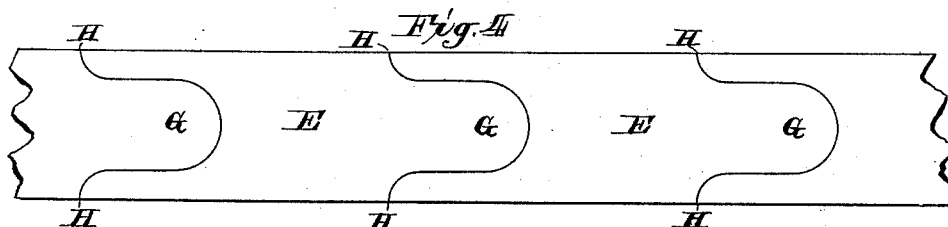
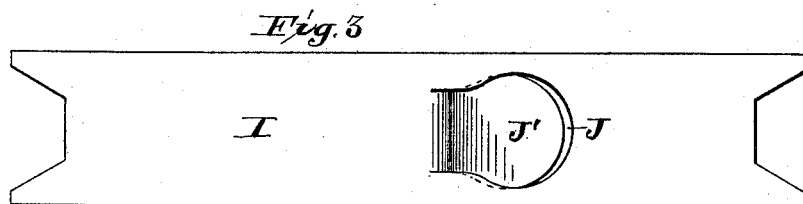
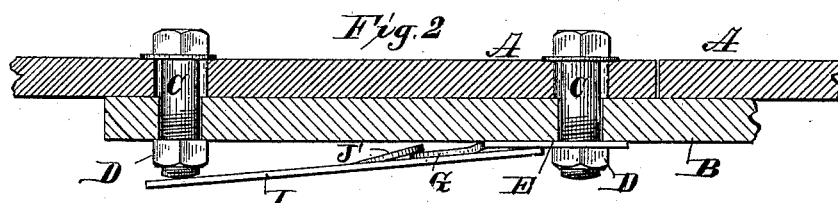
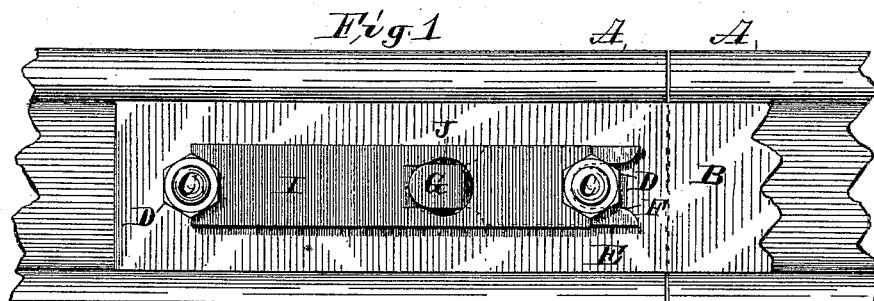


(No Model.)

L. A. ELSTER, E. YOUNG & J. E. KNAPP.
NUT LOCK.

No. 419,844.

Patented Jan. 21, 1890.



Witnesses

A. M. Elliott,
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UNITED STATES PATENT OFFICE.

LESTER A. ELSTER AND EDWARD YOUNG, OF JEFFERSONVILLE, AND JOHN E. KNAPP, OF WEST LANCASTER, OHIO.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 419,844, dated January 21, 1890.

Application filed March 22, 1889. Serial No. 304,310. (No model.)

To all whom it may concern:

Be it known that we, LESTER A. ELSTER and EDWARD YOUNG, residing at Jeffersonville, Fayette county, State of Ohio, and JOHN E. KNAPP, residing at West Lancaster, Fayette county, and State of Ohio, all citizens of the United States, 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; and it consists, essentially, of a back plate and a locking-plate, the former constructed at one end to be held and engaged by a nut and at the other end to project into an opening or recess in the locking-plate, and the latter constructed at its ends to embrace the nuts and arranged to be held from displacement by the back plate.

