T. M. BREWER.

NUT LOCK.

APPLICATION FILED JULY 6, 1911.

1,025,676. Patented May 7, 1912.

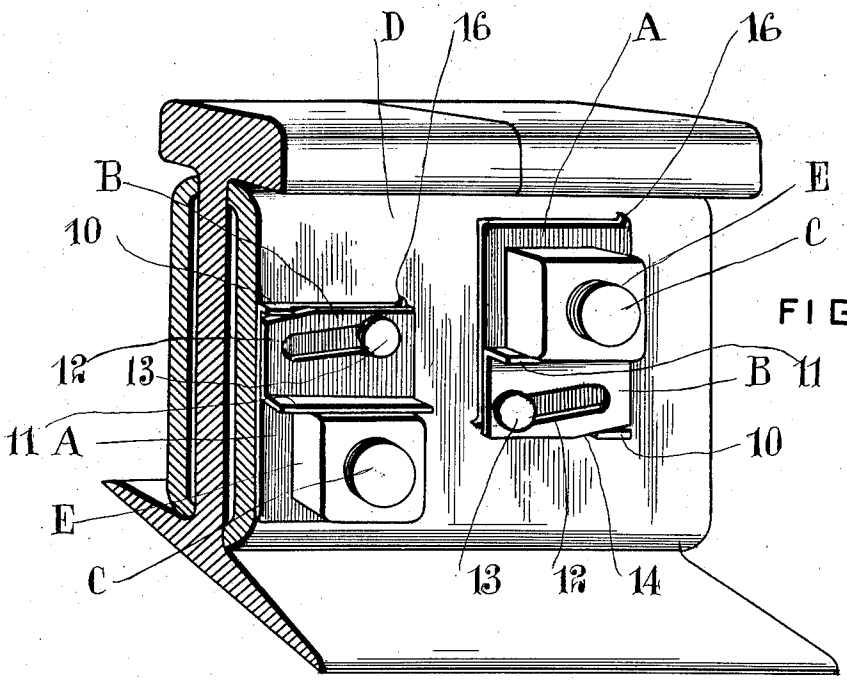
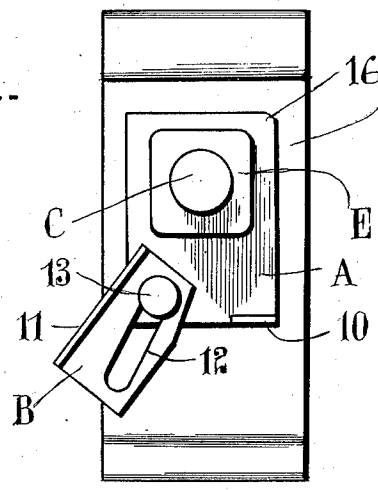


FIG. 1.

FIG. 2.



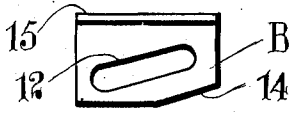


FIG. 3.

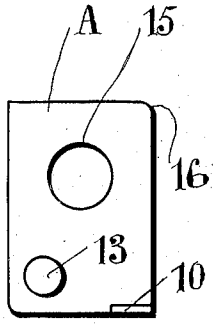


FIG. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

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NUT-LOCK.

1,025,676. Specification of Letters Patent. Patented May 7, 1912.

Application filed July 6, 1911. Serial No. 637,077.

To all whom it may concern:

Be it known that I, THOMAS M. BREWER, of the parish of St. Marys, county of York, Province of New Brunswick, Dominion of Canada, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

This invention relates to improvements in nut locks and the objects of the invention are to provide a simple and effective form of lock composed of two members which will certainly and securely retain the nut in adjusted position on a bolt.

Further objects are to provide such locking means as may be readily unlocked without the use of a wrench or other means to permit unscrewing of the nut.

Another object is to provide an instrumentality of the class specified, which from an operative standpoint will in usage possess a high degree of efficiency and effectiveness and which, structurally considered, will be of the greatest possible simplicity, being composed of but a few parts, all adapted for being made at a minimum of cost and individually so formed as to be capable of being readily assembled in a neat and compact arrangement for accomplishing the purpose intended.

