

No. 871,641.

PATENTED NOV. 19, 1907.

C. SCHRECK.
NUT LOCK.

APPLICATION FILED APR. 26, 1907.

Fig. 1.

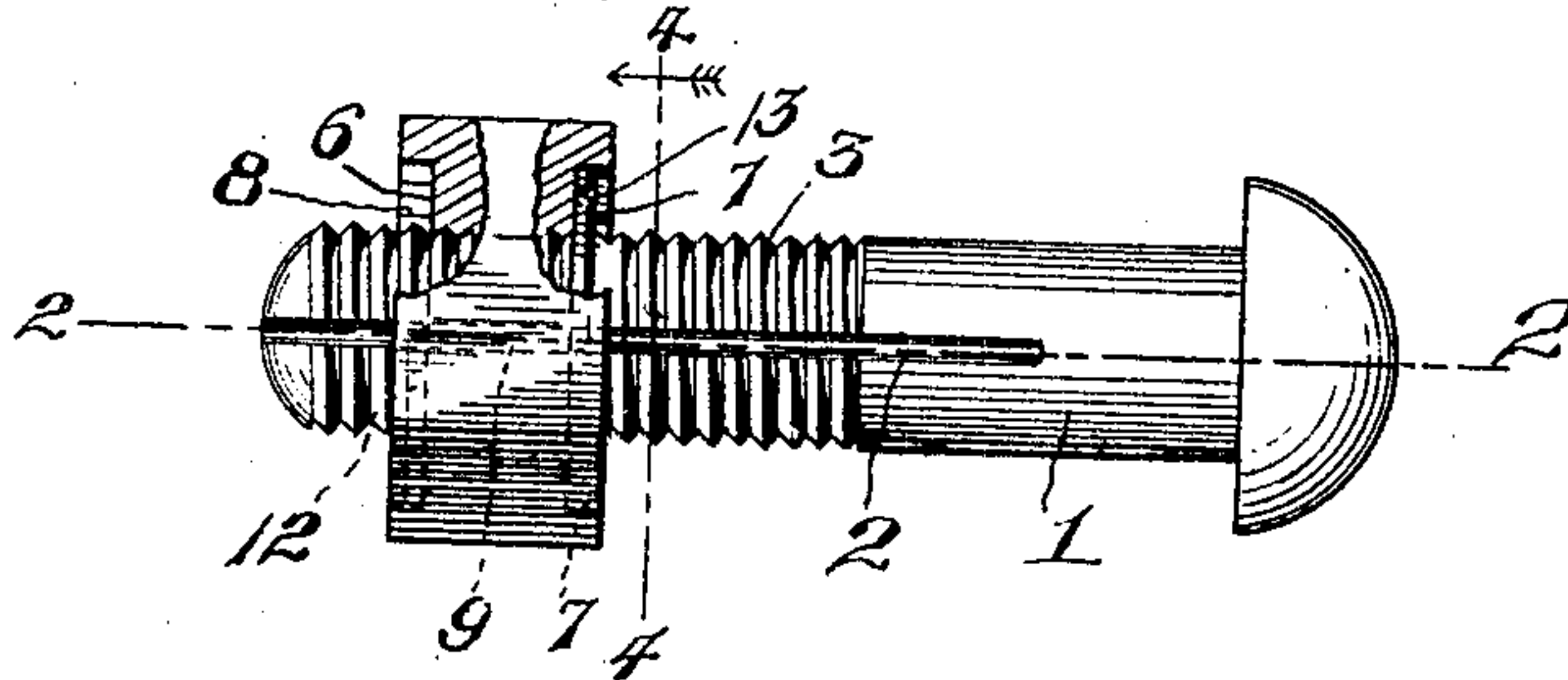


Fig. 2.

