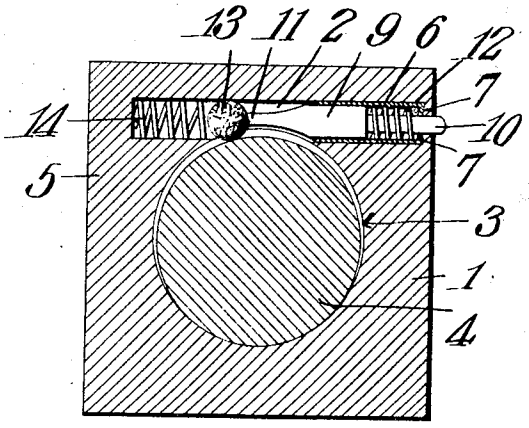
No. 898,188. PATENTED SEPT. 8, 1908.

C. H. COVEY.

NUT LOCK.

APPLICATION FILED APR. 13, 1908.

Fig. 1.



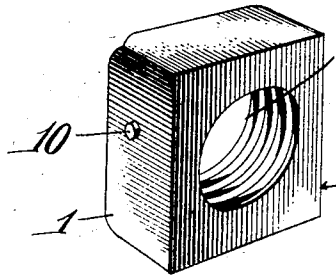


Fig. 2.

Fig. 3.

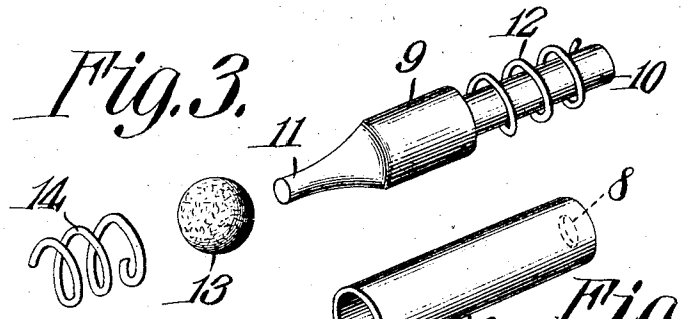


Fig. 4.

Witnesses

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CHARLES H. COVEY, OF MARIETTA, OHIO.

NUT-LOCK.

No. 898,188. Specification of Letters Patent. Patented Sept. 8, 1908.

Application filed April 13, 1908. Serial No. 426,796.

To all whom it may concern:

Be it known that I, CHARLES H. COVEY, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented a new and useful Nut-Lock, of which the following is a specification.

This invention relates to nut locks and has for its object to provide a device simple in construction, and capable of being applied to most ordinary bolts now in use.

With most devices of this kind now in use, certain forms of bolts are required in order to effectively lock the nut. The present invention aims to remedy this defect by so constructing the locking mechanism of the nut, that it will operate on the thread of any bolt.

Still another object is to provide a means of readily actuating the locking mechanism to unlock the nut.

With these, and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel details of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a transverse sectional view taken through a bolt, and nut showing the device applied thereto. Fig. 2 is a perspective view of a nut showing the means for operating the locking mechanism to unlock the nut. Fig. 3 is a detailed perspective of the locking mechanism. Fig. 4 is a similar view of the plunger casing.

In the construction of the device as illustrated in Figs. 1 and 4 inclusive a nut 1 which may be of any well known type is provided on one face with an orifice 2, extending transversely and in a plane parallel with one side wall of the nut, cutting a portion of the wall of the central opening 3 that receives the bolt 4 and terminating adjacent the opposed face 5 of the nut, thus forming a pocket or seat for the reception of the locking mechanism. The construction of the latter consists of a cylindrical metallic sleeve 6 of an exterior diameter adapted to snugly fit within the pocket 2 and of a length equal to the distance between the opening to the pocket and the point of intersection with the opening 3. The sleeve is secured in place by mashing down the metal around the outer edge of the pocket, on the head 7. That end of the sleeve adjacent the opening of the pocket is provided with a head 7 having a central opening 8 of considerable less diameter than the bore of the sleeve. An unlocking member is in the present instance illustrated in the form of a plunger, provided with a head 9 of an exterior diameter adapted to slidingly fit within the sleeve 6 and from one end of the head projects a shank 10, of considerable less diameter than the head 9 and adapted to slidingly fit through the opening 8 of the sleeve 6. The opposite end of the head 9 terminates in a reduced conical portion forming a nose 11. A helical spring 12, adapted to encircle the shank 10 and the terminals of which abut the head 7 of the sleeve and shoulder formed by the head and shank normally forces the head and nose toward the bottom of the pocket. A locking member here shown as a spherical piece of metal 13 provided with a roughened surface is of a diameter adapted to slidingly fit in the pocket 2. A helical spring 14 forms a support for the locking member 13 and is of a length adapted to hold the locking member within the opening formed by the cutaway portion of the threaded wall of the nut. With the construction thus far described it is obvious that when the parts occupy the positions illustrated in Fig. 1 the springs 12 and 14 are relaxed, it being understood that the length of the latter is sufficient to hold the ball projecting into the threaded opening, and the length of the spring 12 sufficient to keep the nose 11 in slight contact with the opposed face of the ball, now by turning the nut 1 to the right on the bolt 4, the threads of the latter will engage the roughened surface of the latter and roll the latter into the lower portion of the pocket against the tension of the spring 14, but when the nut is rotated in the opposite direction to remove it the bolt threads roll the ball in an opposite direction which jams it between the bolt and the outer wall of the pocket, finally wedging the nut against further movement as shown in Fig. 1. In order to release the ball from this position the plunger is pressed and the nose 11 contacting with the surface of the ball forces

the latter against the tension of the spring 14 down into the pocket. When the ball is in this position the nut can be removed.

What is claimed is:—

1. A nut lock embodying a nut having a seat intersecting the threaded opening of the nut a yielding support in one end of said seat and a locking member on said support, a sleeve fitted in the opposite end of said seat and an unlocking member in said sleeve free from but yieldingly held in engagement with said locking member.

2. A nut lock embodying a nut having a seat intersecting the threaded opening of the nut a yielding support fitted in one end of said seat and a spherical locking member on said support a sleeve fitted in the opposite end of said seat and an unlocking member in said sleeve provided with a conical nose yieldingly held in engagement with said locking member.

3. A nut lock embodying a nut having a seat parallel with one side thereof and intersecting the threaded opening of the nut, a yielding support fitted in one end of said seat and a locking member having a roughened surface on said support, a sleeve fitted in the opposite end of said seat and provided at one end with a reduced opening an unlocking member having a shank portion on one end adapted to enter this opening and a conical nose on the opposite end adapted to be yieldingly held in engagement with said locking member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES H. COVEY.

Witnesses:
JACOB BOHL,
GEO. W. STRECKER.