The invention also consists in so constructing the opening in the locking-plate and the engaging end or part of the back plate that the locking-plate, when forced out of engagement with a nut at one end, may be removed longitudinally and drawn out of connection with the back plate, all of which will be hereinafter more fully pointed out.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents a side elevation of a portion of a railway-rail and its fish-plate with our improvements applied thereto; Fig. 2, a horizontal section through the web of the rail, the fish-plate, and our improved devices, showing the locking-plate in position to be fastened; Fig. 3, a detail plan view of the locking-plate; and Fig. 4, a bar of stock from which the back plate is cut, showing the mode of facilitating the manufacture and economizing in material.

The letter A designates the adjoining ends of two sections of ordinary railway-rails, and the letter B the usual or any approved fish-plate employed to connect the sections together and to secure them by means of bolts C and nuts D.

The letter E designates the back plate of our nut-lock, the same consisting of a strip

of metal, preferably steel, fashioned at one end with an opened slot F to fit over a bolt, while the nut of the bolt may be screwed against and upon the prongs at either side of the slot, as seen. The other end of this plate is constructed with a tongue or projection G, having curved shoulders H. From Fig. 4 it will be observed that these back plates are intended to be stamped from a strip or ribbon of metal, and that the shape of the shoulders H forms a flaring entrance to the slot in the other or adjoining plate.

The letter I designates the locking-plate, which is also made from a strip of metal, preferably steel, and fashioned at either end with recesses to receive the nuts and embrace their sides in such a manner as to prevent them from rotating. Near the middle of the locking-plate it is constructed with a slot or opening J, preferably stamped or punched out, leaving a lip J', into which slot or opening is projected the tongue of the back plate. The lip guides the tongue into the slot and is of advantage in connecting the plates. It is preferred that these plates shall have such relative position as to bring the shoulders H of the back plate against the locking-plate, with the extreme end of the tongue engaging the face of the locking-plate, so as to prevent its dislodgment from engagement with the nuts.

In order to remove the locking-plate, an instrument or device of any suitable kind having a reduced end is projected under or at the back of one end of the locking-plate, preferably the end farthest from the tongue, and such end pried out of engagement with the adjacent nut. This done, the plate is removed lengthwise from the tongue until drawn out of engagement.

The prying of the end of the locking-plate springs the back plate outward somewhat, and hence the desirability of making it of spring metal.

It will be readily understood that in applying the device the back plate is first secured by one of the nuts, and then the locking-plate placed in position to project the tongue into its slot, and then moved longitudinally toward the back plate until it embraces and fits over the nuts, when the tongue will be

found to be properly projected through the slot.

The device consists of but two pieces, and these are so fashioned that the entire work may be done by the use of dies, so as to reduce the cost of manufacture to an extremely low figure. The direct engagement of the two plates, effected by projecting a part of one through the slot in the other, renders their engagement and disengagement readily and easily accomplished, while the nuts are held absolutely free from the liability of ever getting loose or unscrewed.

We have shown and described our improvement in connection with railway-rails; but it is obvious that it may be used in other connections, as on bridges, &c.

The locking-plate I may have two of the slots J and lips J', so as to turn the plate end for end should there be occasion to do so.

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

1. In a nut-lock, the combination, with bolts and nuts, and a spring back plate held by one of the nuts and running in the direction of the other nut, but terminating before reaching it, of a locking-plate slidingly connected to the back plate intermediate of its ends and extended from one nut to the other, so that the locking-plate only locks the nuts, while the back plate holds the locking-plate, the

spring of the back plate allowing the locking-plate to be sprung off of a nut, and the sliding connection allowing the locking-plate to be moved longitudinally in and out of place.

2. In a nut-lock, the combination, with bolts and nuts, and a back plate held by one of said nuts at one end and having a tongue or projection at the other end, said latter end terminating about midway between the nuts, of a locking-plate extending from nut to nut on the outer side of the back plate and slotted at or near the middle to receive the tongue of the back plate, whereby the locking-plate is held from disengagement.

3. In a nut-lock, the combination, with the back plate slotted at one end and forming a tongue or projection at its other end, the same extending somewhat outward, and a locking-plate constructed at its ends to be engaged with the nuts to be locked, and transversely slotted at an intermediate point to receive said tongue or projection, the slot having a lip at the rear of the plate to guide the insertion of the tongue or projection.

In testimony whereof we affix our signatures in presence of two witnesses.

LESTER A. ELSTER.

EDWARD YOUNG.

JOHN E. KNAPP.

Witnesses:

POPE GREGG,

E. L. JAMES.