

# UNITED STATES PATENT OFFICE.

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## GRAVITY-LATCH.

SPECIFICATION forming part of Letters Patent No. 355,645, dated January 4, 1887.

Application filed June 17, 1886. Serial No. 205,442. (No model.)

*To all whom it may concern:*

Be it known that we, ANDREW S. EWING and JOHN H. HEITMANN, citizens of the United States, residing at Lewisburg, in the county of Marshall and State of Tennessee, have invented new and useful Improvements in Gravity-Latches, of which the following is a specification.

Our invention relates to an improved latch or fastening for gates, doors, &c.; and it consists in certain peculiarities of construction and in the combination of parts, as will be hereinafter particularly described, and definitely pointed out in the claim at the end of this specification.

The invention is illustrated in the annexed drawings, in which—

Figure 1 is a perspective view of a gate and latch-post with our invention applied. Fig. 2 is a view of the gravity or pendulum latch detached. Fig. 3 is a view of a latch-bracket. Fig. 4 is a view of an angular guard or wear plate attached to the latch-stile of the gate.

Referring to the drawings, the numeral 1 designates the latch-post of a gate, and 2 a bracket secured to one side of said post in a parallel line with the closed gate. The ends of this bracket are so bent or otherwise formed that when secured to the post 1, as shown, a space of one-half inch (more or less) will be afforded between the bracket and post to receive the vibratory gravity-latch 3, which is pivoted or fulcrumed on a pin, screw, or stud, 4, within the bracket.

The latch 3 is preferably made of cast metal and in the form shown in Fig. 2, being wider at bottom than at top to give it the necessary strength and weight to insure durability and make it hang in a perpendicular position, with one lower edge projecting beyond the edge of its supporting-post.

On the front face of the latch 3, integral therewith and extending transversely across its broad lower end, is located a curved bar, 5, which forms, with the body of the latch, a loop 6, that surrounds the bracket 2, and serves therewith as a stop or guard to limit the vibrations of the latch and obviate any liability of displacement. It will be understood, however, that the bar 5 projects suffi-

ciently beyond the face of the latch to avoid binding on the bracket or any interference with the free vibration of said latch. The ends of the integral bar 5 are curved, sloped, or beveled at an angle of forty-five degrees, (more or less,) as shown, and the latch 3 is suspended by means of an eye, 7, in its upper narrow end engaging the stud 4 in such a manner that one corner or edge of its lower broad end will project beyond the edge or corner of the post 1 far enough to reach and lap onto the gate 8 sufficiently to hold it in place when closed.

It is obvious that the latch can be arranged or suspended in such a manner as to fasten a gate that opens to either the right or the left.

In closing the gate its latch stile 9 comes in contact with the adjacent beveled, sloped, or curved end of the latch-bar 5, and in riding over the same gradually forces the latch back. As soon as the gate is closed, however, the latch 3 immediately resumes its perpendicular position, with one edge lapping the stile 9, and so holds the gate in a closed position. For the purpose of preventing wear of the latch-stile 9 an angular plate or guard, 10, is secured thereto at the point where it comes in frictional contact with the latch.

On either or both edges of the latch 3, near its lower end, may be located eyes 11, for attachment of a rod or wire, 12, that can be extended up through a staple, 13, on the latch-post and project above said post for convenience in operating the latch when applied to drive-gates. By raising this rod or wire the latch 3 will be vibrated backward, so the gate can be opened; and said rod or wire also serves to weight the back edge of the latch in excess of its front edge, so as to cause the latch to fall back quickly after the gate has passed.

It is obvious that by suspending the latch from the latch-post its operation will not be impaired or rendered ineffective by sagging of the gate. If the gate is so hung or balanced as to always close of itself, the latch will fasten it securely, so that it cannot be opened by any kind of stock.

This automatic latch is durable, effective, and inexpensive, can be conveniently applied to either lawn or drive gates, and, having no

(No Model.)

