

W. A. WILT.

NUT LOCK.

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969,434.

Patented Sept. 6, 1910.

Fig 1

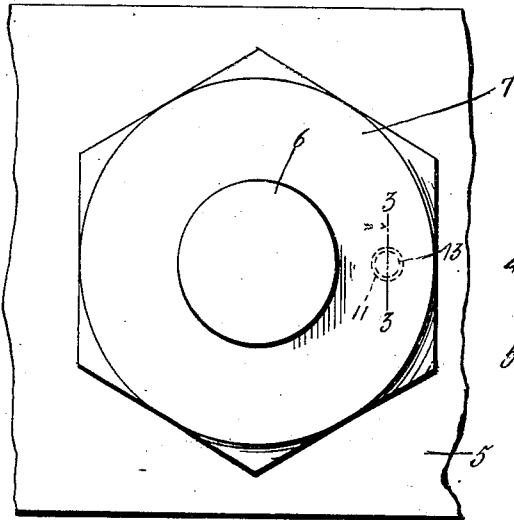


Fig 2

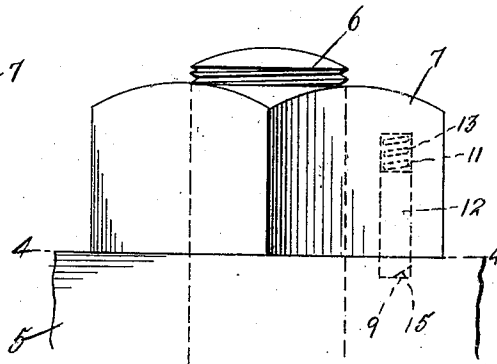


Fig 3

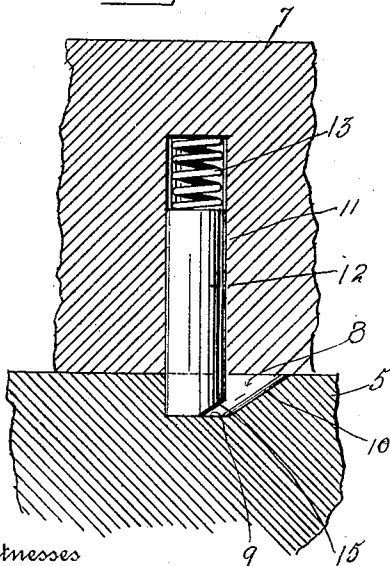
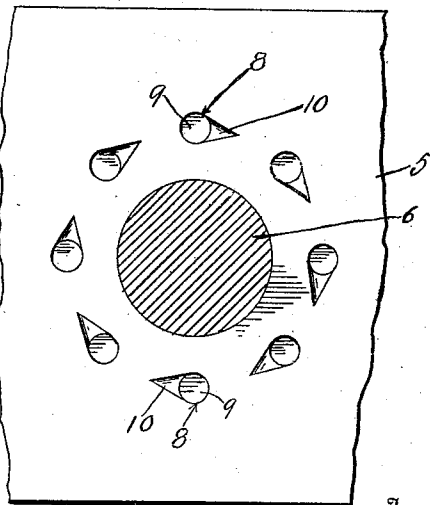


Fig 4



Witnesses

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NUT-LOCK.

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To all whom it may concern:

Be it known that I, WILLIAM A. WILT, a citizen of the United States, residing at Tyrone, in the county of Blair, State of Pennsylvania, 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.

The invention relates to a nut lock and more particularly to the class of self-locking nuts.

The invention has for one of its objects to simplify and improve the construction and to increase efficiency and utility of devices of this character.

With this and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described illustrated in the accompanying drawings disclosing the preferred form of embodiment of the invention and pointed out in the claims hereunto appended.

In the drawings:—Figure 1 is a plan view of a body having the invention applied thereto. Fig. 2 is a side elevation thereof. Fig. 3 is an enlarged sectional detail, the section being taken on the line 3—3 of Fig. 1. Fig. 4 is a plan view of the body portion with the bolt in section, the latter being taken on the line 4—4 of Fig. 2.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings by numerals 5 designates a conventional body through which a bolt 6 is passed, the bolt being provided with a nut 7 of the usual form.

The improved device as will be hereinafter more fully described may be applied to any structure with which a bolt is usually employed, therefore it is to be understood that the invention is not limited to the structure shown and herein described.

The body 5 is provided with a suitable aperture for the bolt 6 and formed in the outer face of said body circumferentially of this aperture through which the said bolt is passed are a series of recesses 8, each recess having a flat bottom 9 and with one side inclined as at 10 the inclined sides of the recesses being preferably extended in the

same direction or in other words from the same side of the recesses as shown. Any required number of the recesses may be employed as may be desired.

The improved device may be applied to any of the various forms of nuts, but for the purpose of illustration is shown applied to an ordinary hexagonal-shaped nut, each nut being provided with a socket 11 opening through its inner face. Slidably fitted within the socket 11 is a pin 12 the same being preferably constructed from relatively soft metal, that is to say metal that is considerably softer than the metal from which the body 5 and the nut 7 are made. Interposed between the inner end of the pin 12 and the inner closed end of the socket 11 is an expansion spring 13 operating to maintain the pin yieldably in its projected position beyond the inner face of the nut. The pin 12 is designed to enter one of the recesses 8 and the outer end of this pin is formed with a beveled surface 15 the extent of which is considerably less than the depth of the recesses 8 so that should the pin become turned in the socket 11 there will be absolutely no possibility of the said pin retreating within the said socket whereby the nut would become accidentally loosened on the bolt. The inclined sides of the recesses as before stated all extend in one direction and toward the direction in which the nut is moved to tighten it so that when the nut is being turned "home" by the wrench a pin will be compressed into its socket in the nut by the inclined sides of the recesses one after the other, and when the nut is finally turned "home" the pin will remain in the last recess with which it is engaged thus effectually preventing retrograde movement of the nut.

The recesses 8 are so arranged in the body 5 as to be entirely concealed by the nut 7 when engaged with the bolt 6 and also the socket 11 is so disposed in the said nut to register with any one of the recesses 8 and furthermore this socket being disposed a distance from the periphery of the nut it will hold the pin 12 in such position as to not permit any tool to be inserted between the inner face of the nut and the adjacent face of the body to effect the releasing of the pin from its engagement with any one of the recesses.

When it is desired to remove the nut

from the bolt 6 it can be effected by turning the said nut with a wrench or other tool and in doing so the metal pin being of softer metal than either the body or nut the
5 lower end of the pin will sheer off thereby permitting the said nut to be loosened and detached from the bolt.

What is claimed is:—

1. In a nut lock a body having a bolt re-
10 ceiving aperture and a plurality of recesses spaced apart and contiguous said aperture, said recesses each having a flat bottom end with one side inclined, a nut adapted to en-
15 gage the bolt and provided with a socket in its inner face, and a spring controlled pin arranged within the socket and having a beveled end engaging one of the recesses, the said beveled portion of the end of the pin

being of less depth than the depth of the recess. 20

2. The combination with a body having a bolt receiving aperture and a plurality of recesses circumscribing the said bolt receiving aperture, of a bolt passed through the aperture and a nut engageable with said bolt 25 and having a locking pin engageable with one of the said recesses in the body, the said pin being of softer material than either the nut or body, substantially as described.

In testimony whereof, I affix my signature, 30 in presence of two witnesses.

WILLIAM A. WILT.

Witnesses:

JOS. H. BLACKWOOD,
GEO. H. CHANDLER.