No. 644,726. Patented Mar. 6, 1900.

B. F. VOLLER.

NUT LOCK.

(Application filed Dec. 14, 1899.)

(No Model.)

Fig. 1.

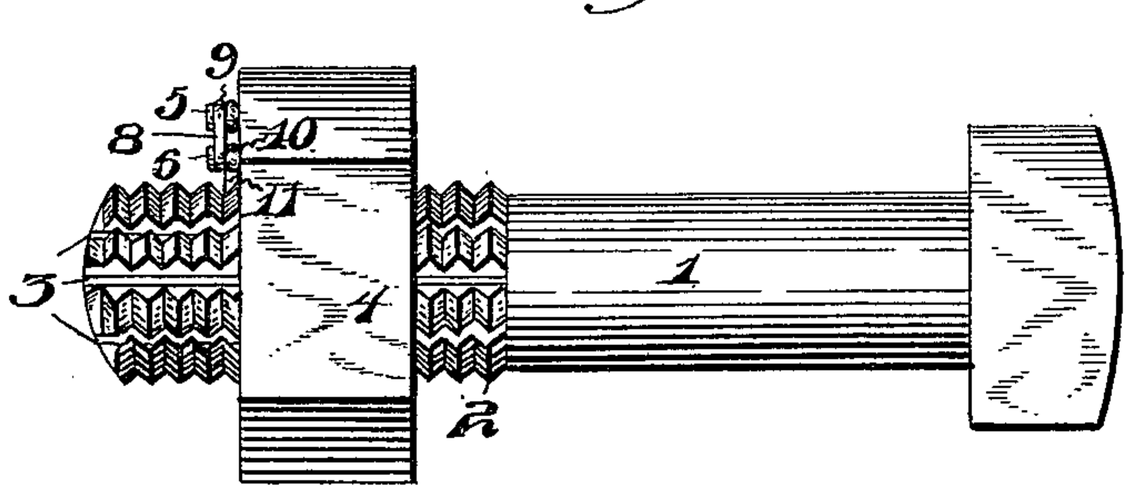


Fig. 2.

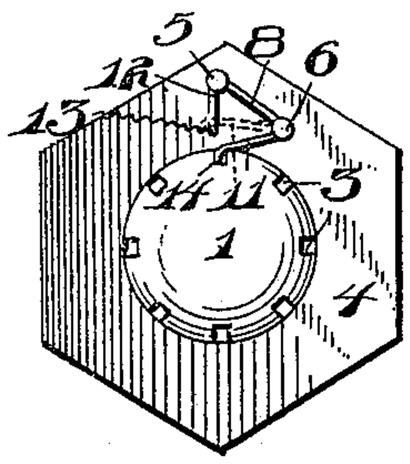


Fig. 3.

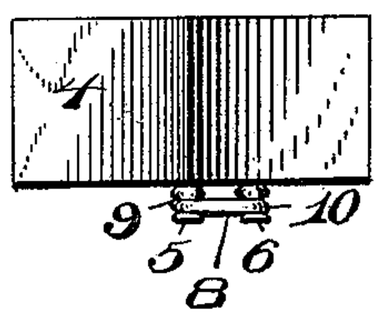


Fig. 4.

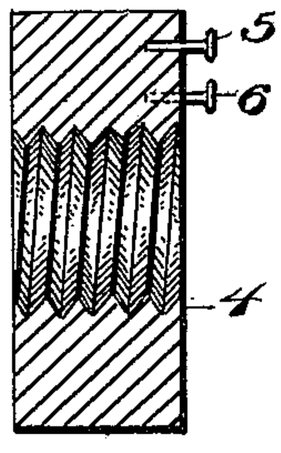
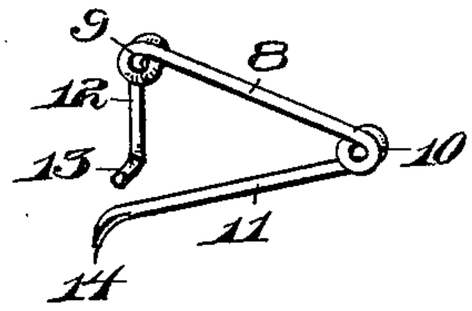


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMAN F. VOLLER, OF PITTSBURG, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 644,726, dated March 6, 1900.

Application filed December 14, 1899. Serial No. 740,340. (No model.)

To all whom it may concern:

Be it known that I, BENJAMAN F. VOLLER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in nut-locks, and has for one object the provision of novel means whereby the nut is securely locked to the bolt without any liability of the same becoming loose caused by the constant jar to which rails or machinery are subjected when in use.

The invention has for its further object to construct a device of this character that will be extremely simple in its construction, strong, durable, and highly efficient in its operation.

The invention further aims to provide a device of this kind that may be easily applied to any nut or bolt that is now on the market without materially changing the construction of either nut or bolt.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of the bolt and nut secured thereon with my improvement attached thereto. Fig. 2 is an end view of the same. Fig. 3 is a side elevation of the nut. Fig. 4 is a vertical sectional view of the nut. Fig. 5 is a detail view in perspective of the spring.

In the drawings the reference-numeral 1 indicates the bolt, and 2 the threads thereof. The reference-numeral 3 represents a series of grooves extending across said thread and in alinement with the bolt.

The reference-numeral 4 indicates a nut provided with a pair of recesses in which are secured the pins 5 and 6, arranged at an angle to each other.

The reference-numeral 8 indicates a substantially-triangular spring bent to form loops 9 and 10 and the arms 11 and 12. The outer end of the arm 12 is bent at an angle to form a support 13 for the arm 11 when the latter is in the inoperative position. The arm 11 is also bent at an angle, as at 14, forming a fastening-catch, the end of which engages in the grooves 3 of the bolt. The catch 14 is preferably formed with a feather-edge.

The operation of my improved nut-lock is as follows: The spring 8 is secured in position to one face of the nut 4 by means of the pins 5 and 6 engaging the loops 9 and 10, and the hook portion 13 of the spring 8 engages in the recess 7 of the nut, allowing for the arm 11, carrying the fastening-catch 14, to swing downwardly and engage the longitudinal groove 3 of the bolt and prevent the nut from turning in the opposite direction.

The many advantages obtained by the use of my improved nut-lock will be readily apparent from the foregoing description, and a further description as to details is deemed unnecessary.

It will be readily apparent that in order to release the nut the catch may be forced out of engagement with the groove and the arm 11 elevated and held by the support 13. (See dotted line, Fig. 2.) The nut then may be easily turned. It will also be noted that nuts and bolts may be used a number of times until the spring becomes worn, and then a new one may be replaced with but slight expense.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the bolt having longitudinal grooves in its threaded end, of the nut adapted to be mounted upon said threaded end and having a pair of pins mounted in its outer face, and a locking-spring mounted upon said pins and so constructed that when in the operative position its locking end will engage

the bolt and when in the inoperative position its locking end may be supported by the opposite end of the spring, substantially as set forth.

2. The screw-threaded nut having pins mounted on its outer face, combined with the locking-spring mounted upon said pins with its one end adapted to project normally into the screw-threaded opening in the nut, and means carried by the other end of said spring for holding the locking end thereof in the inoperative position, substantially as described.

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

BENJAMAN F. VOLLER.

Witnesses:

JOHN NOLAND,

WILLIAM E. MINOR.