No. 632,215. Patented Aug. 29, 1899.

O. E. DAVIDSON.

GATE LATCH.

(Application filed Apr. 13, 1899.)

(No Model.)

Fig. 1.

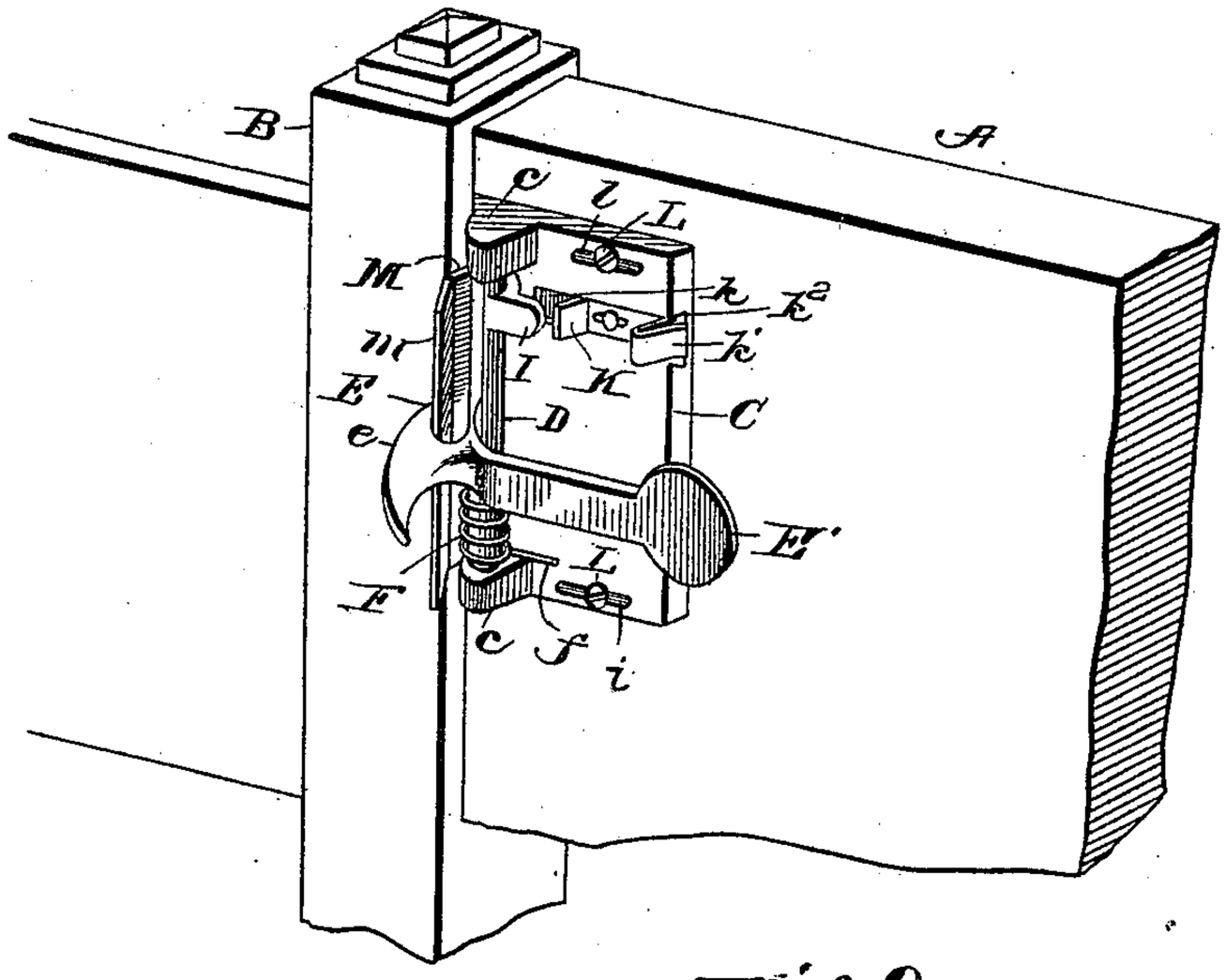


Fig. 2.