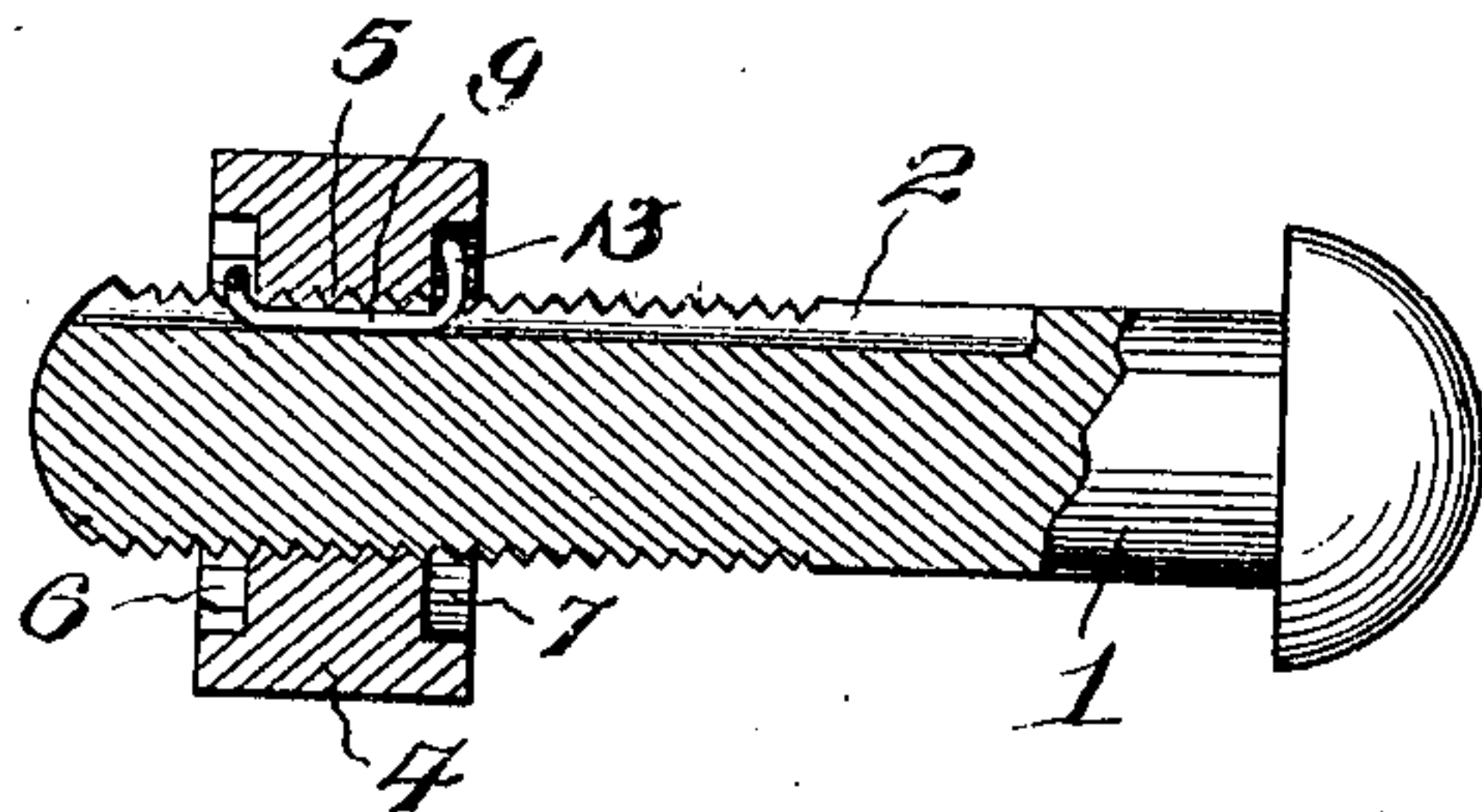


Fig. 3.