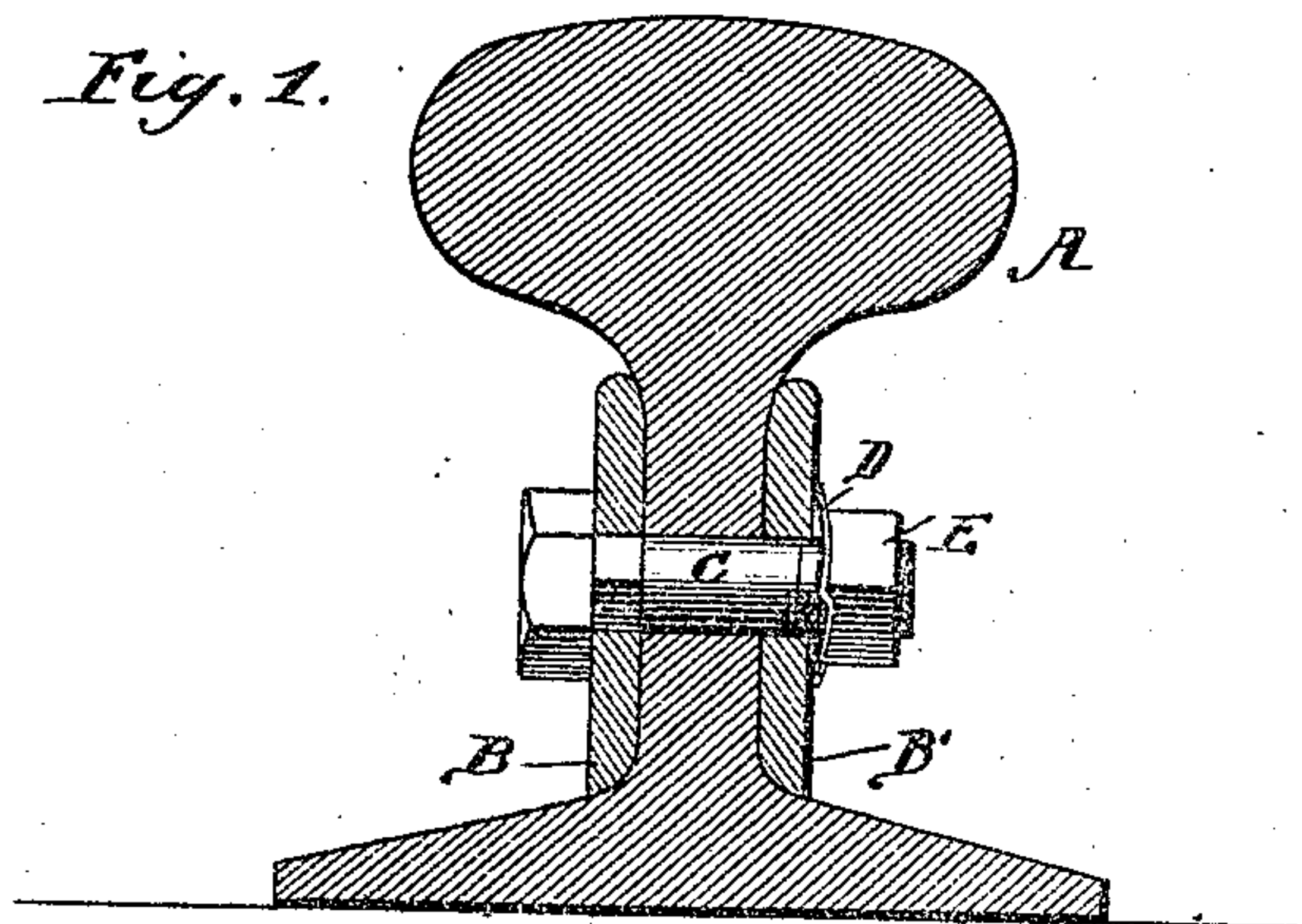
R. W. GATES.

NUT LOCK.