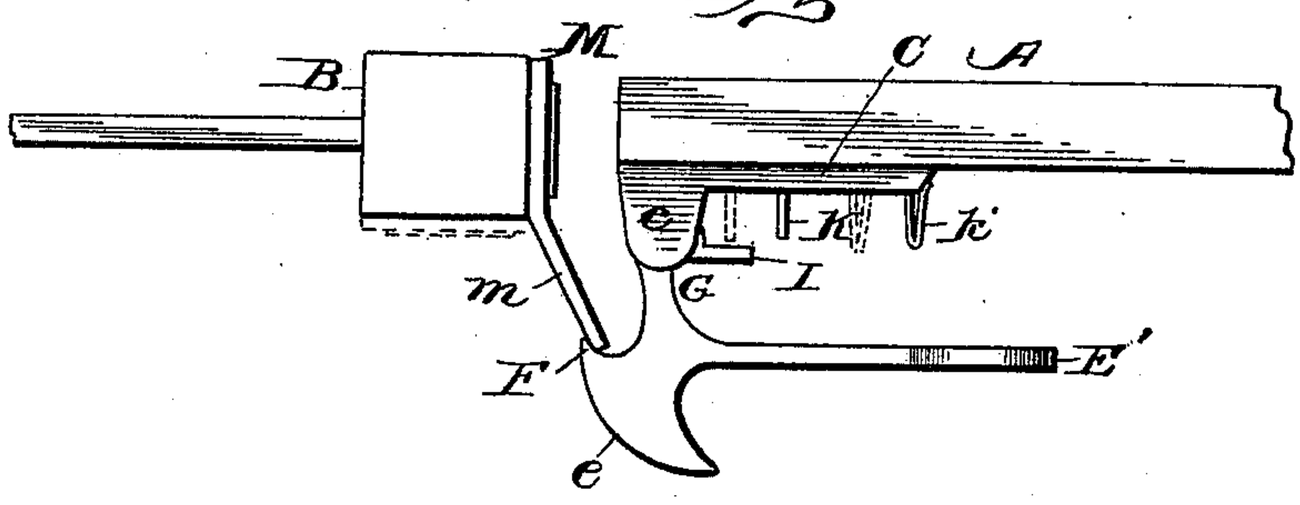
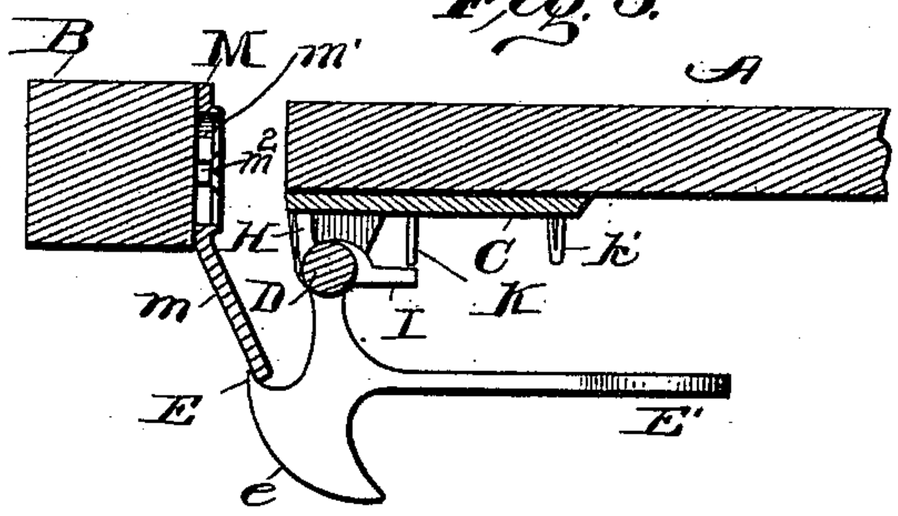


Fig. 3.



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UNITED STATES PATENT OFFICE.

OTIS E. DAVIDSON, OF NASHVILLE, TENNESSEE.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 632,215, dated August 29, 1899.

Application filed April 13, 1899. Serial No. 712,871. (No model.)

To all whom it may concern:

Be it known that I, OTIS E. DAVIDSON, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Gate-Latches; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements designed especially for application to gates and similar outside structures, although well adapted for fastening any swinging closure, such as a door or compartment-closure.

The invention has for its object to provide a simple universally-adaptable structure which may be readily applied under any ordinary existing conditions and which when applied will allow the gate or closure to have a large amount of play to prevent binding or inoperativeness of the latch due to sagging or distortion.

Referring to the accompanying drawings, Figure 1 is a perspective view of one portion of a gate, together with the jamb or gate-post, showing the application of my improved latch thereto. Fig. 2 is a top plan view, the guard-plate being shown in dotted lines as applied to the front of the post or jamb rather than to the inner face thereof. Fig. 3 is a cross-sectional view looking down and showing the stop for limiting the forward movement of the latch and the slide or lock for holding the latch in its closed position when so desired.