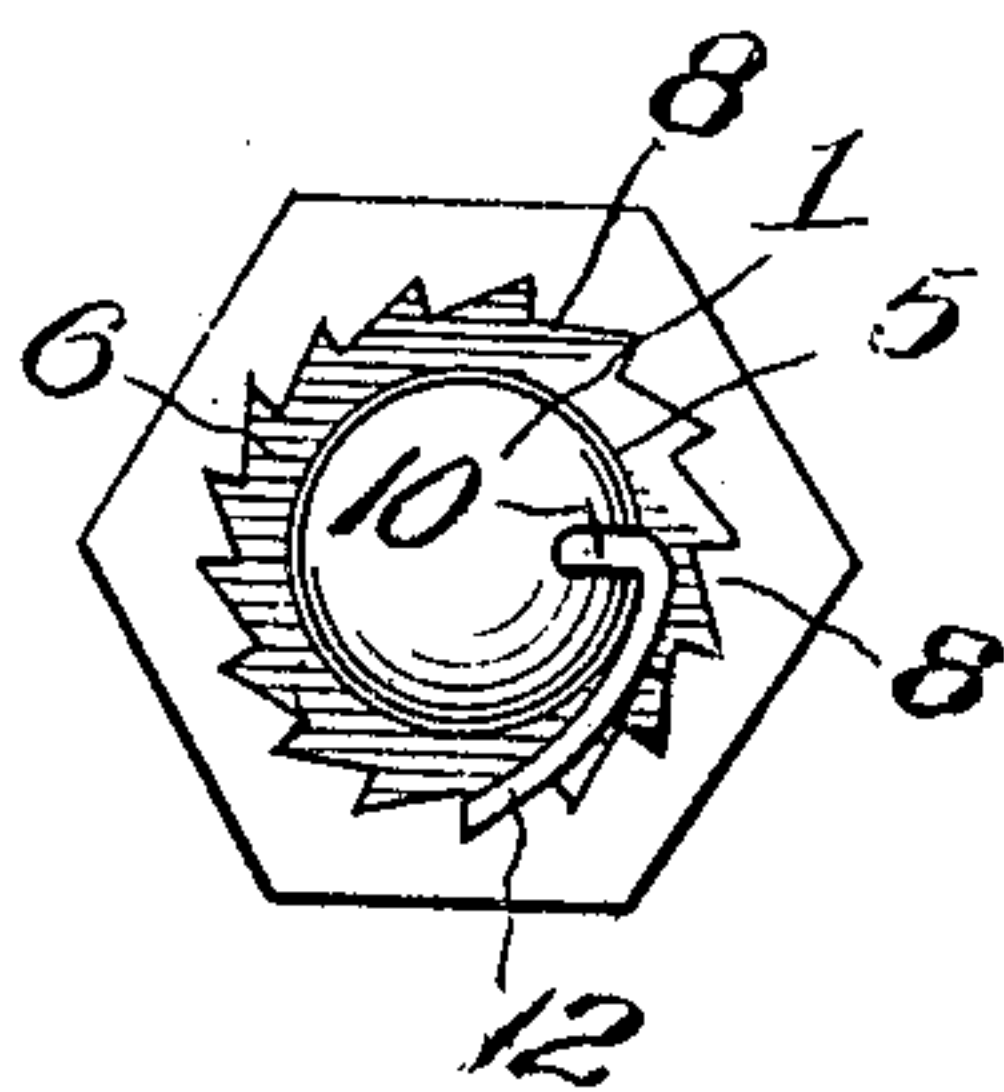


Fig. 4.

