

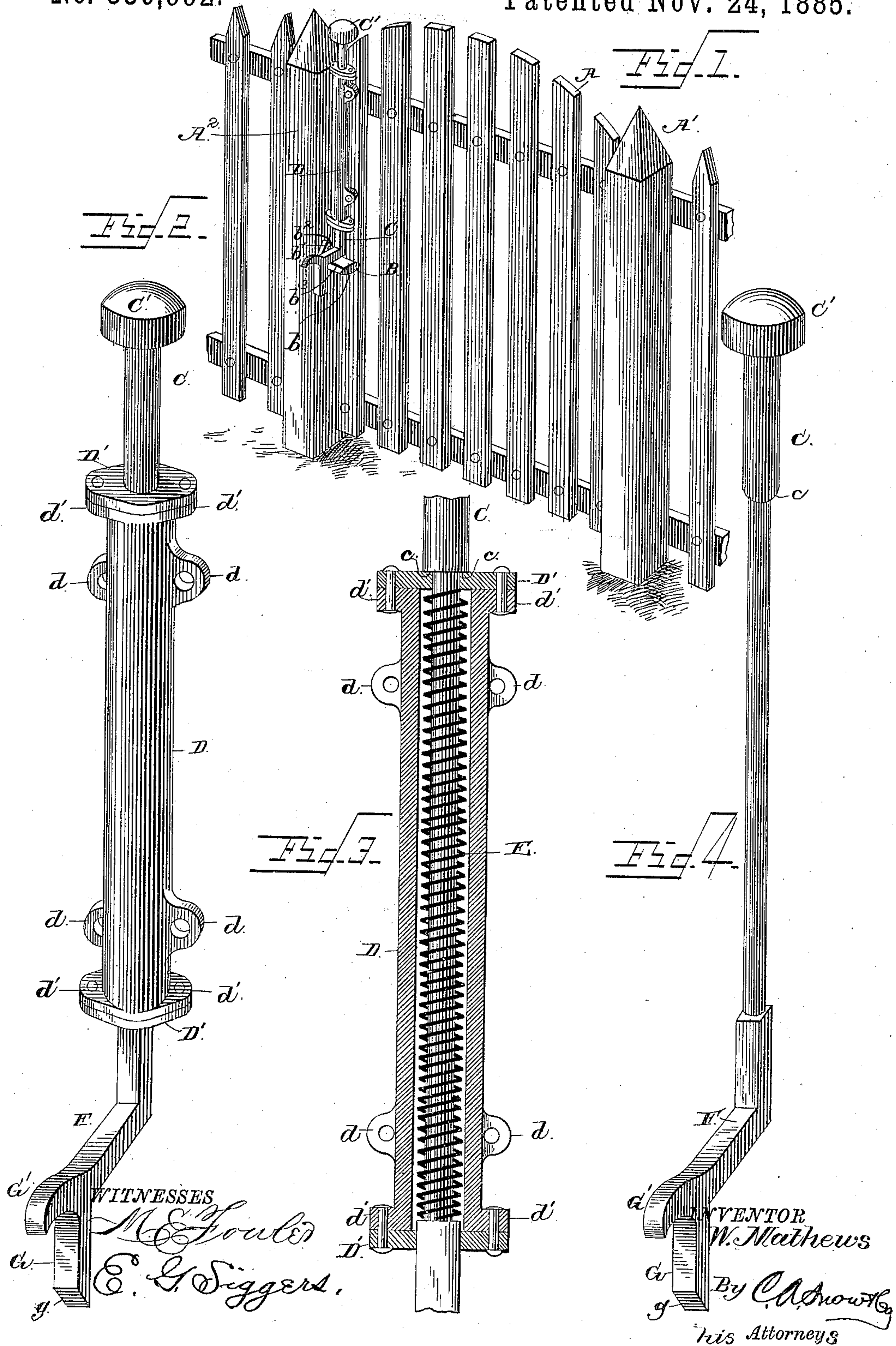
(No Model.)

W. MATHEWS.

GATE LATCH.

No. 330,992.

Patented Nov. 24, 1885.





# UNITED STATES PATENT OFFICE.

WILLIAM MATHEWS, OF LLANO, TEXAS.

## GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 330,992, dated November 24, 1885.

Application filed September 5, 1885. Serial No. 176,245. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MATHEWS, a citizen of the United States, residing at Llano, in the county of Llano and State of Texas, have invented a new and useful Improvement in Gate-Latches, of which the following is a specification, reference being had to the accompanying drawings.

My invention has relation to improvements in catches especially adapted for use in connection with gates of the swinging or hinged class; and the novelty consists in the peculiar construction, combination, arrangement, and adaptation of the several parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

The object of my invention is to provide a gate-catch which shall obviate the necessity of inserting the hand between the gate-bars to unlatch the fastening-catch, which is frequently attended with danger of hurting the hand, caused by the gate prematurely swinging open before the hand can be disengaged, and to provide means which shall combine simplicity with strength and durability, which shall be thoroughly effective and easy of operation, not liable to become disarranged or broken, and which shall be unaffected by the weather.

In the drawings hereto annexed, Figure 1 is a perspective view of a gate embodying my invention. Fig. 2 is a detailed view of the locking-bolt and its operating means detached from the gate. Fig. 3 is a vertical sectional view thereof, and Fig. 4 is a detail perspective view of the locking bolt or rod catch.

