

Key Fastener,

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UNITED STATES PATENT OFFICE.

J. F. TOZER, OF BINGHAMTON, NEW YORK.

IMPROVEMENT IN FASTENINGS FOR DOOR-LATCHES.

Specification forming part of Letters Patent No. 37,598, dated February 3, 1863.

To all whom it may concern:

Be it known that I, J. F. TOZER, of Binghamton, in the county of Broome and State of New York, have invented a new and Improved Catch or Fastening for the Knob-Arbors of Locks or Latches; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front or face view of my invention applied to the knob-arbor of a lock or latch; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and improved catch or fastening to be applied to the knob-arbors of locks and latches in order to prevent the turning of the knob-arbors from the outer side of the door, and thereby convert the ordinary latch-bolt of a lock into a secure fastening, so as to dispense with the use of extra inside bolts, which are generally used on doors to guard against the picking of the lock.

The invention consists in attaching to the inner side of the collar, which is placed on the knob-arbor at the inner side of the door, a circular plate having a segment removed or cut off from it, and using in connection with said plate a key and bearing, all arranged in such a manner as to form an efficient catch or fastening for the purpose specified.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the knob-arbor of a door lock or latch, and B is the latch-bolt with which the knob above is connected in the usual way, so that the former may be drawn into the case of the lock by the turning of the knob-arbor. These parts being arranged in the usual way, do not require a minute description.

C represents the fixed collar, which is attached to the outer side of the door D, and through which the knob-arbor A passes loosely, as usual. E is a loose collar, which is placed loosely on the knob-arbor A at the inner side of the door, and is not attached to the latter, the hollow shank F of the inner knob, G, fitting in a recess in the collar E, the shank F being attached to the knob-arbor A

by a screw. The collar E has a square opening at its center, through which the knob-arbor, which is also square, passes, and the collar E consequently turns with the knob-arbor. Both collars C E are of circular form. To the inner side of the collar E there is attached by screws *a* a circular plate, H, having a segment or portion removed or cut off from it so as to leave a straight edge, *b*, as shown clearly in Fig. 1. The plate H is of the same diameter as the collar E.

I is a metal plate, which is attached by screws *c* to the inner side of the door D. One part, *d*, of this plate is of circular form, and has a concentric position with the collar, the knob-arbor passing loosely through the center of *d*. The other part, *e*, of the plate I is of V form, as shown in Fig. 1, and said part has a bearing, J, attached to it by screws *e'*. This bearing J is formed of a metal plate having a recess or jog, *f*, at one end, so as to form a lip, *g*. The inner edge of the recess or jog, *f*, is parallel, or nearly so, with the straight edge *b* of the plate H, when the latch-bolt B is out beyond the end of the lock-case.

K is a metal key or wedge, which is attached by a chain, *h*, to the door D, and at such a point as to admit of the key being shoved down between the straight edge *b* of the plate H and the inner end of the recess or jog *f*. The lip *g* and the collar E retains the key in proper position. The key K, when thus fitted between the straight edge *b* of the plate H and the inner end of the recess or jog *f*, effectually prevents the turning of the knob-arbor A from the outer side of the door, and the drawing inward of the latch-bolt B. The latter, therefore, is made to serve as a bolt or fastening, and obviates the necessity of applying extra bolts to the inner sides of doors.

By the arrangement of the plate H and bearing J, as shown, the key is not acted upon through the medium of any material leverage power, as would be the case were the key applied directly to the knob-arbor, and hence the parts are not liable to be injured by any undue strain, as would be the case in the former arrangement. If the key were in direct contact with the square knob arbor, the leverage power obtained by the diameter of the knob G would have a tendency either to force out-

ward the bearing J or wear off the square corners of the knob-arbor, contingencies which cannot occur by my invention.

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

The plate H, attached to the inner side of the collar E, and having a segment removed or cut off from it so as to leave a straight edge or

surface, *b*, in combination with the bearing J and key or wedge K, all arranged and applied to the door, and in such relation with the knob-arbor A, to operate as and for the purpose herein set forth.

J. F. TOZER.

Witnesses:

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