No. 820,293. PATENTED MAY 8, 1906.

L. A. FOSTER.

KEY FASTENER.

APPLICATION FILED FEB. 23, 1905.

Fig. 1

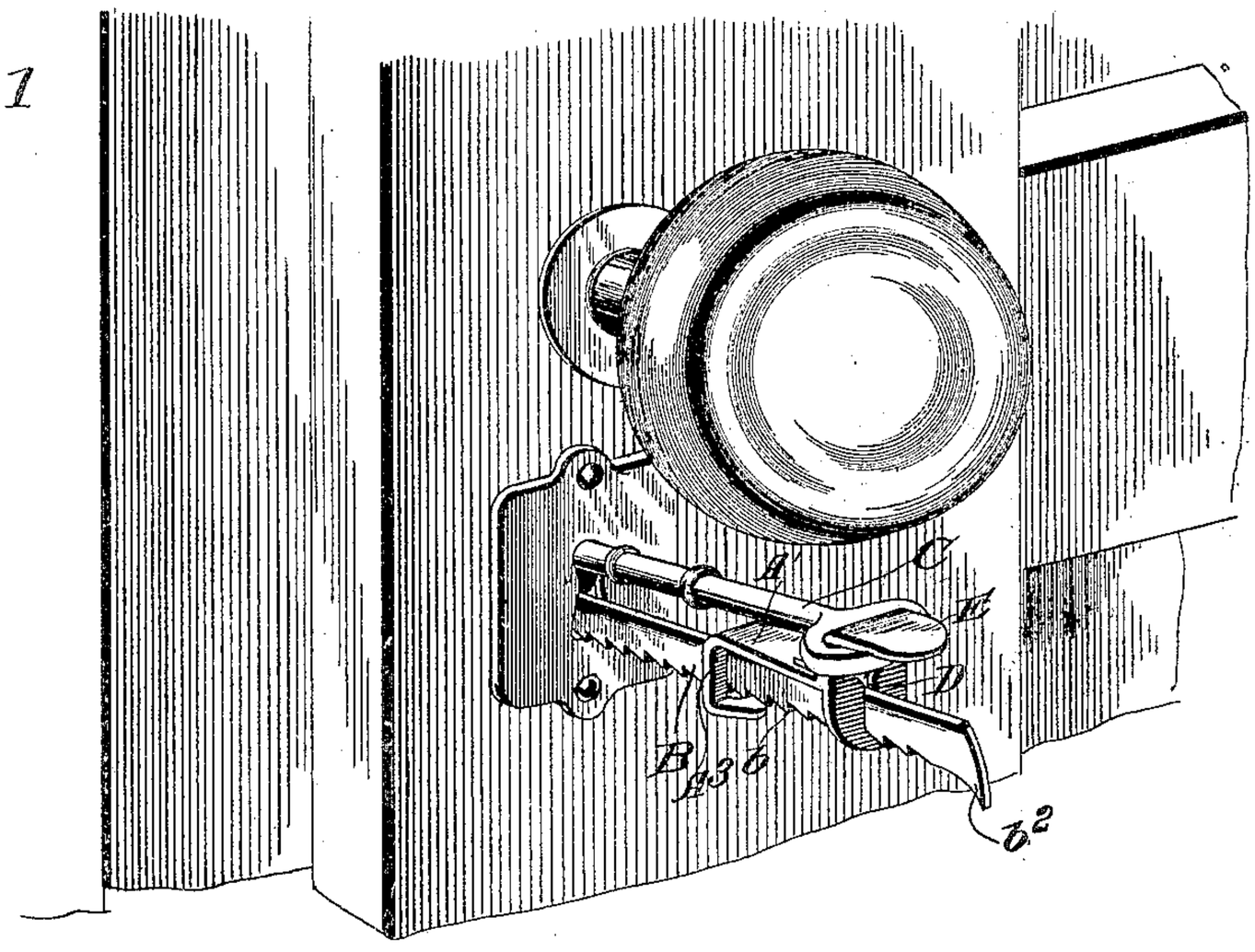


Fig. 2

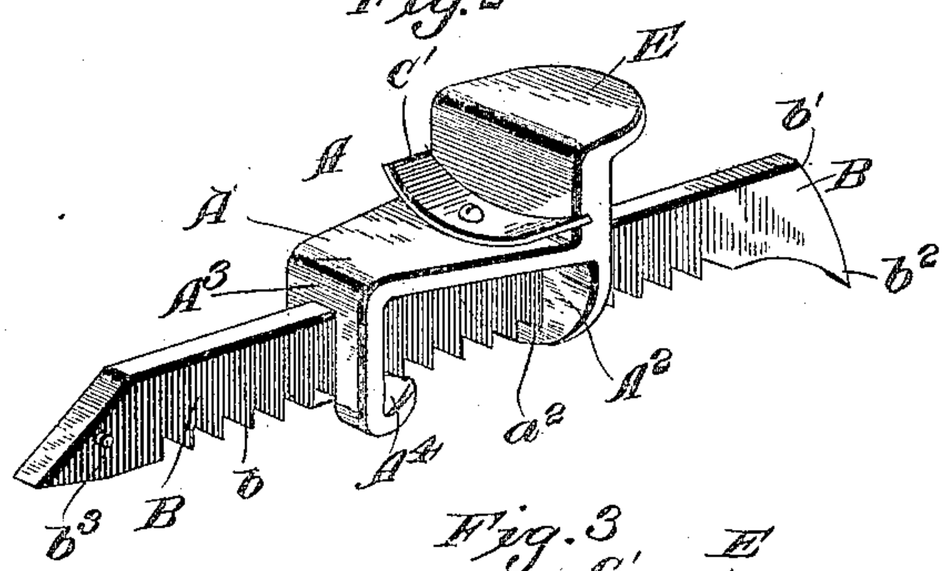