Referring to the drawings, in which corresponding letters of reference denote like parts in all the figures, A designates the gate, of any preferred construction or design, hinged or pivoted so as to be capable of a swinging movement in a horizontal plane upon a post, A'. A<sup>2</sup> designates the gate-post, which is provided with the catch B, that engages the locking-bolt C, carried by the gate, and which serves to lock the same against movement when in engagement with the catch B. The locking bolt or rod C passes through a cylinder, D, having perforated lugs *d d* cast thereon on each side and near the ends thereof. The cylinder supports the locking-bolt, and is secured upon one of the uprights or other part of the

gate, at the outer end thereof and at a point near the top, to permit the end of the locking bolt or rod to project above the plane of the top bars of the gate, to permit the same to be easily operated from either side thereof without compelling the operator to insert the hand through the bars of the gate. The cylinder D is provided at its ends with flanges *d'*, on which rest and are bolted or otherwise suitably secured thereto caps or heads D', the upper one of which has a circular aperture or opening for the passage of the locking-bolt, while the lower one has an enlarged squared opening, to permit the passage of the lower end of the locking rod or bolt. The rod or bolt C has a knob, C', secured upon the upper end thereof for its convenient operation, and at the point where it enters the cylinder-head it is reduced or cut away, to provide a stop or shoulder, *c*, to prevent the rod going too far in the cylinder. The lower end of the rod before it emerges from the cylinder is enlarged and made square, to prevent the rod from turning or rotating in the cylinder, the apertures in the cylinder-heads fitting snugly against the rounded and squared portions of the locking rod or bolt.

E designates a coiled or spiral spring, arranged around the locking rod or bolt within the cylinder D, one end of said spring being secured to the locking-bolt, and the other end being free to bear upon one of the cylinder-heads, to maintain the locking-bolt in its closed position at all times and in engagement with the catch B, such being the normal position thereof. The lower end of the bolt or rod is provided with a right-angled foot, F, arranged in a horizontal plane, to which is secured or formed a locking-shoulder, G, depending downwardly therefrom in a vertical position, and having its extreme lower end beveled or rounded, as at *g*, to permit the same to readily pass over the plate *b* of the catch B, the forward end of the horizontal foot having a curved projecting tongue, G'.

The catch B constitutes a single casting with the horizontal locking-plate *b* and the vertical right-angled lugs *b'*, arranged above and below the horizontal plate *b*, and having apertures *b<sup>2</sup>*, to permit screws to pass through to secure the plate in position upon the gate-post A<sup>2</sup>, the side edges or faces of the hori-



zontal plate *b* being beveled or rounded, as at *b*<sup>3</sup>, on each side, to permit the beveled end of the locking-foot to slide easily over the same in opening and closing the gate.

5 It will be observed that the spring-actuated rod is always kept normally depressed by the spring, and when the gate is closed the horizontal arm of the locking-foot lies parallel with and upon the horizontal plate of the  
10 gate-catch B, while the vertical arm of the foot is arranged at one side of the plate, fitting over the beveled edge thereof, the gate and its locking-bolt being permitted to come sufficiently forward to allow the locking-foot to  
15 engage the plate or catch B.

The operation of my invention is as follows: To unlatch the gate, the locking rod or bolt is elevated by pressing or pulling upon the head thereof, which causes the spring to retract or  
20 give and elevates the locking-foot from engagement with the latch-plate B *b*. The gate is now pushed open and the rod held elevated until the locking-foot thereof has passed the locking-plate, when the rod is released and the  
25 force of the spring returns it to its normal position.

To lock the gate, it is only necessary to elevate the rod until its foot is in engagement with the shoulder. The catch B is located  
30 midway between the upper and lower ends of its post, and the spring-bolt and its operating mechanism is located at the upper portion of the gate, to permit the locking-foot of the rod or bolt to come in engagement with the catch,  
35 the upper end of said bolt projecting above the gate-bars, to permit the same to be operated without requiring the hand to be inserted between the gate-bars, which is a great desideratum. The lower end of the locking-rod being  
40 squared and working in a squared bearing in the cylinder-head prevents the rod from turn-

ing and disarranging the locking-foot, while the upper end of the rod is cut away or shouldered, which bears upon the upper cylinder-head and prevents the rod being drawn down 45 too far.

The device can be easily and readily attached to and removed from a gate and post by any person, it only being necessary to place the device in position and secure it thereon by 50 means of screws or nails passing through the perforated lugs.

The retracting-spring, being inclosed wholly within the casing or cylinder, is protected from the weather and danger of becoming broken 55 or misplaced.

The device is simple, strong, and durable in construction, effective and easy in operation, and cheap of manufacture.

Having thus fully described my invention, 60 what I claim as new, and desire to secure by Letters Patent, is—

In a gate-catch, the combination, with the gate and post A<sup>2</sup>, of a cylinder having perforated lugs and removable heads, a locking-bolt 65 working in the cylinder and projecting above the plane of the gate, said rod having a reduced portion or shoulder, *c*, a squared portion, and a right-angled locking-foot, a spring arranged in the cylinder and secured at one 70 end to the locking-bolt, and a horizontal catch-plate having beveled side edges and perforated lugs for securing the plate to the post A<sup>2</sup>, substantially as described.

In testimony that I claim the foregoing as 75 my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM MATHEWS.

Witnesses:

C. C. CURRIE,  
J. M. ADAMS.