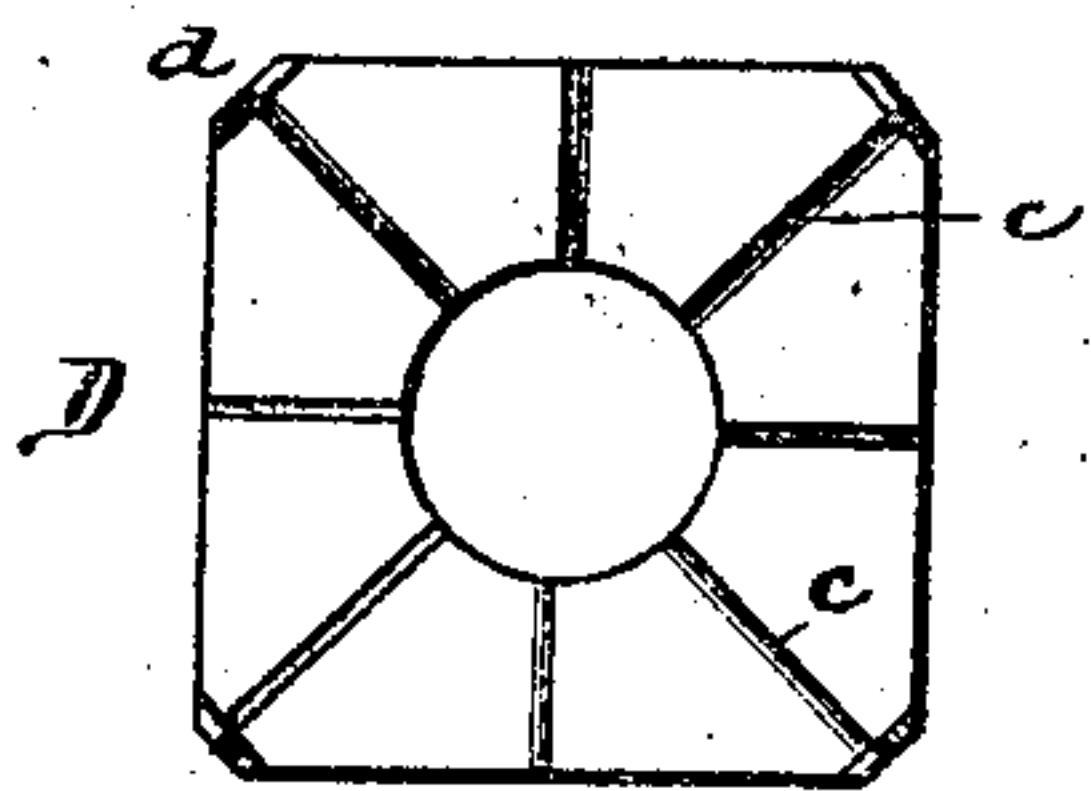
No. 355,646.

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*Fig. 1.*



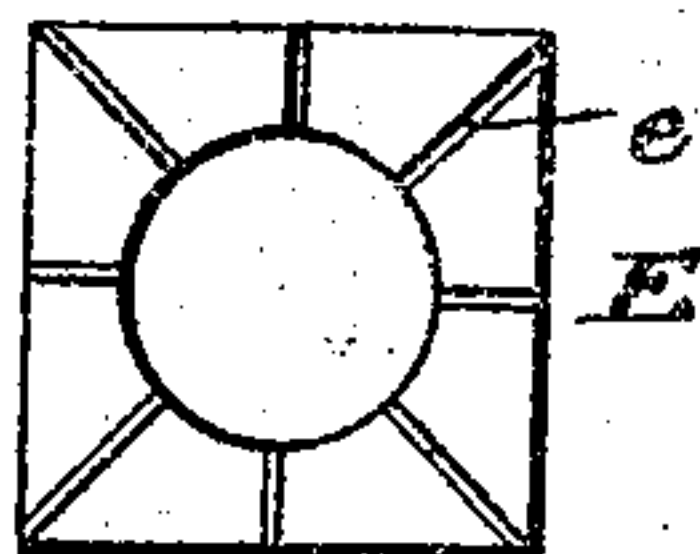
*Fig. 2.*



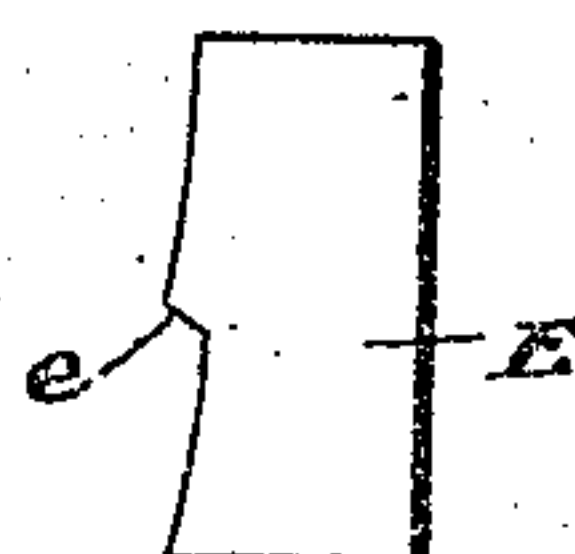
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses.

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