No. 610,679.

Patented Sept. 13, 1898.

A. L. HOLMES & J. H. CAMPBELL.

NUT LOCK.

(No Model.)

(Application filed Nov. 20, 1897.)

Fig. 1.

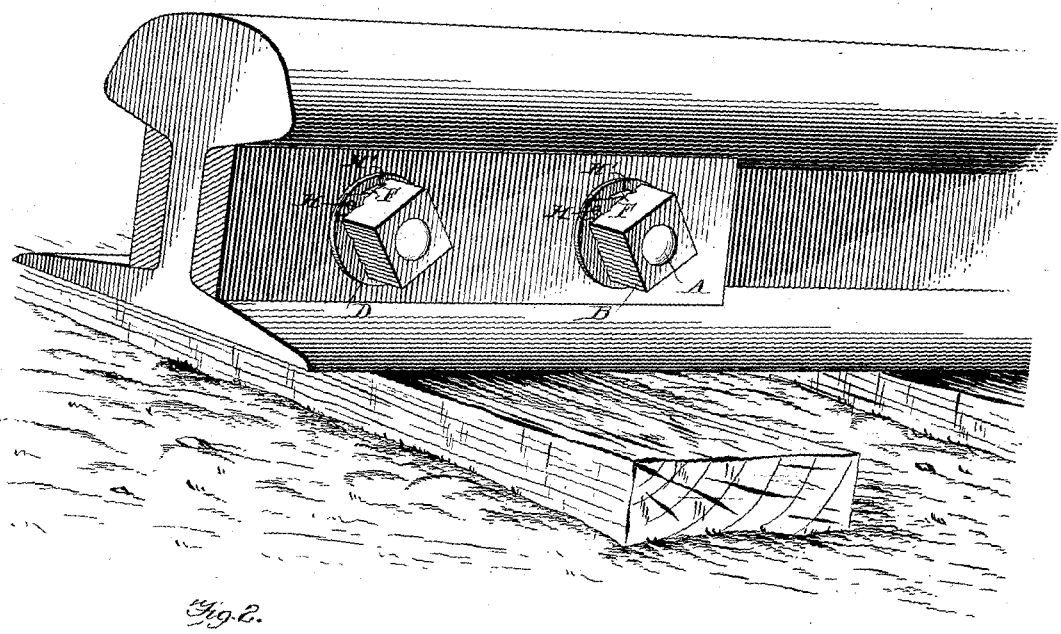


Fig. 2.

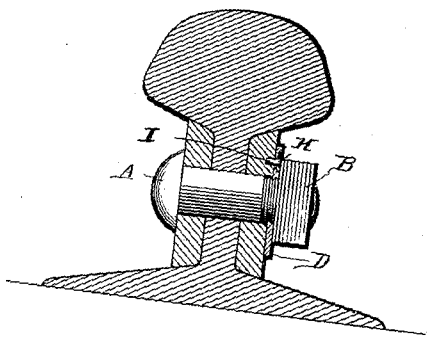


Fig. 4.

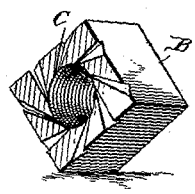
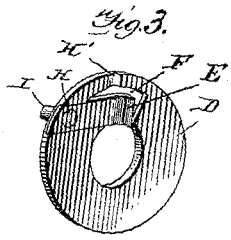


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

ADDISON LYSLE HOLMES AND JAMES HORACE CAMPBELL, OF ALMA, COLORADO.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 610,679, dated September 13, 1898.

Application filed November 20, 1897. Serial No. 659,325. (No model.)

To all whom it may concern:

Be it known that we, ADDISON LYSLE HOLMES and JAMES HORACE CAMPBELL, residing at Alma, in the county of Park and State of Colorado, have invented a new and useful Nut-Lock, of which the following is a specification.

This invention relates to improvements in nut-locks; and the object of the same is to provide a simple and improved lock for the nut whereby the latter is prevented from becoming loose upon the bolt, it being positively locked from any reverse movement thereon.

With the above object in view the invention consists of a locking-washer having a spring-tongue provided thereon adapted to engage a ratchet formed upon the inner face of the nut, the securing-rivet of said spring-tongue projecting from the opposite face of the washer and adapted to engage the fish-plate or other object to prevent the rotation of the washer.

The invention further consists in the improved construction, arrangement, and combination of parts hereinafter fully described, and afterward specifically pointed out in the claim.

In order to enable others skilled in the art to which our invention most nearly appertains to make and use the same, we will now proceed to describe its construction and operation, having reference to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a rail and fish-plate, showing the practical application of our invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a perspective view of the locking-washer. Fig. 4 is a similar view of the nut.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the accompanying drawings, A indicates the bolt, and B the nut, which is provided on its inner face with notches to form a ratchet C.

The locking-washer D is formed with the usual bolt-opening and in the upper portion is provided a slot F and a channel or cut-out portion adjacent thereto. Secured in this channel portion is the spring-tongue E, having its inner free end bent outwardly to engage the ratchet-teeth C of the nut B and positioned over the slot of the washer, so that the same can be pressed backwardly therein for disengaging said ratchet when it is desired to remove the nut.

A slight groove H′ is formed in the washer above the spring-tongue to receive an instrument to be used in disengaging the tongue from the ratchet of the nut. The rivet I, which secures the spring-tongue to the washer, extends through and projects from the inner side of the said washer and is adapted to engage a depression in the fish-plate or other object to which the bolt is applied. Should this object be wood, the tongue may be readily forced therein; but if it be of metal, as in the case of a fish-plate, it is necessary to form a depression therein. In operation the washer is placed upon the bolt with the projection or rivet I in engagement with the fish-plate or other object and the nut adjusted upon said bolt, the spring-tongue E engaging the ratchet of said nut and preventing its reverse movement. Thus it will be seen that a positive and reliable lock is provided which absolutely prevents the nut from becoming loose upon the bolt. When it is desired to remove the nut, the spring-tongue is disengaged from the ratchet by the pressure of some tool, the same being readily effected.

From the above description it will be seen that we have produced a simple and effective locking device which is positive and reliable in its action and which may be used wherever it is desired to lock a nut to prevent its reversed movement upon the bolt.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

In a nut-lock, the combination with a nut provided on its inner face with a plurality of notches, of a locking-washer having a spring-tongue secured thereto and adapted to engage said notches, the securing rivet, or screw of the spring-tongue projecting from the opposite face of the washer and adapted to engage the fish-plate, or other object to which the nut is applied, substantially as set forth.

ADDISON LYSLE HOLMES.
JAMES HORACE CAMPBELL.

Witnesses:
EDWARD P. ARTHUR, Jr.,
HARRY E. CARROLL.