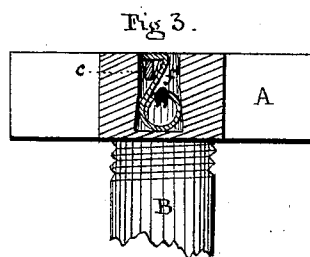
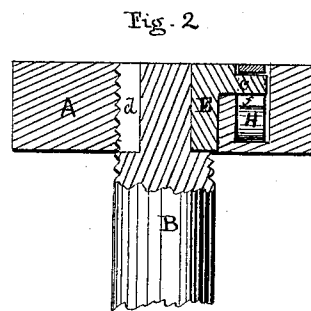
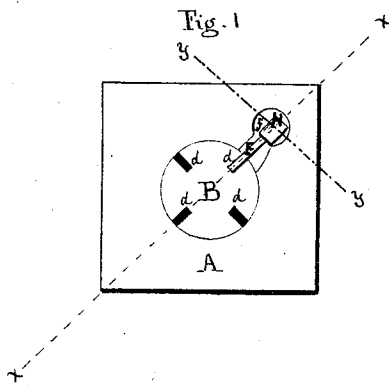


J. S. HILLARD.

Improvement in Nut-Locks.

No. 132,079.

Patented Oct. 8, 1872.



H. H. Young
J. H. Burr

George S. Hillard
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UNITED STATES PATENT OFFICE.

GEORGE S. HILLARD, OF SALESVILLE, OHIO.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. 132,079, dated October 8, 1872.

To all whom it may concern:

Be it known that I, GEORGE S. HILLARD, of Salesville, Guernsey county, State of Ohio, have invented an Improved Lock for Nuts, of which the following is a specification:

My invention relates to the confinement of a key interposed between the nut and the bolt upon which it is screwed in a recess cut in the one and the other to receive it by means of a spring, so confined in a cavity in the nut as to bear upon the key.

In the accompanying drawing, Figure 1 is a plan view of the nut and end of the bolt; Fig. 2, a transverse section in line *xx* of Fig. 1; and Fig. 3, a section in line *yy* of same figure.

A represents a nut; B, the bolt upon which the nut screws. The end of the bolt is provided with four opposite grooves, *d d d d*, cut longitudinally therein, as shown in Figs. 1 and 2, far enough and deep enough to receive a plain flat key, E, Fig. 2. This key consists of a piece of thin flat metal, cut or stamped out in the form substantially as shown in Fig. 2. A circular or cylindrical hole, *f*, is bored in the face of the nut near to its inner periphery, as shown in Figs. 2 and 3, and a notch or seat is cut through from the upper end of the hole to the inner periphery of the nut, to receive the projection *c* on the key, as shown in Fig.

2. H is a spiral spring inserted in the hole *f* in the nut, and whose outer end projects and is bent to fit over the projecting head of the key when it is fitted into its seat, as shown in Figs. 2 and 3. The spring will be self-retained in the aperture *f* with sufficient pressure to resist any ordinary tension or the tension of the key for its withdrawal.

The nut is locked upon the bolt by turning it until one of the grooves in the bolt is brought into register with the notch or key-seat in the nut, and then inserting the key into the groove in the bolt until its projecting head drops into the notch in the nut. When the key is thus inserted the end of the spring H will slip over it, and thereby secure the key in place. The key may be readily removed by slipping back the head of the spring.

I claim as my invention—

In combination with each other and with a nut and bolt, as described, a spring, H, seated in the nut, and arranged to bear upon a key, E, seated in the bolt and nut, to lock the same substantially as herein set forth.

Witness my hand hereto this 26th day of March, 1872.

GEORGE S. HILLARD.

Witnesses:

H. H. YOUNG,
D. A. BURR.