W. H. FINE.

AUTOMATIC LOCK NUT.

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Inventor

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AUTOMATIC LOCK-NUT.

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To all whom it may concern:

Be it known that I, WILLIAM H. FINE, a citizen of the United States, residing at Goldfield, in the county of Esmeralda and State of Nevada, have invented certain new and useful Improvements in Automatic Lock-Nuts, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain improvements in lock nuts and has relation more particularly to a device of this general character embodying a distorted nut and it is an object of the invention to provide a novel and improved nut having one end portion partially separated from the body of the nut and wherein said separated portion is substantially concavo-convex in form.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved lock nuts wherein certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be better understood I will now proceed to describe the same with reference to the accompanying drawings wherein;

Figure 1 is a view in elevation of a nut constructed in accordance with an embodiment of my invention;

Figure 2 is a sectional view taken through the nut as herein disclosed;

Figure 3 is a sectional view taken through the nut as herein embodied and on a line at right angles to the line of section of Fig. 2; and

Figure 4 is a view in perspective of my improved nut as herein disclosed.

As disclosed in the accompanying drawings 1 denotes the body portion proper of my improved nut and which has produced in opposite sides thereof and in close proximity to an end, the diametrically opposed and transversely directed slots 2 affording a thinned end portion 3 integrally connected with the body portion 1 of the nut through the medium of the diametrically opposed necks 4.

The thinned end portion 3 is then subjected to pressure to render the thinned end portion 3 substantially concavo-convex with the opposed marginal portions of the body 1 and the thinned portion 3 in contact one with the other. This formation of the thinned portion 3 serves to twist or warp the threads of the thinned portion 3 and also stretches the metal in the thinned portion 3 so that it cannot be reformed and again become permanently set in its initial position or in the position before the thinned portion 3 was concaved. This formation of the thinned portion 3 also reduces the diameter of the bore through the thinned portion on a line at right angles to the line occupied by the necks 4.

When my improved nut is applied to the threaded shank of a bolt the thinned portion 3 is slightly raised as the bolt engages within said thinned portion 3 and results in a powerful vise lock like grip or pressure on the bolt threads which is assured by the twisted or warped threads within the thinned portion 3 and by the shortened diameter of the bore of said portion 3. While the thinned portion 3 is slightly raised and engaged by a bolt it is to be stated that it will not be raised up or reformed to its initial position. In view of this the nut can be repeatedly applied with an assurance of requisite gripping action upon the bolt.

From the foregoing description, it is thought to be obvious that a lock nut constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated and it will also be obvious that my invention is susceptible of some change and modification without materially departing from the appearance and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

A nut having diametrically opposed trans-
verse slots formed therein adjacent an end thereof to afford a relatively thin separated end portion, said thinned end portion being substantially concavo-convex and the threads of the separated portion of the nut being twisted. In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM H. FINE.

Witnesses:

H. F. Wood,

A. M. JOHNSON.