M. McDEVITT.

Devices for Unlocking Locked Nuts.

No. 149,773. Patented April 14, 1874.

Fig. 1.

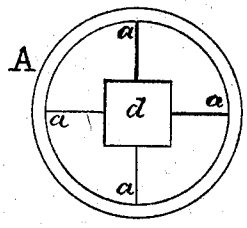


Fig. 2.

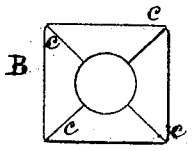


Fig 3.

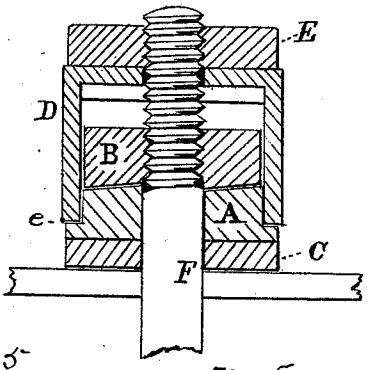


Fig. 4.

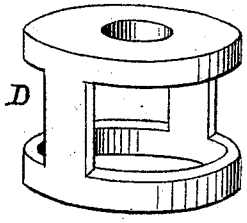


Fig. 5.

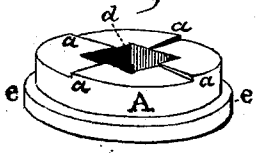
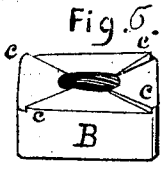


Fig. 6.



Witnesses:

J. Middleton

James A. Mandeville

Inventor

Martin McDevitt

Lincoln & Willard

attys

UNITED STATES PATENT OFFICE.

MARTIN McDEVITT, OF HAMPTON, VIRGINIA.

IMPROVEMENT IN DEVICES FOR UNLOCKING LOCKED NUTS.

Specification forming part of Letters Patent No. 149,773, dated April 14, 1874; application filed July 9, 1873.

To all whom it may concern:

Be it known that I, MARTIN McDEVITT, of Hampton, in the county of Elizabeth City and State of Virginia, have invented certain new and useful Improvements in Unlocking Lock-Nuts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a new and improved device to be used in connection with a lock-nut when applied to the ordinary bolt, for unlocking the same in order to remove said nut; and it consists of a metallic thimble with slotted sides arranged to fit over the end of the bolt, the lower edge resting upon a shoulder on the lower half of the lock-nut, which is made in two parts with locking-faces, as will be hereinafter described, in such a manner that the lower part of said nut may be pressed away from the upper part by means of a screw-nut on the bolt which bears against the upper end of the thimble, thus separating the locking-faces of the two parts of the nut, and allowing the upper part to be turned until both parts can be removed.

Figure 1 represents a view of the face of the lower portion of the lock-nut; Fig. 2, a view of the face of the upper portion of the same; Fig. 3, a sectional view of the nut and bolt with the unlocking device applied; Fig. 4, a perspective view of the metallic thimble; Fig. 5, a perspective view of the lower portion of the nut; and Fig. 6, a perspective view of the upper portion of the same.

The nut is formed in two parts, A B, as shown, both parts being provided on their locking-faces, which are placed together when the nut is in position, with a series of locking-shoulders, *a a* and *c c*. The lower portion of said nut is provided with a rectangular aperture, *d*, through the center, which fits over the rectangular portion of the bolt F below the screw-thread. The upper portion B is provided with a circular aperture through its center, in which a screw-thread is cut, forming a female screw to fit the threads of the male screw on the bolt. Below the lower portion of the lock-nut B is placed a circular elastic washer, C, which rests against the side of the object to be secured by the bolt.

It will be seen that when the bolt is in place, and the washer C and part A of the lock-nut are in place, the part B may be screwed down upon the part A until the faces meet, and, by farther turning the upper part B, the elastic cushion or washer C will give, allowing the locking-faces of the parts A and B to engage, whereby the upper one becomes fastened, and cannot be turned on the screw to loosen the lower part.

In order to unlock the nut thus secured, I employ a metallic thimble, D, with slotted sides, as shown, and a circular aperture through the top. This thimble is so constructed as to fit over the end of the bolt and the lock-nut thereon, as shown in Fig. 3, and rest against a shoulder, *e*, upon the lower portion A of the lock-nut.

The aperture through the top of the thimble may be provided with a screw-thread to fit the threads of the screw on the bolt, or it may be left plain, and a screw-nut, E, may be applied to the bolt over said thimble.

The object of this arrangement is to allow the lower edge of the thimble to be made to bear against the lower portion A of the lock-nut, in order to separate the two portions or unlock the nut.

It will be evident that, by causing the thimble to bear against the lower portion of the lock-nut A, the said portion will be pressed against the yielding cushion C, and the locking-faces of the two parts separated. The upper portion B may then be unscrewed a sufficient distance to prevent the two faces from meeting, when the thimble is removed by means of the fingers or a wrench, which may applied to the nut through the slots in the thimble. The thimble may then be removed, after which the nut may be taken entirely off the bolt.

What I claim is—

In combination with the shouldered washer A and elastic washer C, the thimble D and nut E, for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of May, 1873.

MARTIN McDEVITT.

Witnesses:
W. H. GLEASON,
JAMES H. MANDEVILLE.