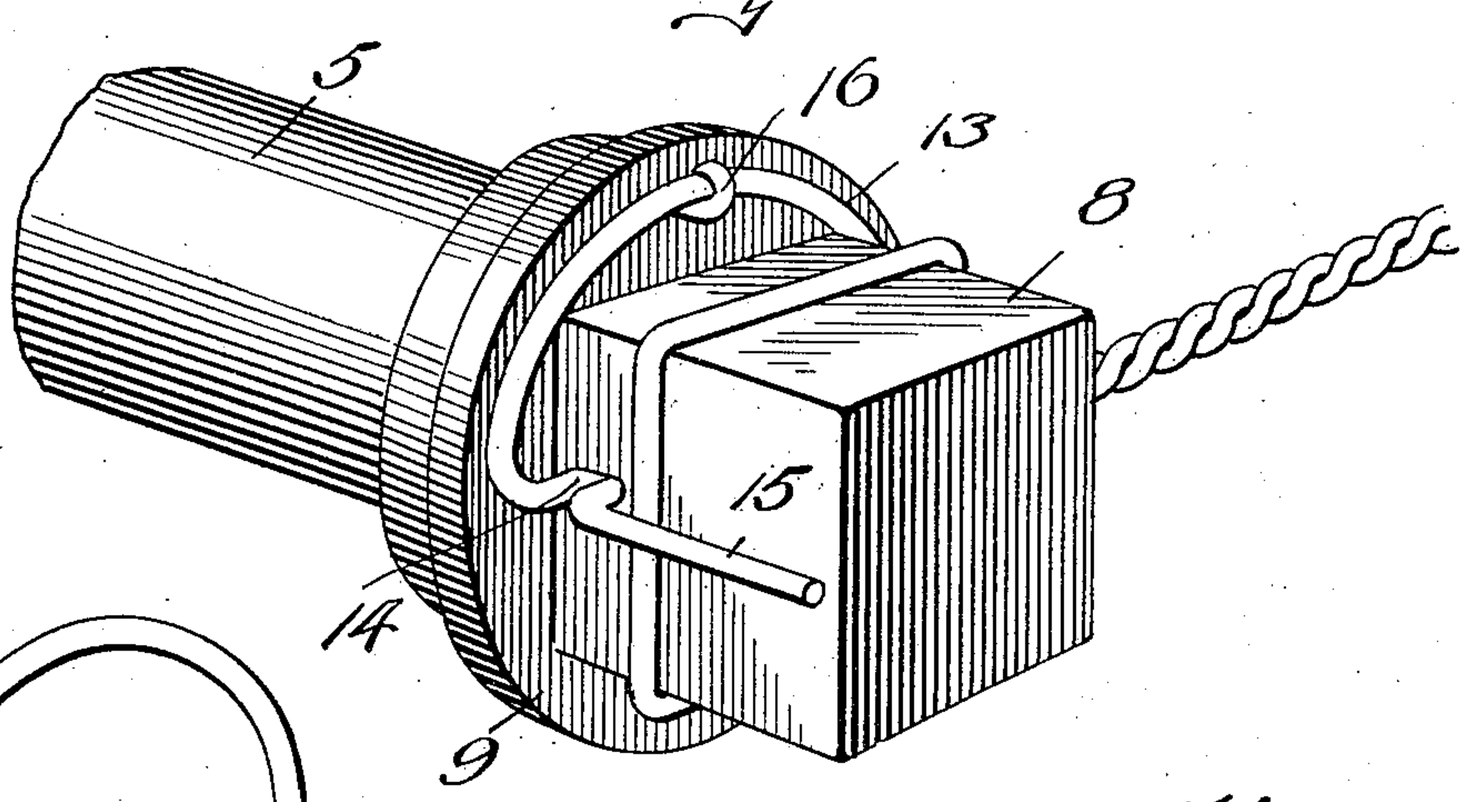
J. COVERT.

NUT LOCK.

APPLICATION FILED APR. 15, 1910.

999,632. **Patented Aug. 1, 1911.**

Fig. 1.



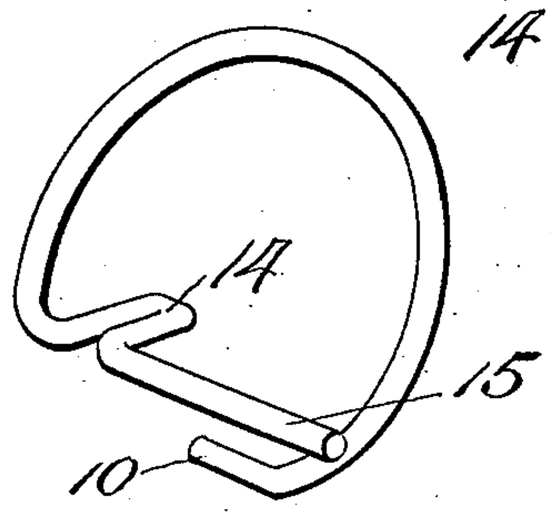


Fig. 4.

Fig. 3.