Fig. 3

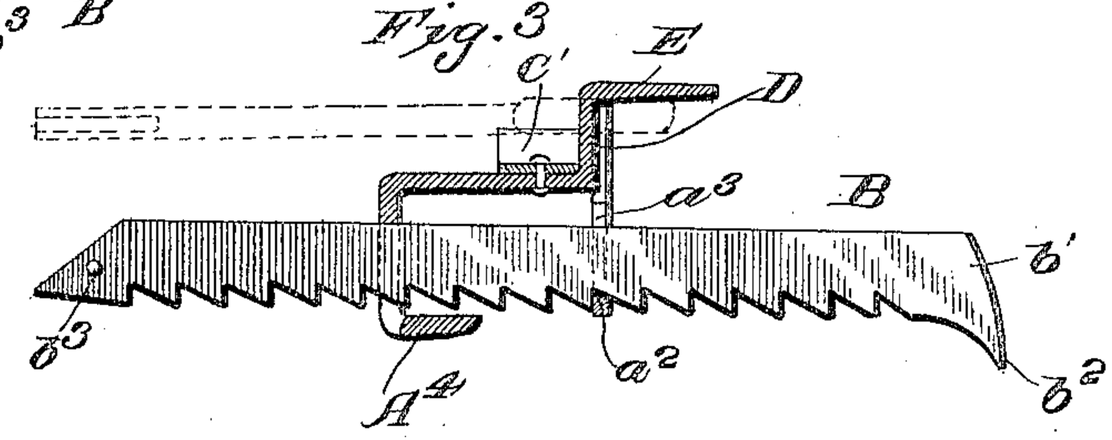
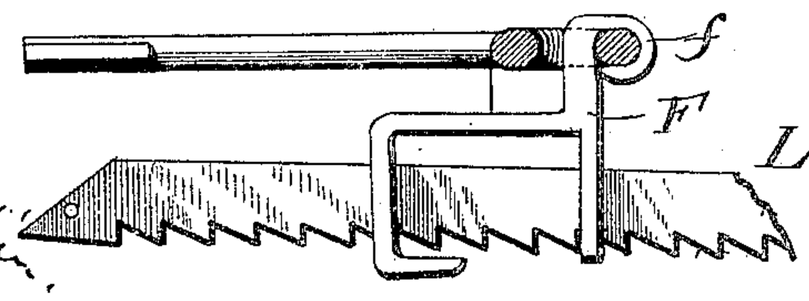


Fig. 4



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KEY-FASTENER.

