

J. A. McCRAY.  
NUT-LOCK.

No. 190,885.

Patented May 15, 1877.

Fig. 1.

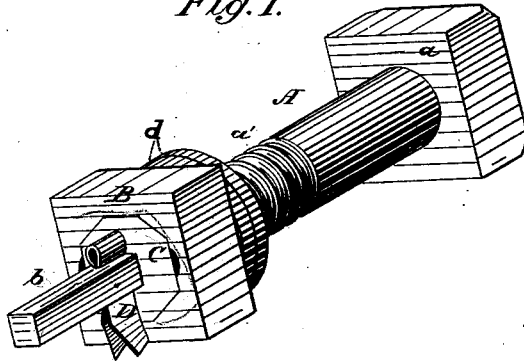


Fig. 3.

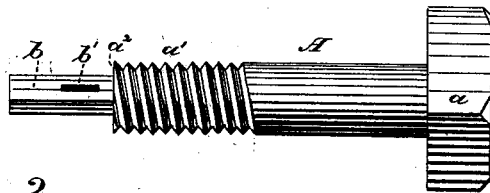


Fig. 2.

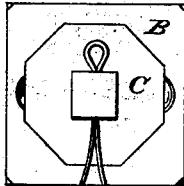


Fig. 4.

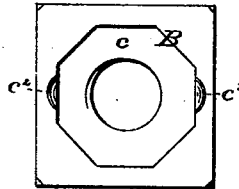


Fig. 5.

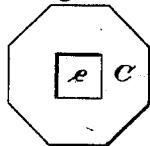
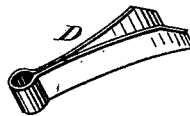


Fig. 6.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **190,885**, dated May 15, 1877; application filed April 9, 1877.

*To all whom it may concern :*

Be it known that I, JOSEPH A. McCRAY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Lock Nut and Bolt; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is a nut-lock which can be easily and conveniently applied to the nut after the same has been turned to the proper position on its bolt, and which will allow the bolt and the nut to be revolved together, if desired, without loosening such nut and without impairing the fastening; and my invention consists in the combination, construction, and arrangement of the several parts composing my nut-lock, all as more fully hereinafter explained.

To enable others skilled in the art to manufacture my device, I proceed to describe the same, having reference to the drawings, in which—

Figure 1 is a perspective view of a bolt, with the nut locked thereon by my improved nut-lock; Fig. 2, an end view of the same; Fig. 3, a separate view of the bolt; and Figs. 4, 5, and 6 separate views of the other parts of the nut-lock.

Like letters denote corresponding parts in each figure.

A represents a bolt, having the usual head *a* and screw-thread *a'*. This screw-thread, however, does not, as ordinarily, extend to the end of the bolt, but terminates at a shoulder, *a''*, Fig. 3, beyond which the end *b* of the bolt is diminished in size, and made square. Through this square end *b* is punched a hole, *b'*. B is the nut, (shown more particularly in Fig. 4,) which is of the ordinary shape, but has formed in its face an angular recess, *c*, surrounding the screw-threaded opening. C is a plate or key, which has a central square opening, *e*, adapted to fit over the square end of the bolt. This plate is made of the

same shape as the angular recess *c*, and is adapted to fit closely into such recess when in position, a groove, *c''*, being formed in one or more of the sides of the recess, by which the said plate can be easily removed, when desired.

In Fig. 6 is shown a spring-key, D, of the common or any convenient form, which is passed through the hole *b'* in the end of the bolt and prevents the plate C from slipping from its seat in the recess of the nut.

In use, the bolt is placed in position, and the nut turned on the same, so as to bring the bottom of the recess *c* nearly on a line with the shoulder *a''*, but it may be slightly in front or behind such shoulder.

If, however, the bolt is found to be rather long, one or more of the washers, *d*, may be slipped over the same to bring the nut into the proper position. After the nut is screwed on, the plate C is slid over the small end of the bolt into the recess in the nut, thus locking the same to the bolt, and the spring-key is passed through the hole *b'*, keeping the plate in such recess.

By these means a very efficient nut-lock is obtained, one which can be conveniently applied, and easily removed when desired, and which will allow the bolt to be turned without impairing the lock.

Having thus fully described my device, and explained some of its advantages, what I claim as new therein, and desire to secure by Letters Patent, is—

The combination, with the bolt A, of the nut B, provided with an angular recess in its face, the angular plate C in said recess, and spring-key D, substantially as described and shown.

This specification signed and witnessed this 3d day of February, A. D. 1877.

J. A. McCRAY.

Witnesses:

J. H. HOLMAN,

O. G. GETZEN-DANNER.