No. 769,033. PATENTED AUG. 30, 1904.

C. W. S. TURNER.

NUT LOCK.

APPLICATION FILED JUNE 8, 1904.

NO MODEL.

Fig. 1.

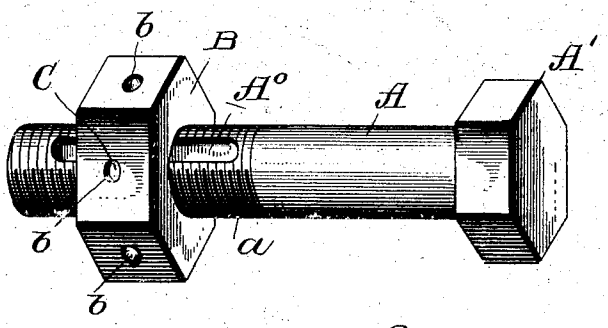


Fig. 2.

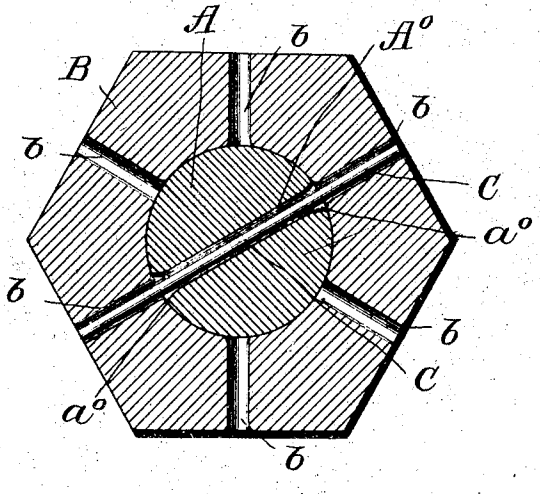
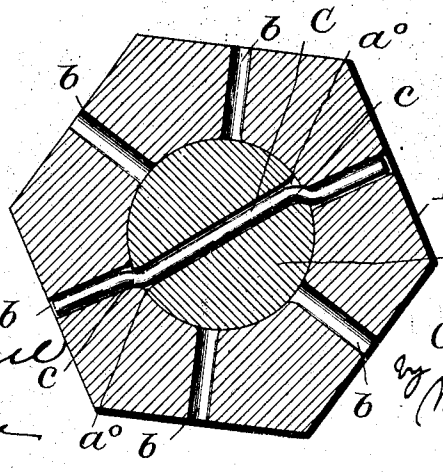


Fig. 3.



Witnesses
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No. 769,033. Patented August 30, 1904.

UNITED STATES PATENT OFFICE.

CHARLES W. S. TURNER, OF MOUNTVILLE, VIRGINIA, ASSIGNOR OF ONE-HALF TO WALLACE NEFF, OF WASHINGTON, DISTRICT OF COLUMBIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 769,033, dated August 30, 1904.

Application filed June 8, 1904. Serial No. 211,660. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. S. TURNER, a citizen of the United States, residing at Mountville, in the county of Loudoun and State of Virginia, have invented certain new and useful Improvements in Nut-Locks; 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 appertains to make and use the same.

This invention relates to nut-locks, more particularly to that form of nut-lock in which the bolt and nut are coupled together by a key capable of being flexed to prevent their relative rotation or endwise separation; and the objects of the invention are to improve upon the construction of such devices, increase their efficiency, simplify their parts, and thus decrease their cost of manufacture, and to obviate many of the objections which have heretofore been found to exist in devices of this class.

To the accomplishment of these objects and such others as may hereinafter appear, the invention comprises a nut-lock embodying the novel construction and combination of elements and arrangement of parts having the general mode of operation substantially as hereinafter fully described, and particularly pointed out in the appended claims.

Reference is had to the following description and accompanying drawings, wherein the preferred embodiment of the invention is illustrated, although the essential and characteristic features thereof are susceptible of modification.

