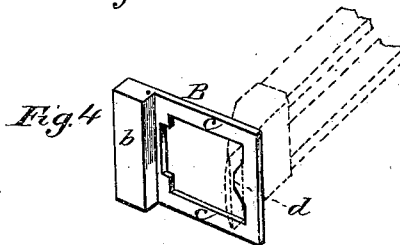
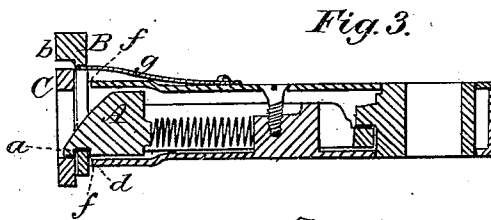
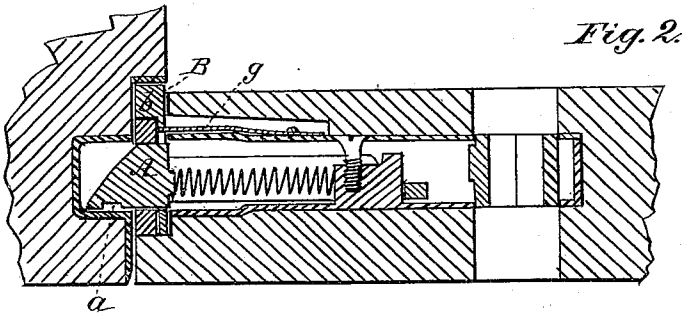
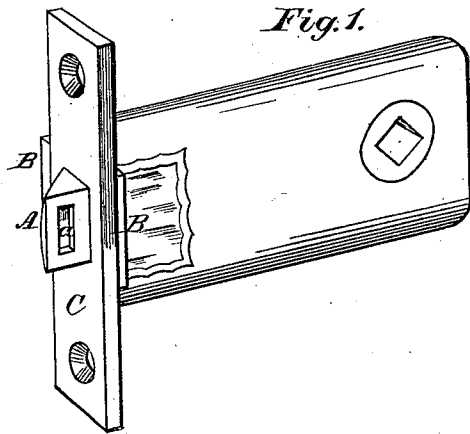


(Model.)

G. L. CRANDAL.
Latch.

No. 228,323.

Patented June 1, 1880.



Witnesses:
Floyd Harris
H. A. Perrine.

Inventor:
George L. Crandal
by Johnson & Johnson
Attys

UNITED STATES PATENT OFFICE.

GEORGE L. CRANDAL, OF BINGHAMTON, NEW YORK.

LATCH.

SPECIFICATION forming part of Letters Patent No. 228,323, dated June 1, 1880.

Application filed March 8, 1880. (Model.)

To all whom it may concern:

Be it known that I, GEORGE L. CRANDAL, of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Door-Latches, of which the following is a specification.

My invention relates to improvements in door-latches in which are used a spring-bolt with hand-knobs and a device for holding the bolt-latch retracted while the door is open, and to allow said latch to be projected when the door is closed, to prevent injury to the keeper and latch in closing the door.

I attain these objects by the device illustrated in the accompanying drawings, and which consists of a shouldered slide or push-tripper provided with a catch-tongue and guides, in combination with the latch-bolt provided on the rear side of its nose with a recess and a spring, as hereinafter more particularly described.

In the accompanying drawings, Figure 1 represents a view, in perspective, of a door-latch embracing my invention; Fig. 2, a horizontal longitudinal section, showing the latch-bolt projected into the keeper; Fig. 3, a similar view, with the latch-bolt held retracted, and Fig. 4 a detail of the spring push-tripper catch, which holds the bolt when retracted, and when actuated trips the same to allow it to be thrown.

The latch-bolt A is of the ordinary form, actuated by knob and spring to be thrown and withdrawn, except that on the rear part of the nose, back of the bevel, there is a recess, notch, or hole, *a*, for the reception of the locking catch or tongue of a push-tripper, B, of peculiar construction.

It consists of a shouldered push-bearing, *b*,

and two guide-bars, *c c*, connecting said push-bearing with the catch or tongue *d*, which engages with the notch *a* in the bolt, and is all cast in one piece, although the shoulder *b* might be welded on. When the bolt is thrown the shoulder rests on the edge of the face-plate C of the casing, as in Fig. 2. The push-bearing *b* is situated upon the inner side of the casing, and its guide-bars *c c* work through long slots *f f* in the casing, immediately back of the face-plate.

A plate-spring, *g*, is fastened to said inner side of the surface of the casing, and its free end is confined under the push-bearing *b*, so that when the bolt is retracted the spring lifts the push-bearing, and with it the catch, which latter, engaging with the notch in the bolt, holds it in retracted position.

When the door is closed and the push-bearing meets the jamb or other surface the catch is pushed out of the notch *a* by contact with the jamb, and the bolt is thrown, as in Fig. 2.

I have shown the usual bevel-faced bolt; but it is obvious that my invention is adapted for use with a square bolt.

I claim—

In a door-latch, the combination, with a latch-bolt, A, provided on the rear of its nose with a recess, *a*, of a push-tripper, B, consisting of the shouldered push-bearing *b*, catch-tongue *d*, and guide-bars *c c*, and the plate-spring *g*, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEO. L. CRANDAL.

Witnesses:

SILAS W. CRANDALL,
ALBERT HOTCHKISS.