Other objects and advantages will be in part obvious and in part pointed out hereinafter, and with these and other ends in view, this invention accordingly consists in the features of construction, combination of parts and arrangement of elements hereinafter more explicitly set forth as an exemplification of the underlying principles involved in the invention.

In order that this invention may be more fully understood and to be comprehensible to others skilled in the art, drawings illustrating a convenient means of carrying out the same are pointed out as a part of this specification, and while the controlling principles of the invention may be otherwise applied by modifications falling within the scope of the claims, the hereinafter disclosed embodiment is that which will ordinarily be preferable to employ in practice and is regarded as representing substantial improvements over the many obvious or implied variations of the same. In such drawings it is to be noted that like numerals refer to corresponding parts throughout all the figures of the drawings.

In the drawings: Figure 1 is a perspective view showing the device in use. Fig. 2 is a side view. Fig. 3 is a plan of the locking plate adjusted. Fig. 4 is a plan view of the base plate.

Referring to the drawings: A represents a base plate adapted to fit about a bolt C, as illustrated, the bolt extends through a rail D but it is evident that it could be used in a great variety of other locations and that shown is for the sake of illustration only. The bolt is adapted to extend through a perforation 15 in the base plate and while the base plate itself will normally be prevented from turning by the pressure of the nut E thereon yet additional security against turning may be given by means of downwardly turned lip 16 on the corners of the base plate.

Loosely mounted on the base plate is the locking plate B and means are provided to cause the locking plate to bind against the nut on the bolt when the plate is moved longitudinally. These means are such as to cause the plate to exert a uniform pressure on the side of the nut. They comprise a stud 13 on the plate A which extends through an inclined slot 12 in the locking plate and an upturned flange 10 on the base plate adapted to engage an inclined edge 14 on the locking plate, which inclined edge renders the locking plate more or less wedge shaped in form. To increase the engaged surface of the locking plate against the nut, a turned flange 11 may be provided on the locking plate adapted to abut the side surface on the nut.

It may be noted that the side walls of the slot 12 are not parallel but are slightly converged toward each other at the end at which the stud will extend when in locked position whereby in moving to locking position the walls of the slot will tighten about the stud and more securely hold the locking plate in locked position.

When unlocked the locking plate may hang loosely on the stud 13 as shown in Fig. 2. When it is desired to lock the nut after it is screwed home the locking plate is moved longitudinally and the pressure of the stud on the wall of the inclined slot and that of the flange 10 on the inclined edge 14 will cause the locking plate to move parallel to itself toward the side surface of the nut against which it will bind. The locking

plate may be readily loosened by a longitudinal movement in the reverse direction.

It will be seen that the present invention provides an exceedingly simple and effective form of nut lock, well adapted to perform the functions required of it. It may be very readily locked or unlocked and this may even be done by a workman in cold weather without removing his gloves or mittens.

What I claim as my invention is:—

1. A nut lock comprising a base plate adapted to fit about the shank of the bolt, a locking plate thereon having an inclined slot and an inclined edge and means on the base plate engaging the slot and the inclined edge at points longitudinally separated and adapted to force the locking plate against the nut when the locking plate is moved across the base plate.

2. A nut lock comprising a base plate adapted to fit over the shank of the bolt, provided with a projection, a tapered locking member adapted to lock between the projection and the nut, provided with an inclined slot, a stud provided with an enlarged head sliding therein secured to the base plate.

3. A nut lock comprising a base plate adapted to fit over the shank of the bolt, provided with a projection, a locking member provided with a flange adapted to abut the nut, said locking member being provided with an inclined slot and with an inclined edge against which the projection is adapted to bear in order to force the member against the nut, and a stud provided with an enlarged head adapted to slide in the slot and secured to the base plate.

4. A nut lock comprising a base plate having a stud and an upturned flange, a locking plate having an inclined slot through which the stud extends and an inclined edge against which the flange is adapted to bear in order to force the plate against the nut.

5. A nut lock comprising a base plate having a stud and an upturned flange, a locking plate having an inclined slot through which the stud extends and an inclined edge against which the flange is adapted to bear in order to force the plate against the nut, said locking plate having an upturned flange adapted to abut the side surface of the nut.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

THOMAS MURRY BREWER.

Witnesses:
OSWALD S. CROCKET,
EVELYN E. STEEVES.