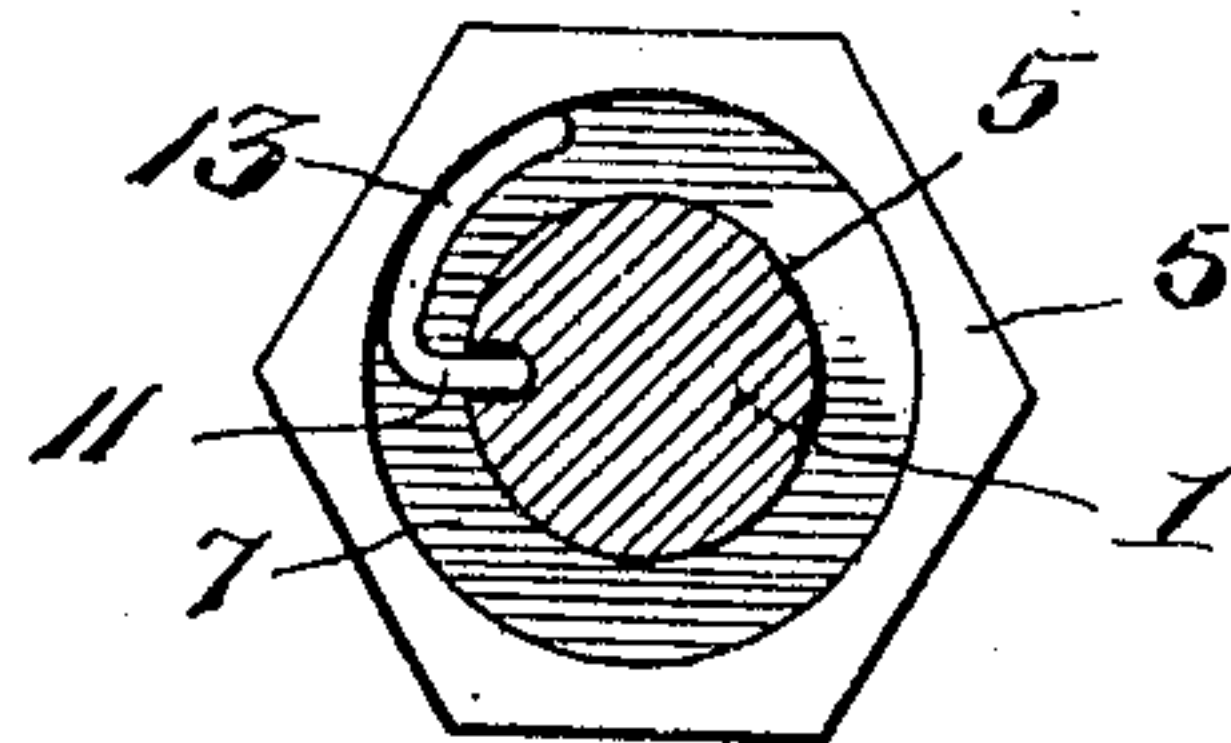
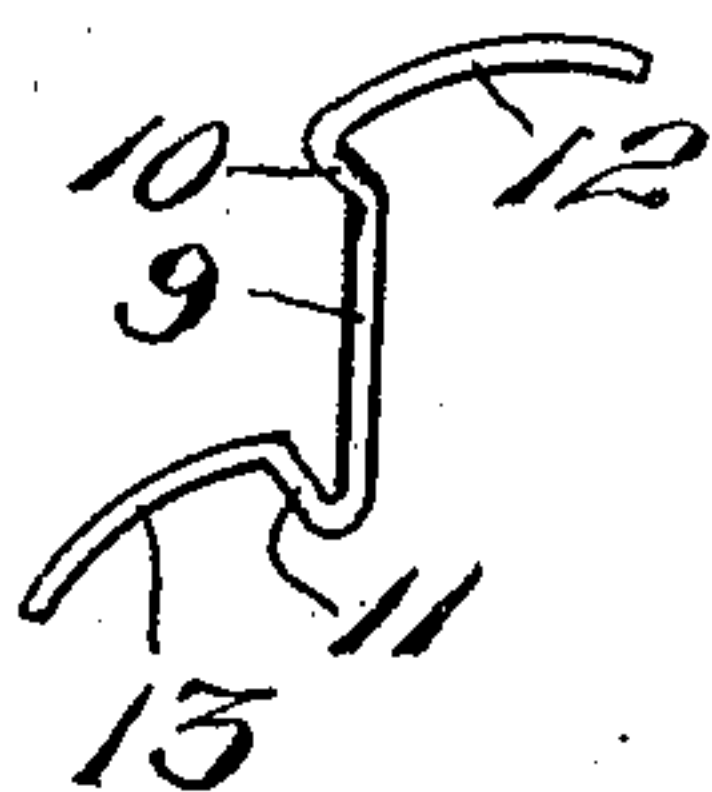


Fig. 5.



Witnesses

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NUT-LOCK.

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To all whom it may concern:

Be it known that I, CHARLES SCHRECK, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented new and useful Improvements in Nut-Locks, of which the following is a specification.

This invention relates to nut locks, and it has for its object to provide simple and improved means whereby a nut will be retained securely in position upon the bolt to which it is applied without danger of working loose, by the rattling of the parts to which the bolt is applied, or from other causes.

