(No Model.)

M. FROEHLICH.

NUT LOCK.

No. 576,399. Patented Feb. 2, 1897.

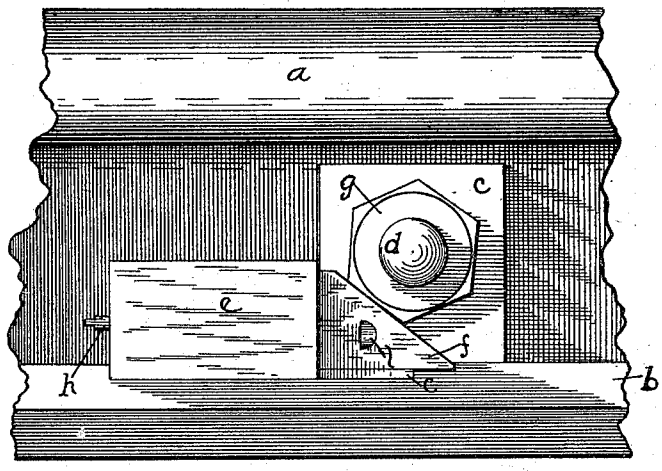

Fig. 1.

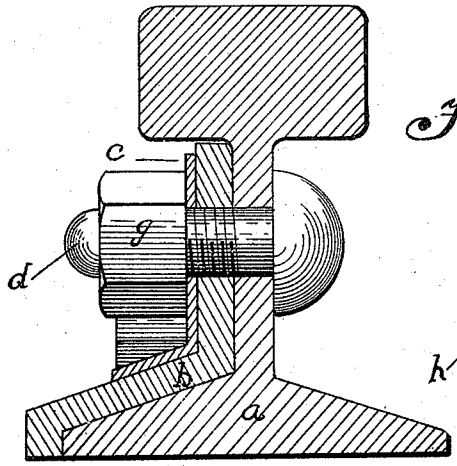

Fig. 2.

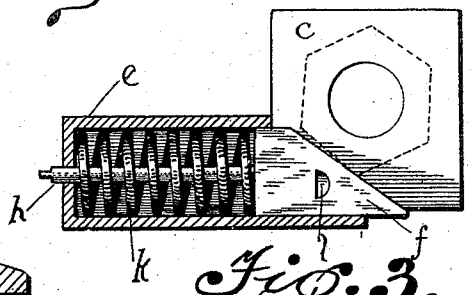

Fig. 3.

WITNESSES:

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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 576,399, dated February 2, 1897.

Application filed July 13, 1896. Serial No. 598,947. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL FROEHLICH, 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 in general, and relates more particularly to that class employed on railways, although the same may be advantageously employed for fastening the nut in many other instances than that shown herein and to be more fully described hereinafter.

The invention has for its object to construct a nut-lock that will be extremely simple in its construction, strong, durable, effectual in its operation, and comparatively inexpensive to manufacture; furthermore, a lock that when placed in position and in engagement with the nut it will be impossible for the nut to become loose until the lock is removed.

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 specifically described, and particularly pointed out in the claims.

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

Figure 1 is a side elevation of a portion of a railroad-rail with my improved nut-lock in position. Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a side view of the lock, partly in section.

In the drawings, *a* represents the rail, and *b* the ordinary fish-plate, neither of which form any part of this invention, but are shown and lettered for the purpose of more fully describing the invention.

c represents a plate which is adapted to fit over the bolt *d*, and has formed integral therewith a casing or box *e*, extending in alinement with the rail. Within this casing is a lock-bolt *f*, formed with an inclined upper face to engage the nut *g*, said locking-bolt carrying a shank *h*, supported by the rear of the casing and having arranged thereon a coil-spring *k* to keep the locking-bolt in engagement with the nut, said bolt having a cut-away portion *l* on its outer face, forming a catch to depress the bolt *f* within the casing and out of engagement with the nut when it is desired to place it in position or remove the same. The lower face of the casing *e* is extended, against which the bolt *f* is adapted to bear by the backing of the nut, thus preventing the removal of said nut.

The operation of my improved nut-lock will be readily apparent from the views of the same that I have shown in the drawings, but in order to illustrate the same more clearly I will describe it as follows: When the fish-plate has been placed in its position on the side of the rail, the bolt is inserted through the same in the ordinary manner, and the plate *c* is then placed on the fish-plate and over the bolt, when by placing any instrument in the catch *l* in the locking-bar and pressing backward on same the said bar is forced within the casing and out of the way of the nut, when the same can be readily placed on the bolt and tightened on same. When the pressure on the locking-bar is released, the coil-spring arranged on the shank will force the bar outward in engagement with the nut and prevent the same from turning, holding the same in this position until the locking-bar is released from engagement therewith.

By this construction of a nut-lock the nut will be firmly held in its position and prevented from moving therefrom and becoming loose by the jarring of the trains in passing over the rails, as is now often the case, and it will also be observed that the nut can be easily and quickly removed when so desired.

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

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

1. A nut-lock consisting of a washer, a casing formed with said washer and to one side thereof, a spring-pressed bolt secured in the

casing, the end of the bolt being inclined to engage a nut, the lower side of the casing being prolonged and against which the bolt is adapted to bear, as and for the purpose described.

2. A nut-lock consisting of a washer adapted to be interposed between the nut and fish-plate, a casing formed with said washer and to one side thereof, the lower side of the casing being extended, a bolt fitted in the casing, a shank formed on the bolt and projecting rearward through the end of the casing, a spring encircling the shank and pressing said bolt outward, the end of the bolt being inclined to engage the side of a nut, said bolt being adapted to be wedged between the lower side of the casing and the nut, substantially as set forth.

3. In a nut-lock, the combination of a washer fitted over the bolt a casing formed with the washer, the lower side of the casing being extended, a bolt operating in the casing and having an inclined outer end, said bolt having a notch cut in its outside face, a shank formed with the bolt and protruding through the end of the casing, a spring encircling the shank and pressing the bolt outward, said bolt being wedged against the lower side of the casing and the nut, as and for the purpose described.

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

MICHAEL FROEHLICH.

Witnesses:
H. C. EVERT,
H. E. SEIBERT.