No. 820,293. Specification of Letters Patent. Patented May 8, 1906.

Application filed February 23, 1905. Serial No. 246,866.

To all whom it may concern:

Be it known that I, LEROY A. FOSTER, a citizen of the United States, and a resident of Lagrange, in the county of Lagrange and State of Indiana, have invented a new and useful Improvement in Key-Fasteners, of which the following is a specification.

My invention is an improvement in key-fasteners, having for an object to provide a novel construction by which to prevent a key when in a lock from being turned by means of nippers or the like from the opposite side of a door; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my improved key-fastener as in use in connection with a key fastened by the device. Fig. 2 is a detail perspective view of the key-fastener. Fig. 3 is a longitudinal section of the fastener, the key being indicated in dotted lines; and Fig. 4 shows the fastener applied permanently to a key.

The purpose of the construction shown in the accompanying drawings is to prevent burglars or others from turning the key or otherwise opening a lock by the use of pliers or by forcing the key from the lock and then using a skeleton key or the like, and my device when applied operates to prevent any turning or displacement of the key and renders the cheapest locks as fully burglar-proof as the most expensive one.

As shown, the device includes what for convenience of reference I call a "key-section" A and a "rack-bar" B. The rack-bar B is provided with a series of ratchet-teeth *b*, which face outwardly or toward the outer end *b'* of the rack-bar, and this end *b'* may be enlarged or made wider, as shown at b^2, in order to prevent the key-section from moving off said end of the bar, as well as to provide a broader surface against which the operator may push in inserting the rack-bar into the keyhole. A short transverse pin b^3 may be applied to the opposite end of the rack-bar after the key-section has been applied thereto to prevent the key-section from being removed from such end of the rack-bar.

The key-section may, as shown in Figs. 1, 2, and 3, be disconnected from the key C and be applied thereto in use, as indicated in Fig. 1, or, if desired, the key-section may be permanently connected with the key, as shown in Fig. 4 of the drawings. In both constructions the key-section includes what for convenience of reference I call a "main" plate A', provided at its outer end with a depending lug A^2, embracing the rack-bar and forming at a^2 a pawl for engagement with the teeth of the rack-bar, as shown in Figs. 1, 2, and 3 of the drawings. The opening a^3 for the rack-bar is made sufficiently large to permit the device to be moved to set the pawl portion a^2 into and out of engagement with the teeth of the rack-bar when operated as presently described. This permits the rack-bar to be pressed inwardly through the key-section in inserting the inner end of the rack-bar into a keyhole in applying the device as described. At its inner end the main plate A is provided with a portion A^3, bearing upon the rack-bar. This portion A^3 is preferably in the form of a depending lug embracing the rack-bar and provided at its lower end beyond the rack-bar with a foot A^4, elongated in direction of length of the rack-bar and made of sufficient length to extend between two of the teeth *b* of said rack-bar in order to prevent any locking engagement between the lug A^3 and the teeth of the rack-bar in moving the latter back and forth through the key device in the use of the invention.