Further objects of the invention are to simplify and improve the construction and operation of this class of devices.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing, Figure 1 is a side elevation of a bolt and nut embodying the invention, partly in section. Fig. 2 is a longitudinal sectional view taken on the plane indicated by the line 2—2 in Fig. 1. Fig. 3 is an end view, showing the exterior side or face of the nut. Fig. 4 is a sectional view taken on the plane indicated by the line 4—4 in Fig. 1, and exposing the inner side or face of the nut. Fig. 5 is a perspective detail view of the locking member.

Corresponding parts in the several figures are denoted by like characters of reference.

The bolt 1 to which the invention is applied is provided with a longitudinal groove 2 extending through the entire length of its threaded portion 3, said groove being preferably straight and parallel to the axis of the bolt.

The nut 4 is provided with the usual bolt engaging interiorly threaded aperture 5, and said nut is provided in its opposite sides or faces with annular recesses 6—7. The cir-

cumferential wall of the recess 6 in the outer side or face of the nut is provided with ratchet teeth 8.

The locking member of the improved nut lock consists of a spring comprising a body portion 9 provided at the ends thereof with laterally extending arms 10 and 11 which are preferably disposed parallel to each other, and bent or otherwise formed at approximately right angles with the body portion 9. Said arms 10 and 11 are provided with terminal tongues 12 and 13, said tongues being preferably extended in opposite directions from the arms 10 and 11. One of said tongues, 12, which is associated with the arm 10, constitutes a spring pawl which is adapted for engagement with a ratchet 8 upon the wall of the recess 6 within which the said tongue or spring pawl is accommodated; the tongue 13, which is accommodated within the recess 7 at the inner end of the nut, abuts upon the wall of said recess and constitutes an abutting member to prevent rotation of the body 9 of the spring.

The body of the locking member is made of a length approximately equal to the length of the nut with which the locking member may be readily associated before adjusting the nut upon the bolt; in the act of applying the nut to the bolt, the body 9 of the locking member is guided into the longitudinal groove 2, and the locking member will thus be retained in position by the tongues 12 and 13 which engage the opposite ends or faces of the nut, the tongue or pawl 12 being held in engagement with the ratchet teeth 8 owing to the relative disposition of the tongues 12 and 13 which are bent or formed in such a manner that the extremities of said tongues will resiliently engage the walls of the recesses 6—7. As the nut is rotated in the act of tightening it upon the bolt the locking member will be slid or moved in an inward direction in the groove 2 of the bolt, and the spring tongue or pawl 12 will be in constant engagement with the ratchet teeth 8 so that, in any position of the nut, it will be held against rotation in a reverse direction. Should it be desired to remove the nut, the spring tongue or pawl 12 may be lifted out of the recess 6 and supported upon the edge of the nut, which latter may then be conveniently unscrewed and detached from the bolt. If the locking member, in the act of removing the nut, should be distorted, it may be readily sprung or bent back into shape; or a

new locking member may be supplied at a very trifling expense.

This improved nut locking device is extremely simple, easily applied and effective in operation; and it may be supplied at a very trifling expense.

Having thus fully described the invention, what I claim as new is:—

1. The combination with a bolt having a longitudinal groove, of a nut having annular recesses at the opposite ends thereof, one of said recesses having a toothed wall, and a locking member consisting of a torsion spring provided at the ends thereof with resilient tongues lying within the recesses at the ends of the nut, and resiliently engaging the walls of said recesses.

2. A longitudinally grooved bolt, a nut engaging the bolt and having annular recesses at the ends thereof, and a locking member comprising a body slidably engag-

ing the groove of the bolt and provided at the ends thereof with arms having oppositely extending terminal springs engaging the walls of the recesses.

3. A longitudinally grooved bolt, a nut engaging said bolt and provided at the ends thereof with annular recesses, one of which is provided with a circumferential series of ratchet teeth, and a locking member comprising a body slidably engaging the groove in the bolt and provided with laterally extending arms having terminal oppositely extending tongues engaging the walls of the recesses in the ends of the nut.

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

CHARLES SCHRECK.

Witnesses:

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