

(No Model.)

G. OLLIVER.
RAILROAD NUT LOCK.

No. 484,755.

Patented Oct. 18, 1892.

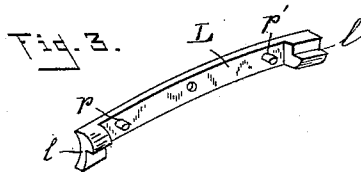
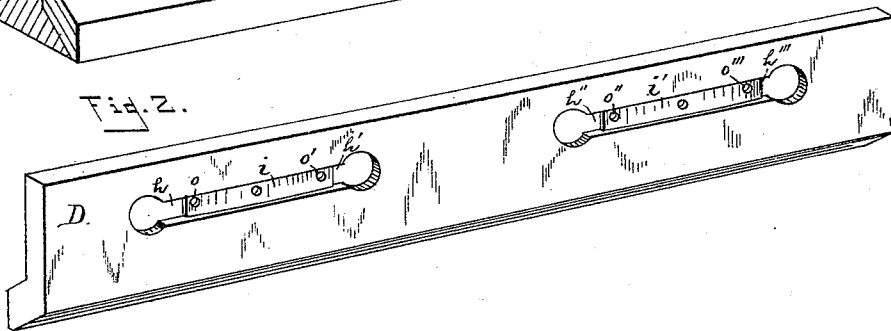
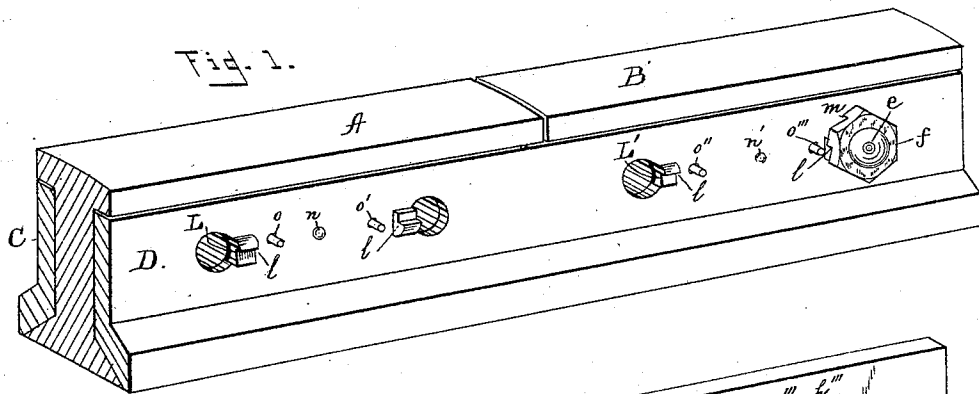
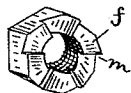


Fig. 4.



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

GASTON OLLIVER, OF COLEMAN'S FALLS, VIRGINIA, ASSIGNOR OF THREE-FOURTHS TO L. U. MAYO, OF SAME PLACE.

RAILROAD NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 484,755, dated October 18, 1892.

Application filed May 31, 1892. Serial No. 435,013. (No model.)

To all whom it may concern:

Be it known that I, GASTON OLLIVER, a citizen of the United States, residing at Coleman's Falls, in the county of Bedford and State of Virginia, have invented new and useful Improvements in Railroad Nut-Locks, of which the following is a specification.

This invention relates to a device for automatically locking the nuts of railroad-rail joints without injury to the threads of either the bolts or nuts.

The invention consists in the combination, with the abutting ends of railroad-rails and connecting fish-bars, of a spring device for engaging and securely holding the bolt-nuts in tightened positions and also permitting the removal of said nuts, as occasion may require.

The invention is clearly shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of the abutting ends of two rails with connecting fish-bars, bolts, nuts, and locking device complete. Fig. 2 is a perspective view from the inner side of the fish-bar intended for the nut side of the joint. Fig. 3 is a perspective view of the spring-locking device detached, and Fig. 4 is a perspective view from the inner side of one of the bolt-nuts.

Referring to the drawings, the letters A B designate the railroad-rails, C D the fish-bars, *e* one of the bolts, and *f* one of the bolt-nuts. The fish-bar D, which is intended for use at the nut side of the rail-joint, is grooved at the adjacent sides of each outer pair of bolt-holes, as shown at *h h' h'' h'''*, and the inner ends of said grooves are connected by longitudinal channels *i i'* to receive the spring-bars L L'. The spring-bars L L' are each provided with outwardly-projecting notched ends *l*, adapted to operate in the grooved sides of the bolt-nuts and to engage the radiating angular teeth *m*, formed on the inner surface of the bolt-nuts, and thus prevent the backward turning of the said nuts, except when the notched ends of the spring-bar are depressed, as hereinafter described. If desired, the spring-bars L L' can be secured to the fish-bar D by means of pins or rivets, as shown at *n n'*.

The fish-bar D is provided near the ends of

the channels *i i'* with perforations *o o' o'' o'''* for the passage of pins, as hereinafter described, through the instrumentality of which the notched ends or catches of the spring-bars L L' are operated, so as to release their hold on the angular teeth of the bolt-nuts, and thereby permit the latter to be loosened or removed at will.

The pins above referred to for insertion in the perforations *o o' o'' o'''* either form a part of the spring-bars L L', as shown at *p p'*, being of sufficient length to project outside of the face of the fish-bar D, or be made part of a punch or other tool for insertion from the outer side of said fish-bar, so as to depress the ends of the spring-bars, as desired.

The spring-bars are preferably made thicker at their centers and are somewhat elliptical in form to insure the operating of their ends against the bolt-nuts and engaging the radial grooves thereof, as desired.

As a modification of the device hereinbefore described, but one spring-bar may be employed, the grooves and channel for the reception of the same being made between the two central or inner bolt-holes of the fish-bar D. In such case, however, the grooves at the side of the bolt-holes should be made somewhat deeper to allow for the constant change in space between the ends of the rails occasioned by the expansion and contraction of said rails.

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

1. In a railroad nut-lock, a fish-bar having the adjacent sides of two of its bolt-holes grooved and the inner ends of said grooves connected by a horizontal channel provided with outward apertures, as described, in combination with a spring-bar having outwardly-projecting ends to fit the channel and grooves of the fish-bar and the connecting-bolts with radially-grooved nuts, substantially as and for the purpose specified.

2. In a railroad nut-lock, a spring-bar having outwardly-projecting ends and pins, as described, with the rails and fish-bars, one of the latter channeled, grooved, and perforated, as specified, to receive the aforesaid spring-

bar, and the securing-bolts having nuts provided with grooved inner faces, substantially as and for the purpose set forth.

3. In a railroad nut-lock, a fish-bar having
5 the adjacent sides of each outer pair of bolt-holes grooved, channels connecting the inner ends of said grooves, and perforations through the channeled part of the fish-bar, as set forth, in combination with two spring-bars having
10 outwardly-projecting ends to fit the aforesaid channels and grooves and securing-bolts with

nuts grooved, substantially as and for the purpose specified.

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

GASTON ^{his} × OLLIVER.
mark

Witnesses:

ALFRED B. PERCY,
J. D. SULLIVAN.