

(No Model.)

T. J. KENNEDY.
NUT LOCK.

No. 459,889.

Patented Sept. 22, 1891.

Fig. 1.

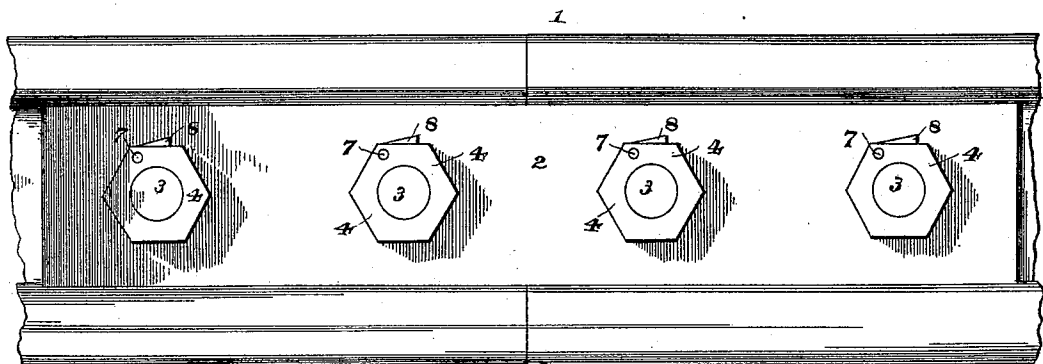


Fig. 2.

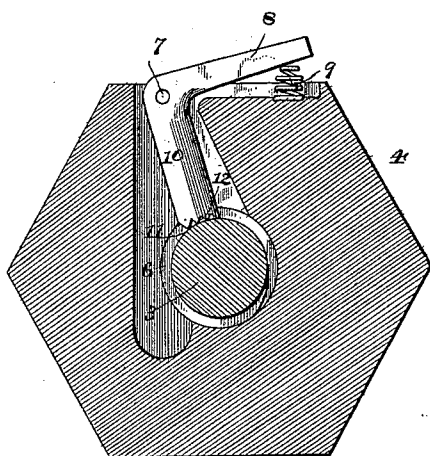


Fig. 4.

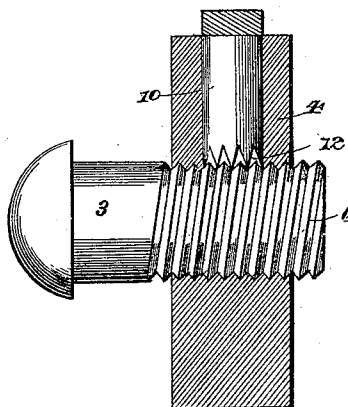
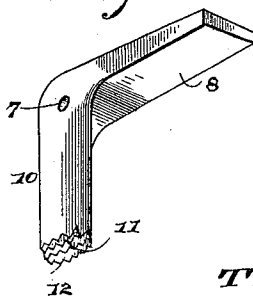


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS J. KENNEDY, OF RENFREW, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 459,889, dated September 22, 1891.

Application filed April 29, 1891. Serial No. 390,907. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. KENNEDY, a citizen of the United States, residing at Renfrew, in the county of Butler and State of Pennsylvania, have invented a new and useful Nut-Lock, of which the following is a specification.

This invention relates to improvements in nut-locks, the objects in view being to provide a nut of cheap and simple construction adapted to be applied and removed in the ordinary manner and when applied to automatically lock itself upon the bolt.

A further object of the invention is to so construct the lock as to offer no obstruction to the application of the nut to the bolt.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claim.

Referring to the drawings, Figure 1 is an elevation of a railway-joint, the bolts provided with nuts locked in position in accordance with my invention. Fig. 2 is a transverse section through the nut and the bolt. Fig. 3 is an enlarged detail in perspective of the locking lever or dog. Fig. 4 is a longitudinal section showing how the thread-sections of the dog engage the threads of the bolt.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the usual rail-sections, to the opposite sides of the webs of which are applied the fish-bars 2. These fish-bars, together with the webs of said rail-sections, are perforated to receive the usual number of bolts 3, each of which has threaded thereon the nut 4. The nut 4 of each bolt is provided in one of its faces with an L-shaped recess 5, which communicates with the threaded perforation 6 thereof, and in said recess there is pivoted at its angle by a pin 7 a bell-crank lever or dog 8. The outer end of the dog lies in the outer portion of the recess, and interposed between the bottom of the recess and said outer portion of the dog is a coiled spring 9, yieldingly pressing the outer branch of the bell-crank outwardly beyond the face of the nut, and therefore pressing the opposite or inner branch of said bell-crank inwardly into the threaded perforation of the nut. The inner end of the bell-crank dog is spread or widened,

and is also curved, as shown, forming a head 10 of segmental shape. The rounded face of the head is provided with a series of longitudinal thread-sections 11, which are deeper than but coincident with the threads of the central perforation of the nut. These thread-sections are provided each with a series of uniformly disposed and inclined teeth 12, designed to engage with the seat of the threads of the bolt when the latter is rotated in one direction.

In operation the bolt is passed through its perforation in the usual manner, after which the nut is applied, and by reason of its teeth being inclined and the face threaded to form continuations of the threads of the nut said dog offers no obstruction to the nut turning to the right. If, however, the jarring of the nut should cause the same to attempt to turn to the left, the teeth of the dog immediately engage with the seats of the threads of the bolt and bite or bind therein in such manner as to render the rotation of the nut upon the bolt impossible without first withdrawing the teeth from their contact with the metal between the threads of the bolt by pressing inwardly the outer branch of the bell-crank dog against the tension of the coiled spring. This construction is of especial advantage, since the wear caused by the biting of the dog is between and not on the threads of the bolt, and hence does not destroy the threads thereof nor wear away their operative faces. It will be observed that by applying a wrench to the nut in the usual way and so as to compress the outer end of the bell-crank dog the nut may be removed with ease.

The lock is especially adapted for use upon the nuts or bolts of rail-joints and of stationary engines; but it will be observed that it can be used with the same advantage upon any kind of machinery where a considerable vibration of the parts takes place.

Having described my invention, what I claim is—

The herein-described nut-lock, consisting of a nut provided at one side with an L-shaped recess communicating with the interior perforation of the nut, a bell-crank lever pivoted at its angle in the angle of the recess and terminating at its inner end in a head having longitudinal thread-sections corresponding

with but deeper than the threads of the nut,
said thread-sections having inclined trans-
verse teeth, and a spring for pressing the
outer end of the bell-crank beyond the face
5 of the nut and the inner end inwardly, where-
by its teeth are adapted to engage the seats
between the threads of a bolt, substantially
as specified.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 10
presence of two witnesses.

THOMAS J. KENNEDY.

Witnesses:

JESSE E. KINSER,
LEVI M. WISE.