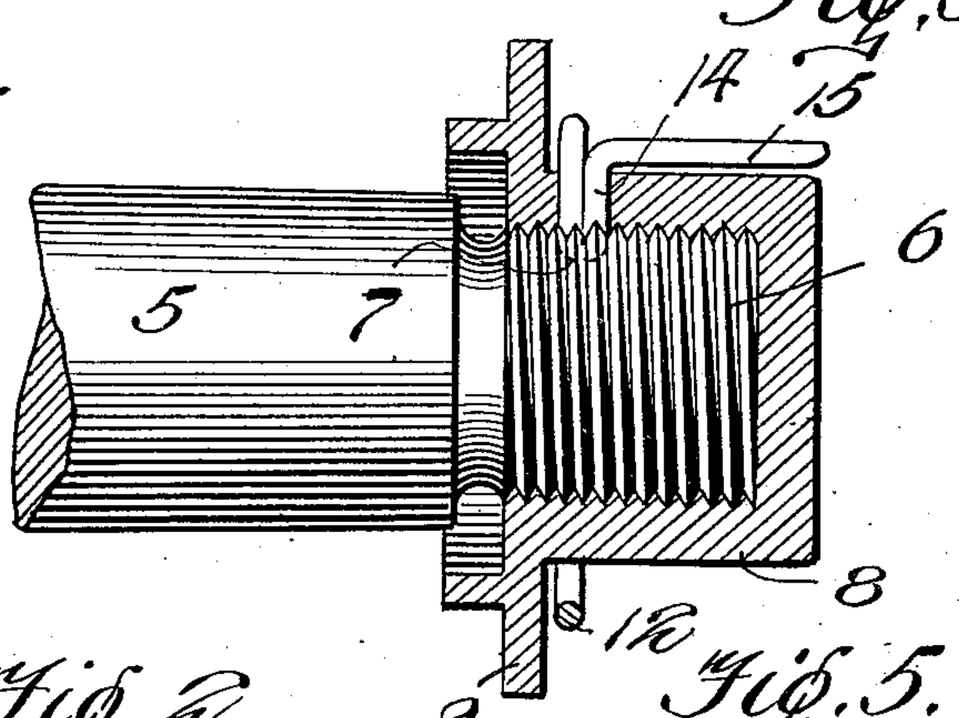


Fig. 2.

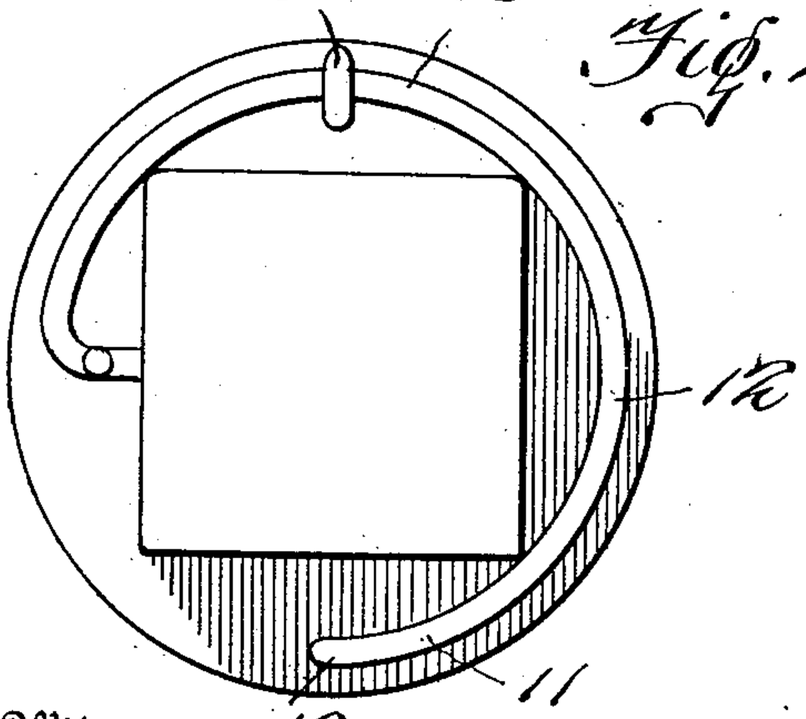
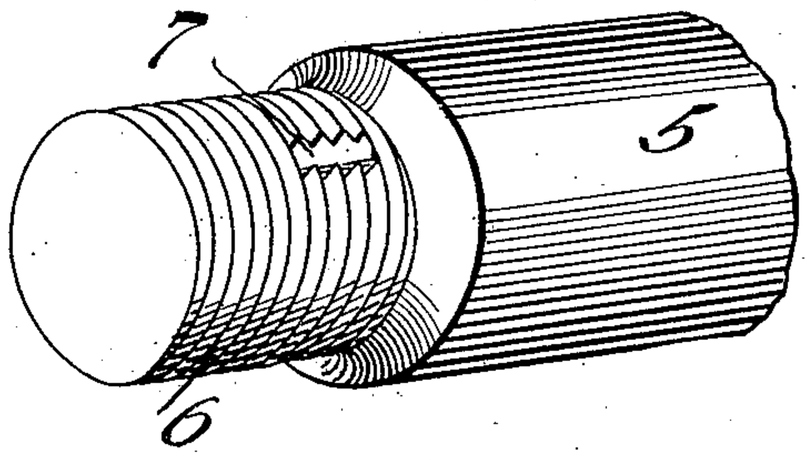


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

JASPER COVERT, OF SLIPPERY ROCK, PENNSYLVANIA.

