by the gravity of the latch I, and when closed the latch forms a supporting-brace, which prevents the gate from sagging. The posts Q Q are placed a sufficient distance from the gate C so that the levers T T may be operated by a person on horseback or in a vehicle.

Claim.

In combination with the gate C, operating as described, the latches I and K, when arranged to operate with post B and plate L, substantially as and for the purpose specified.

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