No. 704,162. Patented July 8, 1902.

P. J. WILSON.

LOCK NUT.

(Application filed Feb. 21, 1901.)

(No Model.)

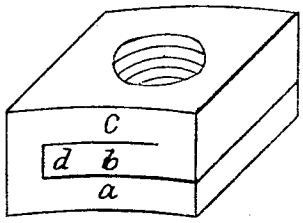


Fig. 1.

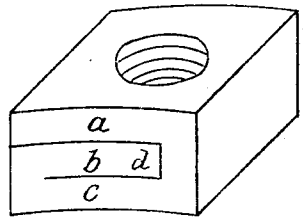


Fig. 3.

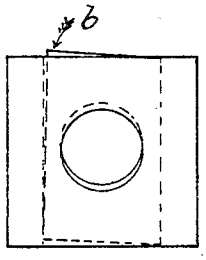


Fig. 2.

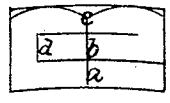


Fig. 5.

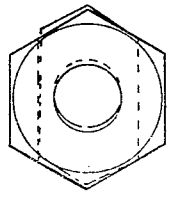


Fig. 6.

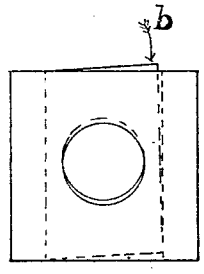


Fig. 4.

Witnesses

Inv. L. Skinner

L. Jacques

Inventor

Peter Joseph Wilson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PETER JOSEPH WILSON, OF SHEFFIELD, ENGLAND.

LOCK-NUT.

SPECIFICATION forming part of Letters Patent No. 704,162, dated July 8, 1902.

Application filed February 21, 1901. Serial No. 48,327. (No model.)

To all whom it may concern:

Be it known that I, PETER JOSEPH WILSON, engineer, a citizen of Great Britain, residing at 11 Gatefield road, Sheffield, in the county of York, England, have invented a new and useful Appliance in the Form of a Lock-Nut, (for which I have obtained provisional protection in Great Britain, No. 10,597, bearing date June 11, 1900;) 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 object of my invention is to construct a nut so that when placed upon a bolt it shall not become loose or unscrewed by means of vibration or other such cause.

Figure 1 shows the bar of metal folded in layers *c b a*, all integral, and the point *d* on fold *b* is where the pressure of displacement most conveniently takes place. Fig. 2 is a plan of Fig. 1, showing the displacement of center fold *b*. Fig. 3 is similar to Fig. 1 with the exception that the folding as compared with the hollowing is inverse to Fig. 1. Fig. 4 is a plan of Fig. 3, showing the displacement of center fold *b*. Fig. 5 is an elevation of a hexagon nut folded similar to Fig. 1. Fig. 6 is a plan of Fig. 5, showing displacement of center fold *b*.

The particular character of the nut, due to its peculiar construction of being folded and each partial lamination or fold being hollowed, in combination with its cross-action, displacement in its final tightening is caused to move within itself in such a manner that the tremendous grip already existing (due to the slight displacement of the center or other fold) is very greatly increased when the flattening or partial flattening of the hollow takes place on being screwed tight up to its work.

In constructing the nut I use bar iron or steel or other suitable metal of sufficient length to fold and of the proper width, so that it will either form a square nut when folded, as shown at Figs. 1, 2, 3, and 4, or a hexagon nut, as shown at Figs. 5 and 6. I then fold the bar as shown in Figs. 1 and 3, after which I punch or drill and tap the hole, after which I displace the center fold by pressure at a point *d*. I then hollow the now formed nut; but I can also hollow it before the displacement instead of after. I only displace the fold equal to the depth of about half the thread, and the said displacement may take place from either side of the nut with equally good effect. I also harden and temper the nut, if found necessary.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The herein-described improved nut formed of a blank of a spring metal, and consisting of inner, middle and outer layers formed integral, the outer layer being sufficiently long to fold over the top, beyond the end and under the middle layer, thus forming the outer convex and inner concave layers, the length of the middle layer being shorter by the thickness of the metal than the inner and outer layers, the displacing of the middle layer or fold about half the depth of the thread of the nut, so that one edge stands within, and the other without the inner and outer folds, or layers, substantially as specified.

2. The herein-described improved nut formed of a blank of a spring metal and consisting of inner, middle and outer layers formed integral, the outer layer being sufficiently long to fold, under, beyond the end, and over the top of the middle layer, thus forming the inner concave and outer convex layers, the middle layer being shorter by the thickness of the metal than the inner and outer layers, the displacing of the middle layer or fold about half the depth of the thread of the nut, so that one edge stands within, and the other without the inner and outer folds or layers, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER JOSEPH WILSON.

In presence of—

M. F. KAVANAGH,

FRANK M. CLARK.