(No Model.)

F. RUGE.

GATE LATCH.

No. 457,936. Patented Aug. 18, 1891.

Fig. 1.

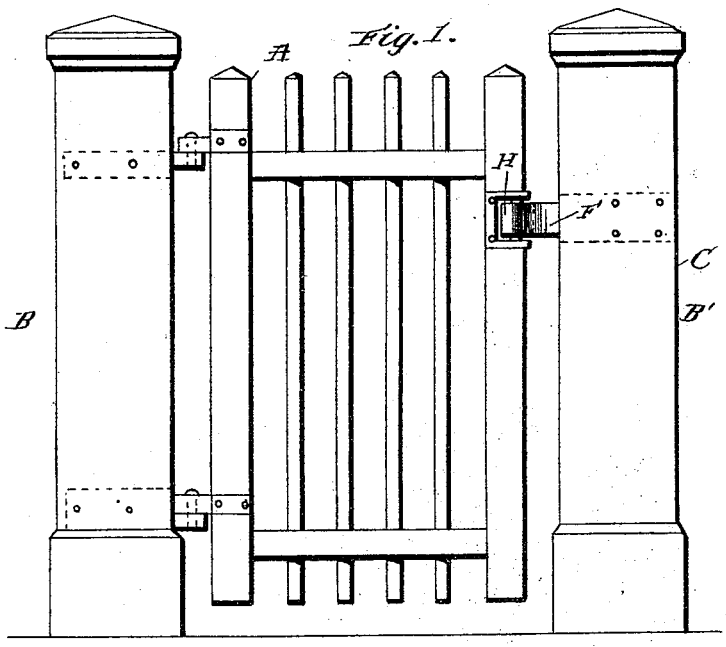


Fig. 2.

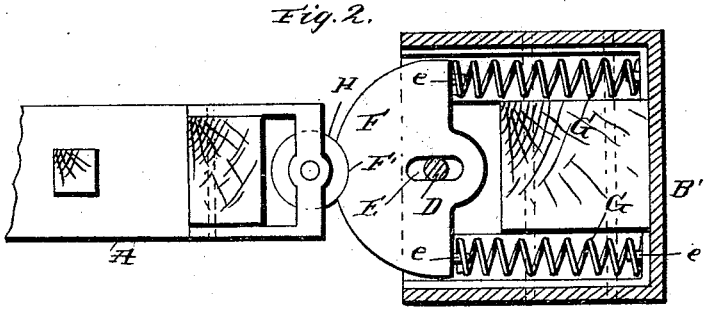
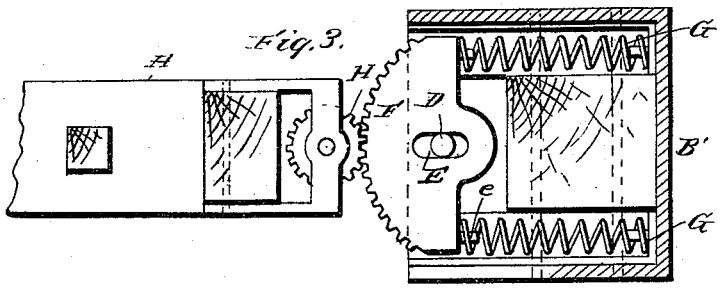


Fig. 3.



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FRANK RUGE, OF WOONSOCKET, RHODE ISLAND.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 457,936, dated August 18, 1891.

Application filed November 21, 1890. Serial No. 372,201. (No model.)

To all whom it may concern:

Be it known that I, FRANK RUGE, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Automatic Gate-Catches; 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.

My invention relates to improvements in gate catches or stops, and is designed more particularly for employment in connection with automatic hinges, such as illustrated in my application for Letters Patent filed August 4, 1890, Serial No. 360,876.

The improvements will be fully understood from the following description and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a front elevation of a gate and gate-posts embodying my invention. Fig. 2 is a horizontal sectional view of a portion of a gate and a gate-post, illustrating my improvements in plan. Fig. 3 is a similar view illustrating a modified construction in plan.

Referring by letter to the said drawings, A indicates a gate, which may be of the ordinary or any approved construction.

B B′ indicate, respectively, the hinge and catch carrying posts. The catch-carrying post B′ is preferably composed of an interior solid post, as illustrated in Fig. 2, to which the casing or boxing carrying the catch or stop mechanism is attached, and an outer rectangular finish or covering, as illustrated, to protect the mechanism from moisture, dirt, &c.

The rectangular casing or boxing C of the mechanism surrounds the interior post, and is attached thereto at a suitable elevation by means of transverse bolts, as better shown in Fig. 2, rectangular openings of sufficient size being provided in its top and bottom for the reception of said interior post. Seated in bearings in the top and bottom plates of the boxing C, adjacent to its front edge, is a pintle or guide-post D, which takes through a slot E in the block or casting F and serves as a pivot and guide therefor. The outer edge of this block or casting F is convex, as illustrated, and it normally extends a slight distance from the side of the post. The said convex edge of the block F is provided at a central point with a depression F′, in which the friction-wheel upon the gate (presently to be described) seats itself when the gate is swung closed. This block F is provided on its inner side at opposite sides of the slot with loop-eyes *e*, which receive one end of cushion or retracting springs G, which are attached thereto, and are of a size and strength to perform the function for which they are designed. The inner ends of the said springs G are suitably attached to the rear wall of the box or casing.

Journaled in a suitable frame upon the swinging end of the gate, on the same horizontal plane as the convex block or casting in the post, is a horizontal friction-wheel H, which when the gate is swung closed engages the convex edge of the block F and seats itself in the depression therein to hold the gate closed.

In operation when my improved catch is employed in connection with the automatic hinge described in my application before referred to, I design making the respective retracting or cushion springs of the hinge and catch of a proper relative strength to enable the cam described in my former application to carry the friction-wheel on the gate into the depression in the convex edge of the block F, which holds the gate in its closed position.

In operation it will be seen that when the gate is swung closed the friction-wheel H will engage the convex edge of the block F at one side thereof, when said block will give inwardly and allow the wheel to travel to the curvilinear depression, in which it will seat itself, when the strength of the retracting springs G, exerting an outward pressure upon the rear of the block, will hold the wheel and stop the gate in its closed position.

In Fig. 3 of the drawings I have illustrated a modification, in which a block having a convex toothed edge is employed instead of the block having the smooth convex edge and curvilinear depression and a toothed pinion instead of the smooth pinion or friction-wheel.

Having described my invention, what I claim is—

1. In a gate stop or catch, the combination,

with a gate-post, of a spring-backed pivoted block or casting sustained therein and having a convex contact-face provided with a depression, and a gate carrying a friction-wheel on its outer vertical rail and adapted to engage the convex face of said block, substantially as specified.

2. In a gate stop or catch, the combination, with a pivotally-mounted block or casting provided with a contact-face having a depression therein and backed by springs, one on each side of its pivotal point, of a friction-wheel mounted on the swinging end of a gate and adapted to engage the contact edge of the block or casting, substantially as specified.

3. The combination, with a horizontal friction-wheel mounted upon the free end of a gate, of a block or casting having a convex contact-face with a curvilinear depression therein and a longitudinal slot in its body, a pintle or pivot-post in the gate-post on which the block is mounted, and the retracting or cushion springs having one end attached to the rear edge of the block at the sides of the slot therein and their other ends attached to the post, substantially as and for the purpose described.

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

FRANK RUGE.

Witnesses:
GEO. W. SPAULDING,
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