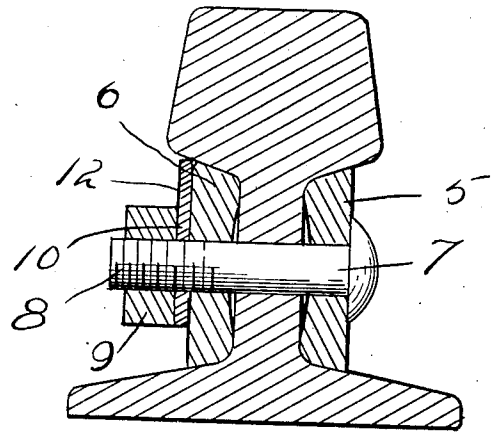
No. 892,834. PATENTED JULY 7, 1908.

J. F. HUFFMAN.

NUT LOCK.

APPLICATION FILED JULY 17, 1907.

Fig. 1.



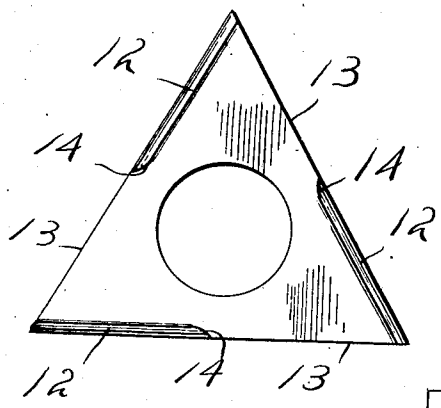


Fig. 2

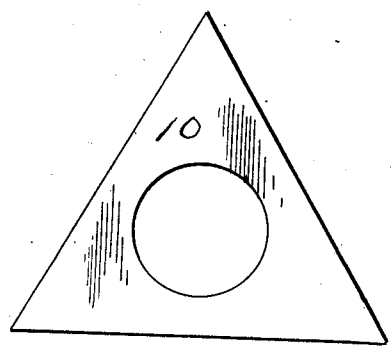


Fig. 4

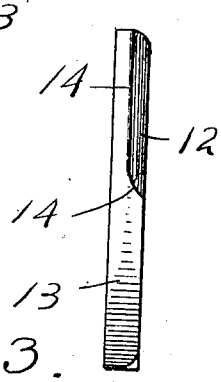


Fig. 3.

Witnesses

J. C. Simpson.

E. J. Oertel

Inventor

James F. Huffman.

By Macdonald & Macdonald

Attorneys

UNITED STATES PATENT OFFICE.

JAMES F. HUFFMAN, OF MEMPHIS, TENNESSEE.

NUT-LOCK.

No. 892,834. Specification of Letters Patent. Patented July 7, 1908.

Application filed July 17, 1907. Serial No. 384,159.

To all whom it may concern:

Be it known that I, JAMES F. HUFFMAN, a citizen of the United States, residing at Memphis, in the county of Shelby, State of Tennessee, 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 present invention has reference to nut-locks and it aims to provide an improved detaining plate, in the nature of a washer, adapted to be mounted upon the threaded end of a bolt, to prevent the nut from rotating or backing off the bolt under the jarring of the machinery in motion, the device being particularly adapted for use in connection with rail-joints.

To this end the invention consists in the provision of a metal detaining plate or washer in the form of an equilateral triangle, the front or outer face of which has one half of each edge beveled or rounded, to permit the nut to be readily tightened thereagainst without having its under face injured, while the remaining half of each of said edges is squared, so as to catch against the adjacent square edges of the nut, for preventing any backward rotation thereof.

The invention will be readily understood from a consideration of the following detailed description, and its embodiment is illustrated in the accompanying drawings, in which like parts are designated by corresponding reference numerals, in the several views.

Of the said drawings, Figure 1 is a sectional view of a rail-joint with the invention applied thereto, Fig. 2 is an enlarged front elevation of the washer, Fig. 3 is an edge view thereof, Fig. 4 is a rear elevation.

Referring more particularly to the drawings, the numerals 5 and 6 designate the fish-plates which are disposed on opposite sides of the track rails, one of which latter is shown, the fish-plates being bolted to the rails in the usual manner. The bolt 7 shown in Fig. 1 carries upon its threaded end 8 a nut 9 whose inner face is in bearing contact with the detaining plate or washer 10 interposed between said face and the outer face of the fish-plate 6, the washer having a central opening through which the bolt passes. This washer, as shown, in Figs. 2, 3, and 4, is in the form of an equilateral triangle each edge of the front face of which is rounded or beveled for half its length, as indicated by the reference numeral 12, the remaining portion 13 of each of said edges being squared; the arrangement is such that each of the three points is square shouldered along one side, and round shouldered upon the opposite side as shown in Fig. 2. The rounded portion of one edge lies opposite the squared portion of the adjacent edge. These triangular washers are of a predetermined size, so that the nut to be used therewith will overhang in all of its positions, a part of the washer. It will be noticed that the bevel edges are so positioned, that the inward traveling portion of the base of the nut in securing the same, will slide over the bevel edges 12. Now to dislodge or unscrew a firmly seated nut, every overhanging portion of the nut base must be sheared and forced against the sharp edges 13. Owing to the resilience of the nut and washer, the overhanging portion of the nut and the projecting parts of the washer, are not compressed to the same degree, as are those parts of the nut and washer in juxta-position, so that in unthreading the nut, the overhanging part of the nut, or the projecting part of the washer, must be compressed, or sheared off, before the nut can be removed. By this means the nut is held against accidental unseatment, as considerable power is necessary to unthread the same. The washer itself is held against backward rotation, by means of the projecting ends of the washer, which are of a length sufficient, so that one of the washer points will engage, either the under-surface of the tread, or the base of the rail.

The edges of the rear face of the washer are square, as shown in Fig. 4. The rounded portion of each of the front edges of the washer terminates at its inner end, or at the point where it joins the squared portion 13 thereof in a shoulder 14, as shown in Fig. 3.

In referring to Fig. 1, it will be noticed that the washer 10, above projects beyond the nut 9. As the nuts are in the form of a square or hexagon, and the washer is triangular, a part of the bottom of the nut will at all times project over a portion of the sharp edges of the washer. As the nut is secured it rides over the rounded edges 12 and finally as the nut is firmly seated upon the washer owing to the compressibility of the nut, these portions that shear over the sharp abrupt edges 13 spring back into their original condition and

so form a locking bur which must be sheared off before the nut can be turned backward to unseat the same.

What is claimed, is,

As a new article of manufacture, a flat nut-locking washer, cut in the form of an equilateral triangle having a central bolt opening, the edges upon one side being equally divided to provide a bevel and a square edge of equal length, said washer being of a predetermined size, so that a nut used therewith in being tightened will have its overhanging base engage the beveled portions in being tightened, and the square edge portions in backward rotation as set forth.

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

JAMES F. HUFFMAN.

Witnesses:
H. A. ROYNON,
J. P. KEIRAN.