

W. McLIMENS.
NUT-LOCK.

No. 178,654.

Patented June 13, 1876.

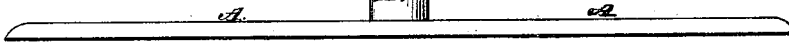


Fig. 2.

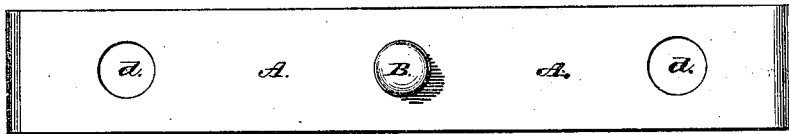
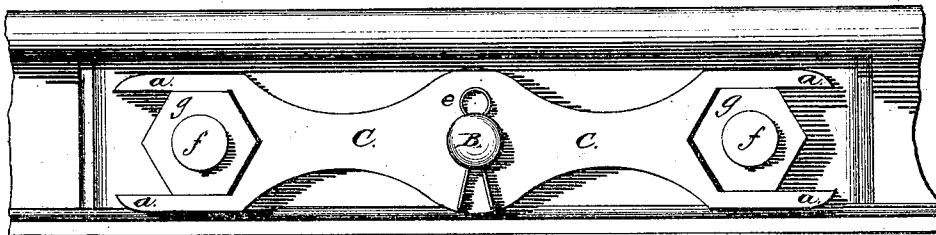


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

WILLIAM McLIMENS, OF CHRISTIANA, PENNSYLVANIA.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. 178,654, dated June 13, 1876; application filed July 6, 1875.

To all whom it may concern:

Be it known that I, WILLIAM McLIMENS, of Christiana, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Fastenings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a detached side view of the plate and stud; Fig. 2, a plan view of the same, and Fig. 3, a side view of a rail with my invention applied.

This invention has relation to fastenings for the screw-bolts and nuts used in connecting the sections of railroad-rails; and my invention consists in a plate, through which the ends of the bolts pass, the same having projecting from its center a stud, over which a bar or plate is placed, said bar or plate having bifurcated ends, serving the double purpose of a lock for the nuts, and a wrench for tightening up the nuts upon the bolts, or removing the same, as desired.

In the drawings, the rails, fish-plates, and bolts do not differ materially from those now in common use, and therefore any description of them is not deemed essential to the understanding of my invention.

The bolts, as represented at *f*, after having passed through the fish-plates and rails, are ready to receive the flat metal plate A. This plate A, which consists, in part, of my invention, has a stud, B, projecting from its center, either cast with, or welded to, said plate, and has an elongated slot, *c*, for the reception of a spring-key, *e*, and at each end of the plate an annular opening, *d*, through which the bolts *f* pass.

The stud B, being in reality a part of the plate A, or rigidly connected thereto, the necessity of an additional bolt passing through the fish-plates and rails, which would tend to greatly weaken the connections between the two sections, is entirely dispensed with, the stud B performing the same office as a bolt in securing the locking-plate over the nuts.

The locking-plate and wrench-bar C is formed of suitable metal, and has a central opening, through which the end of the stud B passes, and has bifurcated ends formed by

the jaws *a a*, said jaws being parallel to each other, so as to grasp the nut upon its sides, and prevent the possibility of its slipping when used as a wrench, the plate C being confined in place over the nuts by a spring-key, *e*.

When it is desired to tighten up the nuts upon the bolts, or remove them, the locking-plate serves the additional purpose of a wrench. Such implement, therefore, is always ready at every point where the sections of rails are connected.

The plate C, with the jaws *a*, are of sufficient thickness, so when it is found necessary to use the wrench on the same line with the axes of the bolt and nut it will act more perfectly as a wrench in removing or tightening up the nut.

Another very important advantage in having the ends of the plate C bifurcated instead of an opening in the plate corresponding with the form or shape of the nut will be apparent from the fact the opening must necessarily conform to the number of sides of the nut, and of the same size, while the jaws *a a* are of sufficient length to allow any slight variation of the distance between the bolts, and act with equal effect as a locking-plate, while the bifurcated ends may be used upon nuts with four as well as six sides.

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

1. In a nut-fastening for railroad-rails, the plate C, having bifurcated ends formed by the jaws *a*, running parallel to each other, so as to serve the double purpose of a locking-plate for the nuts *g*, and a wrench for removing said nuts, or tightening them up upon the bolts *f*, substantially as and for the purpose set forth.

2. In a nut-fastening for railroad-rails, the bolts and nuts *f g*, and the plate A, formed with the stud B, and opening *c*, and key *e*, in combination with the plate C, having bifurcated ends to serve the double purpose of a locking plate and wrench, substantially as and for the purpose set forth.

WILLIAM McLIMENS.

Witnesses:

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E. SELTZER.