At its front end the key-section is provided with means engaging with the key-loop and immediately in rear of said means with a spring C', which bears beneath the key-loop and operates to draw the pawl a^2 into engagement with the teeth *b* of the rack-bar, as shown in Figs. 1 and 3 of the drawings. In this adjustment of the parts the bearing portion A^3 at the end of the main plate A' bears against the top or upper edge of the rack-bar, as will be understood from Figs. 2 and 3 of the drawings. In the detachable construction (shown in Figs. 1, 2, and 3) means are provided for engagement with the key-loop, comprising an upwardly-projecting lug D, which extends up from below and through the key-loop, and a forwardly-projecting tongue E at the upper end of the lug D, which tongue E overlies the front portion of the key-loop, as shown in Fig. 1 of the drawings. In the construction shown in Fig. 4 the forwardly-projecting lug F at the front or outer end of the main plate A' is bent around and into engagement with the front portion of the key-loop, as shown at *f*.

In operation the rack-bar may be turned outwardly in the key-section and the latter be applied to the key when in a lock by pass-

ing the tongue E up through the key-loop to the position shown in Fig. 1, and then pushing the rack-bar inwardly until its inner end enters the keyhole, as shown in Fig. 1 of the drawings. When in this position, the spring C′, forming a tension device, will operate to draw the pawl a^2 into engagement with the rack-bar, so that the latter cannot be forced outwardly except by direct manipulation of the key-section A, which can only be done on the side of the door where the key is located. By this means I prevent any manipulation, such as turning or displacement of the key from the opposite side of the door, and thus provide an efficient key-fastener for the described purpose.

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

1. A key-fastener substantially as herein described, comprising in combination a rack-bar adapted at its inner end to enter a keyhole and having on its lower edge teeth facing outwardly or toward its outer end, a key-section having a main plate extending longitudinally above the rack-bar and having at its inner end a depending lug embracing the rack-bar and provided beneath the same with a foot portion elongated in the direction of length of the rack-bar and made of such length as to extend between two of the teeth of said rack-bar, a pawl or plate depending from the outer end of the main plate and embracing the rack-bar and engaging at its lower end with the teeth thereof, an upwardly-projecting key-plate adapted to project through the key-loop and having a forwardly-projecting tongue to overlie the said loop, and a spring on the upper side of the main plate in rear of the key-plate and adapted to bear between the same and the loop of the key when the fastener is applied to the key in use, substantially as set forth.

2. The combination of a rack-bar adapted at its inner end to enter a keyhole and having its teeth facing outwardly or toward its outer end, a key-section having a main plate provided with a member for engagement with a key-loop and with a depending pawl or plate engaging with the teeth of the rack-bar, a spring on the main plate on the opposite side of the rack-bar from the teeth thereof, and arranged to bear beneath the key-loop in rear of the means engaging therewith, and a bearing portion at the inner end of the main plate and bearing upon the rack-bar, substantially as set forth.

3. A key-fastener comprising a rack-bar and a key-section comprising a main plate having key-engaging means provided at one end with a depending pawl or plate embracing the rack-bar and at its other or inner end with a bearing-lug embracing the rack-bar and provided beneath the same with a foot portion overlapping two of the teeth of the rack-bar, and a spring to bear between the main plate and the key-loop, substantially as set forth.

4. A key-fastener comprising a main plate having key-engaging means provided at its opposite ends with depending lugs having openings for a rack-bar and one of said lugs having at its lower side a pawl portion and the other having a projecting foot, and a rack-bar movable freely through the openings in said front and rear lugs when the parts are free of tension, and a spring acting upon the main plate and operated to draw the pawl into engagement with the rack-bar, substantially as set forth.

5. A key-fastener comprising a rack-bar, a key-section having a main plate provided at its front end with means for engaging the key-loop and with lugs projecting from the opposite side, one of them having a pawl portion that engages the rack-bar, the said main plate bearing at its inner end upon the rack-bar and the latter being slidable in the lugs, and a spring in rear of the key-engaging means, and arranged on the side of the key-section which is opposite the lugs.

6. A key-fastener comprising a rack-bar, a key-section having a main plate provided with a pawl engaging with the rack-bar, and also having means for engagement with the key-loop, and a spring on the opposite side of the rack-bar from the teeth thereof, and arranged to bear between the said key-section and a key when the fastener is applied for use, substantially as set forth.

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