

T. G. CONWAY, JR.
NUT LOCK.
APPLICATION FILED APR. 30, 1920.

1,362,675.

Patented Dec. 21, 1920.

Fig. 1.

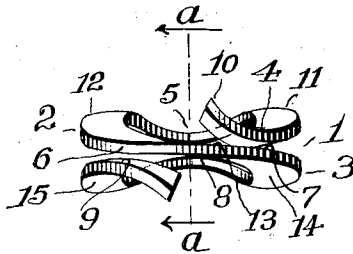


Fig. 2.

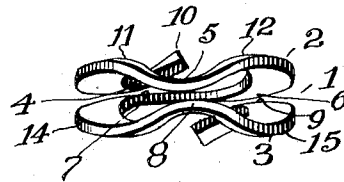


Fig. 3.

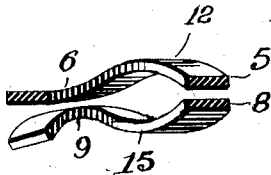
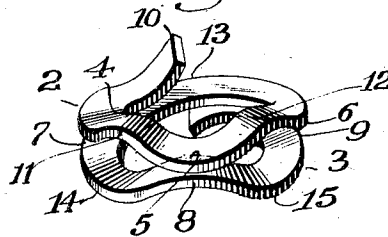


Fig. 4.



Inventor

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By

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UNITED STATES PATENT OFFICE.

THOMAS G. CONWAY, JR., OF SOUTH ORANGE, NEW JERSEY, ASSIGNOR TO THE
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NUT-LOCK.

1,362,675.

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To all whom it may concern:

Be it known that I, THOMAS G. CONWAY, Jr., a citizen of the United States, residing at South Orange, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Nut-Locks; and I do 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.

My invention has reference to nut locks, more particularly of the character shown and described in U. S. Letters Patent No. 1,065,149, dated June 17, 1913, and No. 1,135,597, dated April 13, 1915, both issued to Cyrus H. Loutrel, and No. 1,135,284, issued to John H. Horn, April 13, 1915.

The object of the present invention is to provide a nut lock formed by a segment of a helical coil, which shall offer greater resistance when in use than any of the structures noted in the patents aforesaid.

In all the nut locks shown in said patents there is a plurality of high points and a plurality of low points that are formed by twisting, or otherwise forcing, certain portions of the helix out of line with the normal surface of the latter, this being the sole feature which underlies the inventions set forth in these patents.

In certain instances it has been deemed desirable to provide nut locks whose powers of resistance shall exceed those of the devices noted in said patents, and since two similar nut locks, one upon the other, with or without an intervening plate or washer, would not answer the purpose, I constructed the present nut lock formed of a helical segment comprising a plurality of integral adjoined coils, preferably two in number, each coil having a plurality of alternating high and low points, formed by twisting or otherwise forcing portions of the helical coils out of line with the normal surface of the helix, in such manner that the low points of an upper coil shall approach the high points of a lower coil, it being immaterial whether these points are in actual contact or are spaced apart.

It has been ascertained that a nut lock formed as just described admirably answered to the demand for extra resistance above noted, and in order that this peculiar

construction may be clearly understood, attention is invited to the drawing which is a part of this application, and in which—

Figure 1 is a front edge elevation of my improvement;

Fig. 2 a rear edge view;

Fig. 3 a section at the line *a—*a** of Fig. 1, and

Fig. 4 a perspective view looking at the rear of my improvement.

1 denotes the helical segment as a generality.

2, 3, are the upper and lower coils respectively, the upper coil having portions of its surface forced out of line with the normal surface of the helix to provide low points 4, 5, and 6, while the lower coil has portions of its surface that are forced out of line with the normal surface of the helix to provide high points 7, 8, and 9.

These low points 4, 5, 6, and high points 7, 8, 9, respectively approach or extend toward each other, while the high points 10, 11, and 12, of the upper coil and the low points 13, 14, and 15, of the lower coil are respectively widely separated from each other, as clearly shown in the drawing.

It will therefore be evident that when the structure is utilized, the points 4, 5, 6, will first be brought into compression contact with the parts 7, 8, 9, and that this contact will greatly stiffen the nut lock as a whole, since it renders more difficult the forcing toward each other of the high points 10, 11, 12, and the low points 13, 14, 15. In fact, the compression force, which tends to straighten out the coils to restore the normal helical surface, meets with a tremendous resistance from every location throughout the entire segment, which is due solely to the opposing of low and high points of the coils, and the alternately disposed and widely diverging high and low points, as hereinbefore fully set forth.

I claim—

1. A nut lock, consisting in general form of a segment of a helix and comprising a plurality of coils, each coil having certain portions bent out of line with the normal helical surface so as to form alternate low and high points, the low points of an upper coil extending toward the high points of an adjoining lower coil.

2. A nut lock which is a segment of a

helix and comprises a plurality of integral
adjoined coils, each coil having alternate
high points and low points formed by bend-
ing or twisting certain portions out of line
5 with the normal surface of the helix, the
low points of one coil being opposed in near
relation to the high points of an adjoining
coil while the alternate high and low points

of said coils are opposite each other but
widely separated. 10

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

THOMAS G. CONWAY, JR.

Witnesses:

JAMES D. COWAN,
C. O. COUTEEL.