NUT-LOCK.

999,632. Specification of Letters Patent. **Patented Aug. 1, 1911.**

Application filed April 15, 1910. Serial No. 555,739.

To all whom it may concern:

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

This invention relates to improvements in nut locks and more particularly to the type employed for securing axle nuts against accidental movement.

One object of the invention is the provision of a device that may be readily applied to most forms of axle nuts now in use without necessitating any expensive alterations in the nut and axle.

Another object is the provision of a lock adapted to be released from engagement with the axle by means of a wrench, the said lock being constructed to engage with the wrench and bind on the same so that after the nut is removed from the axle the danger of the same falling from the wrench and onto the surface of the ground will be positively prevented.

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

In the accompanying drawings, forming a part of the specification;—Figure 1 is a perspective of one end portion of an axle and its nut showing my improved device applied thereto and a nut wrench engaging with the nut and held thereon by the lock. Fig. 2 is a plan view of the nut and the lock. Fig. 3 is a fragment of the spindle in side elevation with the nut thereon in longitudinal section and showing the locking device applied to the nut and partly in section and in engagement with the spindle. Fig. 4 is a detail perspective of a lock. Fig. 5 is a detail perspective of the threaded end of the axle with the nut removed.

Similar numerals of reference are employed to designate corresponding parts throughout.

The axle is designated by the numeral 5 and at one end terminates in a reduced exteriorly threaded boss 6, the latter having a medially disposed socket 7.

The nut herein shown is of a conventional type having a square wrench engaging portion 8 having an interiorly threaded bore and terminating at one end in an annular flange 9. While I have shown the nut to have a square wrench engaging portion, still it must be understood that I am not to be limited to this specific form of nut, since it will be understood from what will appear later how the device about to be described might be equally as well applied to hexagonal or other forms of nuts employed on vehicle axles.

The lock forming the subject matter of the present invention is preferably formed of a single piece of stout steel wire or its equivalent one terminal of which is anchored in the outer face of the flange 9, as shown at 10. The portion of the lock adjacent to the anchored terminal is bent at right angles to bear on the outer face of the flange 10 as shown at 11, and thence bent over two faces of the wrench engaging portion, as shown at 12 and 13, and further bent over a portion of another face of the wrench engaging portion, whence it is doubled or bent upon itself to provide a keeper 14, this keeper 14 extending through a radial opening formed in one face of the wrench engaging portion and communicating with the interiorly threaded bore of the nut, said keeper extending well into the threaded bore, as shown in the drawings. The terminal of the rebent portion is then bent upwardly and at right angles as shown at 15 and extending to a point a trifle in advance of the outer end of the nut and spaced for a slight distance from the adjacent face of the wrench engaging portion. The outer end of the terminal 15 is curved away from the nut so as to facilitate the manipulation of the wrench when associating the same with the nut. The medial portion of the lock or that overlying the flange 9 is held against outward movement by means of a hook 16 fixedly secured to the outer face of the flange and bearing on the lock.

With this construction it will be manifest

when a wrench such as is shown in Fig. 1, is placed over the wrench engaging portion 8 with one side between the bent portion 15 and adjacent face of the wrench engaging portion that the keeper will be moved outwardly so that when the threads of the bore engage with those of the axle, the nut may be screwed onto the axle, and when the wrench is disengaged therefrom, the lock by its own resiliency will move into engagement with the socket 7. It will be further observed when it is desired to disengage the nut that wrenches will be placed over the wrench engaging portion 8, as just described, whereupon the keeper will be moved from engagement with the socket and the nut permitted to be unscrewed, and when disengagement between the nut and axle is effected, owing to the resiliency of the lock, the nut will be prevented from accidentally falling from engagement with the wrench.

The keeper 14 hereinbefore referred to is positioned with respect to the nut that it operates as a stop so as to limit the inward sliding adjustment of the wrench member and operating on its contact with the wrench member to indicate the required adjustment of the said wrench to cause the said keeper to move out of engagement with the socket 7.

I claim:—

The combination with a bolt having a longitudinally disposed recess, a nut threaded on the bolt and having a recess adapted to register with the bolt recess, a spring wire locking member mounted on the nut and curved to embrace the major portion thereof and provided with an upwardly bent terminal disposed longitudinally of the nut, said terminal being provided with a U shaped offset located near the bent portion of the locking member and adapted to enter the recesses of the nut and bolt, the free end of the locking member being disposed outwardly of the nut for manipulation and having a beveled tip.

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

JASPER COVERT.

Witnesses:
E. E. Douglass,
J. W. Boyd.