

(No Model.)

W. H. WOOD.

NUT LOCK.

No. 256,529.

Patented Apr. 18, 1882.

Fig. 1.

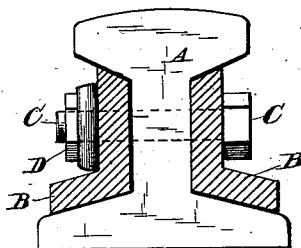


Fig. 2.

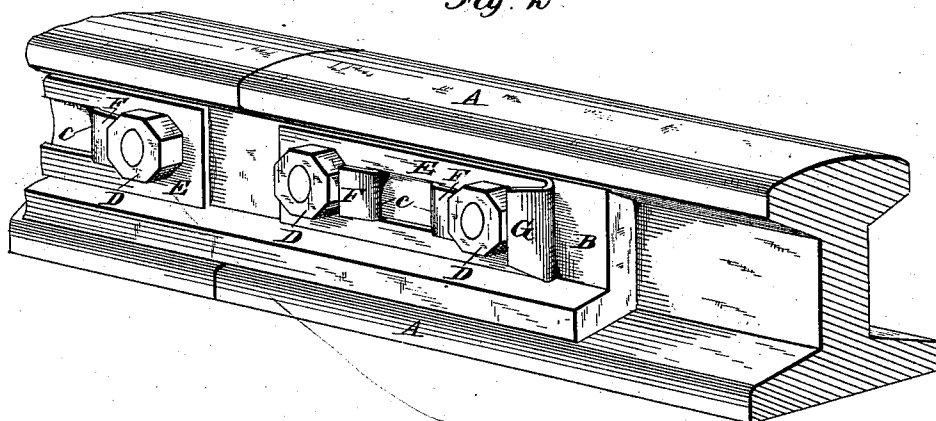


Fig. 3.

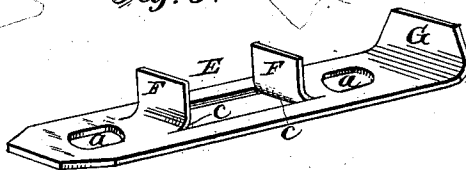
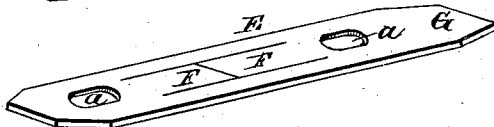


Fig. 4.



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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 256,529, dated April 18, 1882.

Application filed February 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY WOOD, a citizen of the United States of America, residing at Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is an end view of the rail with my nut-lock applied thereto. Fig. 2 is a perspective of the rails held together by the suspension-plates, with my lock applied to the nut. Fig. 3 is a perspective of the locking-plate detached from the other parts; and Fig. 4, a similar top view, showing the cuts before the lips are raised.

My invention relates to nut-locks particularly applicable to railroad uses, and yet adapted to be applied to other uses; and it consists in the construction and combination of parts, hereinafter particularly described and then sought to be specifically defined by the claim.

In the accompanying drawings, the letter A indicates portions of two rails which are connected together at their ends by fish-plates, or rather by suspension-plates B, and by bolts C and octagonal-headed nuts D. The several parts referred to are all of the well-known construction now generally used by railroads. The lock which I have devised for preventing the nut from turning on the bolt is applied after the nut has been screwed home, and consists of the sheet-metal or other metallic strip or plate, E, which is provided with bolt-holes *a*, and punched or otherwise cut between its ends or the bolt-holes, so as to form lips F, adapted to be bent or folded upon themselves or the surface of the strip, with their ends bearing against one side of the nut, as illustrated in the drawings. In forming these lips I cut two parallel longitudinal slits through the metal strip, and then sever the strip between the parallel slits by a transverse cut through its middle, thus forming two lips with their free ends adjacent to each other. The bolt-holes

can be punched out of the metal. The strip or lock is now ready to be applied. It is applied by slipping the strip over the bolts. The nuts are then screwed down. The lips F are next bent and folded, by hammering or otherwise, down upon themselves or the strip, with their ends against the sides of the nuts, whereby the nuts are prevented from turning. If the nuts for any reason are to be removed, the lips can be raised up and turned away from the nuts, and the latter can then be unscrewed. The strip or plate is prevented from turning by its lower edge resting on the foot of the rail or suspension-plate.

By forming the lips as described there results economy of metal, strength of the lips, effectiveness of the lock, and cheapness of production.

If desired, in addition to the lips F other lips, G, may be formed by turning in or folding the ends of the plate, so that they, too, will bear against one side of the nut—the side opposite to that against which the lip F bears. Both lips can thus be used, and if one should be damaged and its usefulness destroyed or affected from any cause the other lip will serve to keep the nut in place.

The plate as manufactured and before applied appears as shown in the detached view thereof in the drawings. The die that cuts the plate also turns up the lips at right angles to the surface of the plate, as illustrated. It will be observed that the bolt-holes are oblong. They are made so in order to permit an end adjustment of the plate, which is necessary, as all bolts are not set at exact distances apart, the slight variations arising from unintentional and uncontrollable causes—such as expansion and contraction of the parts. For the same reason it is necessary that the lips should admit of being lengthened or shortened in the extent of their fold, so that their edges may be brought against the sides of the nuts. By forming the lips as shown and described, with the bend at the point marked *c*, the road-hand or operator in applying the lock can, by striking the lip either on its end or at its curve, shorten or lengthen the fold of each lip to the extent of a quarter of an inch, (more or less,) so that in turning down the two lips, he can take up or let out one-half of an inch, and thus make

the one plate adjustable to bolts at unequal distances apart.

I lay no claim broadly to strips of metal cut with lips to bear against the nuts; nor to a locking-plate with a single lip turned over to bear against one side of the nut.

I am aware that there are a great many variations of sheet-metal locking-plates, and know of the objections which have been urged against them, and from a practical test of what I have devised I believe it possesses all the requisites of a locking-plate of the class to which it appertains.

Having fully described and set forth the merits of my invention, what I claim is—

The nut-lock composed of the strip E, divided by longitudinal and transverse slits into lips F, with their ends adjacent to each other, and adapted to be folded so that their ends will bear each against the side of a nut, substantially as set forth.

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

WILLIAM HENRY WOOD.

Witnesses:

JOSEPH FORREST,

ANDREW J. HENDERSON.