In the drawings, Figure 1 represents a perspective view of my improvement, disclosing a bolt with a nut locked thereon. Fig. 2 represents a cross-sectional view through substantially the center of the nut after the same has been threaded on the bolt, but before being locked thereto; and Fig. 3 represents a similar cross-sectional view as Fig. 2, disclosing the nut in locked position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, A represents the shank of a bolt provided with a head A′ of any suitable configuration and a threaded portion *a*. In the threaded portion *a* of the shank A is provided a slot A^0, extending transversely entirely through the said shank and extending longitudinally a sufficient distance to allow a broad margin of adjustment between the head A′ and the nut B constructed to be threaded on the bolt-shank. The nut B is here shown as hexagonal, but may be of any suitable or desirable configuration, and is provided through each of its flats with a radial hole or bore *b*, drilled or otherwise formed in substantially the center thereof in such manner that the holes in opposite faces are diametrically opposed to each other, so that when the nut B is screwed down on the shank A to such a position as shown by Fig. 2 the radial holes *b* in two opposite flats combine with the slot A^0 to form a continuous diametral aperture through both nut and shank.

As shown more particularly by Figs. 2 and 3, the longitudinal edges of the slot A^0 are slightly beveled, as at a^0, and the inner ends of the radial holes *b* may also be given a slight bevel, if desired. Through the continuous aperture *b* A^0 *b* is passed a rod or pin C, which need not be more than the distance between the flats of the nut B in length and is preferably formed of some malleable metal capable of being readily flexed under moderate pressure, such as ordinary iron or steel wire.

The operation of the device is obvious from the figures of the drawings, and therefore need only be briefly referred to. To lock the nut after its having been screwed home against the pieces to be clamped, the pin C is inserted, as shown by Fig. 2, and then the nut B is given a further twist, and the pin C is bent about the bevels a^0 of the slot A^0, so as to be incapable of withdrawal, as shown by Fig. 3. To release the pieces clamped together, the nut B is turned back slightly. The pin C is thus straightened to such an extent that it may easily be removed from its engagement with the bolt and nut, and the nut can then be unscrewed.

While the invention has been described with

particular reference to the details of construction, it should be understood that it is not to be limited thereto, as many and various changes, alterations, and substitutions may be made therein and still fall within its scope and principle; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a nut-lock, the combination with a bolt provided with a longitudinally-arranged slot therein having beveled edges, of a nut provided with oppositely-arranged radially-disposed holes constructed to fit on said bolt, and a pin constructed to pass through said holes and said slot adapted to be flexed across said beveled edges by a movement of said nut, substantially as described.

2. The combination with a bolt provided with a longitudinally-arranged slot having substantially diametral sides and beveled edges, of a nut provided with oppositely-arranged, radially-disposed holes screwed onto said bolt, and a pin reversely bent across said beveled edges held in said holes and said slot, substantially as described.

3. In a nut-lock, the combination with a bolt provided with a longitudinally-arranged slot therein having beveled edges, of a nut provided with a radially-disposed hole substantially in the center of each of its flats constructed to fit on said bolt, and a pin constructed to pass through any two opposite holes and said bolt-slot adapted to be flexed by a movement of said nut, substantially as described.

4. In a nut-lock, the combination with a perforated bolt, a nut adapted to screw over the perforated portion of said bolt with radial perforations through said nut, and a pin of less diameter than one of said perforations, and held in engagement with said bolt and said nut by being permanently flexed at the junction between the two, substantially as described.

5. In a nut-lock, the combination with a perforated bolt, a nut adapted to screw over the perforated portion of said bolt with radial perforations through said nut, and a pin of less diameter than one of said perforations, and held in engagement with said bolt and said nut by being permanently flexed at the junction between the two, the said pin before being flexed having a length equal to or slightly less than the distance across the nut so that the ends of the said pin may be drawn beneath the surface of said nut after said pin has been flexed, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. S. TURNER.

Witnesses:
GEO. A. BYRNE,
G. A. BRERETON.