Like letters of reference in the several figures indicate the same parts.

The letter A indicates the gate, door, or closure, as the case may be, and the letter B the gate-post, door, jamb, or part with which the closure coöperates.

C indicates a latch-housing, which in the form shown is a substantially flat plate of metal having bearings *c* at top and bottom for the reception of a vertical pintle or latch-shaft D. This latch-shaft D has extending out from substantially the center a hook or latch E, provided with a long curved striker portion *e* and a rearwardly-extending hand or finger piece E′. A spring F, coiled around the lower portion of the latch-shaft, has one of its ends *f* extended to engage the base-plate or housing C and the other of its ends extended to coöperate with a recess or undercut portion G on the latch itself, the tendency of the spring being to hold the latch in position to coöperate with the guard or striker. The forward movement of the latch under the influence of its spring is limited by a stop projection H, preferably located on the upper end of the latch-shaft in position to engage the housing or base-plate, and also located preferably on this upper end of the latch-shaft is a rearwardly-extending projection I, beneath which the forward end of a slide or lock K, mounted in a guideway *k* on the base-plate, is adapted to pass in order to prevent the opening or swinging back of the latch when so desired. In the preferred construction this lock or slide is provided with a spring *k′* at the rear end, which when the slide is retracted will pass down over the edge of the base-plate or over a projection or incline k^2, provided therefor, in order to retain the slide in its position of adjustment, and when the said slide is advanced it will be held by the frictional engagement of this spring end with the base-plate or housing.

The base-plate or housing is held in position on the gate or door by means of screws or bolts L, preferably passing through horizontal slots *l* in the base-plate, thereby adapting the latch for adjustment toward or from the edge of the gate or door, so as to adapt the latch for use upon doors or gates having a close or loose fit, as the case may be.

For coöperation with the latch just described I provide a guard-plate or striker M, having a relatively long and wide inclined portion *m* and slots *m′*, through which the securing screws or bolts m^2 may be passed for holding the guard-plate or striker in position.

In the preferred construction the guard-plate or striker is applied to the inner face of the door or post, as shown in Fig. 1, and in position for the incline on the latch to ride up the incline in the inner face of the guard-plate and when the gate is closed for the hook to take over the edge of the guard-plate to prevent the opening of the gate again until the latch is released by an inward movement of the hand or finger piece. Obviously, however, the guard or striker plate may be ap-

plied to the side of the post or jamb, as shown in the dotted lines in Fig. 2, in which instance the operation will be the same; but the device will then be adapted for use where the edge of the gate or door fits more closely to the post or jamb.

From the foregoing it will be seen that the latch is adapted for application to structures having a very loose fit and when applied to ordinary gates and like structures will allow them to sag to a very great extent without putting the parts into inoperative relation to each other. The device is simple, cheap to manufacture, and is universally adaptable to this class of structures.

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

1. In a latch such as herein described, the combination with a base-plate having horizontal slots for the attaching members, top and bottom bearings on said base-plate, a latch-shaft pivoted in said bearings and having projecting therefrom a forwardly-extending hook provided with an inclined striker portion and a rearwardly-extending hand or finger piece, and a spring surrounding said shaft and having its ends extended to coöperate with the base-plate and latch respectively, to hold the latter in its operative position and a projection for limiting the forward movement of the hook and hand or finger piece and a guard-plate coöperating with the hook; substantially as described.

2. In a latch such as herein described, the combination with a base-plate having horizontal slots for the attaching members, top and bottom bearings on said base-plate, a latch-shaft pivoted in said bearings and having projecting therefrom a forwardly-extending hook provided with an inclined striker portion and a rearwardly-extending hand or finger piece, and a spring surrounding said shaft and having its ends extended to coöperate with the base-plate and latch respectively, to hold the latter in its operative position and a projection for limiting the forward movement of the hook and hand or finger piece, of a guard-plate having slots for the attaching members and a relatively long inclined edge for coöperation with the hook; substantially as described.

3. In a latch such as described, the combination with a base-plate having top and bottom bearings, a latch-shaft pivoted in said bearings and having a forwardly-extending hook and a rearwardly-extending hand or finger piece and a rearwardly-extending locking projection, of a slide or lock mounted on the base-plate and adapted to pass beneath the locking projection on the shaft and a spring for holding said slide or lock in its adjusted position; substantially as described.

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