

G. W. TYLER.
NUT LOCK.
APPLICATION FILED APR. 15, 1912.

1,050,182.

Patented Jan. 14, 1913.

Fig. 1.

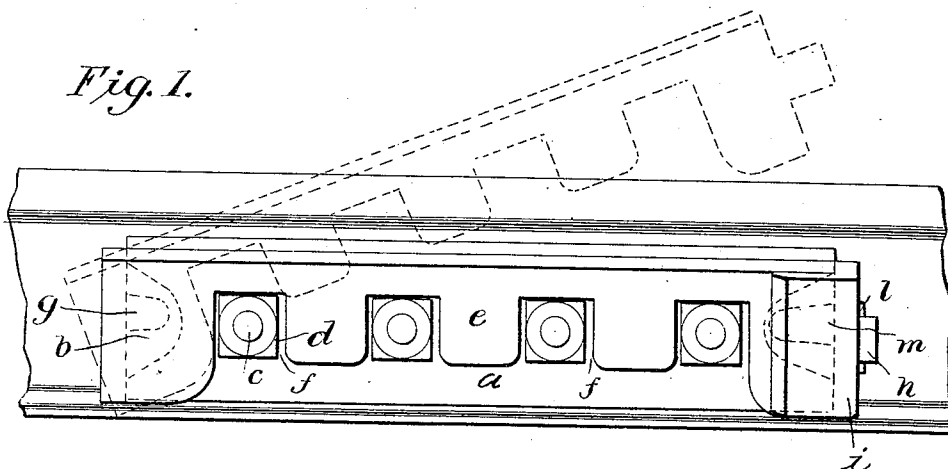


Fig. 2.

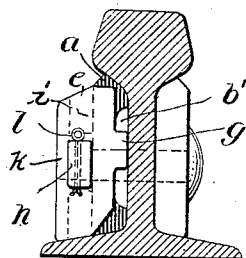


Fig. 3.

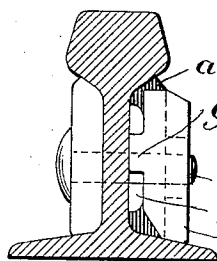


Fig. 4.

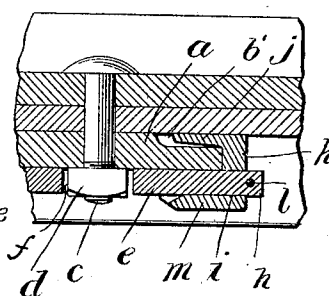
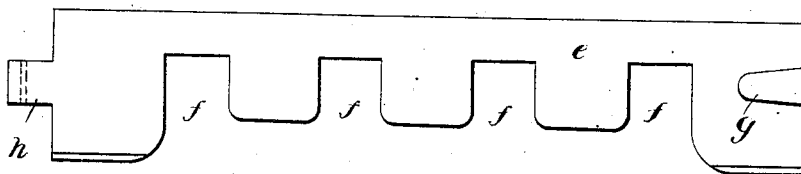


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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NUT-LOCK.

1,050,182.

Specification of Letters Patent.

Patented Jan. 14, 1913.

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To all whom it may concern:

Be it known that I, GEORGE W. TYLER, a citizen of the United States, and a resident of Roanoke, county of Roanoke, State of Virginia, have invented certain new and useful Improvements in Nut-Locks, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of an ordinary rail joint provided with my invention, the locking plate being shown in dotted lines in the act of being removed; Fig. 2 is a cross section of the rail, showing my nut locking device in end elevation; Fig. 3 a similar view looking at the opposite end of the device; Fig. 4 a horizontal sectional view taken through one end of my device; and Fig. 5 a detail view of the inner face of the lock plate.

The object of this invention is to provide a simple detachable device for securely locking all the nuts on the rail joint bolts, as more fully hereinafter set forth.

In the drawing, *a* designates a fish-plate which is of the usual construction except that its inner face at its ends is provided with notches or recesses *b*, *b'*, this fish plate being clamped against the rails in the usual manner by bolts *c* provided with nuts *d*. A lock plate *e* has a series of notches *f* formed in its lower edge, these notches fitting down over the nuts and hugging them sufficiently closely to prevent the nuts turning on their bolts to any considerable degree.

At one end the lock plate is provided with a hook-like finger *g* which is off-set from the rear face of the plate sufficiently to enter the notch or pocket *b* in the fish plate. The other end of the lock plate is provided with a projection *h* lying in the plane of the body of the lock plate. Slidably fitting over this pin *h* is a clip *i* which is provided with a finger *j* which when the clip is in place enters the pocket *b'*. The body part *k* of the clip is provided with a hole for the passage of the projection *h* and is adapted to fit squarely against the adjacent end of the lock plate, the clip being held on said projection *h* by means of a removable pin *l*, which passes through said projection *h*. To

steady and position the clip, it is provided with a flange *m*, approximately parallel with the finger *j* and adapted to fit against the front face of the lock plate. It will be observed that when the lock plate is thus held in position, the notches *f* will loosely embrace the nuts and hold them against turning off their bolts. When it is desired to remove the lock plate, it is simply necessary to remove the pin *l* and detach the clip *i*, whereupon the lock plate may be detached by swinging up its free end as shown in dotted lines in Fig. 1, this upward movement being continued until all the notches *f* have passed off the nuts. It will be observed that there must be sufficient play or clearance between the notches and the nuts and between the hook *g* and the walls of its recess or pocket *b* to enable the lock plate to be swung upwardly off the nuts without binding. It is necessary that the parts be so proportioned that the lock plate may be swung upwardly far enough to release the notch nearest the permanent finger *g* from its nut sufficiently to enable the lock plate to be slid endwisely in order to disconnect said hook or finger *g* from its pocket behind the fish plate.

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

In combination with a rail joint whose fish plate is provided with an inner recess or pocket at each end, of locking means for the nuts consisting of a lock plate having nut receiving notches along its lower edge, a permanent off-set hook-like finger at one end and a detachable clip at its other end, this clip being provided also with a finger or hook, for the purposes set forth, the recess or pocket at one end of the fish plate being greater in width than the permanent finger which it receives to thereby permit the lock-plate to be placed in locking position or removed from locking position by a vertically swinging movement.

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

GEORGE W. TYLER.

Witnesses:

J. H. SPEED,
L. B. TAYLOR.