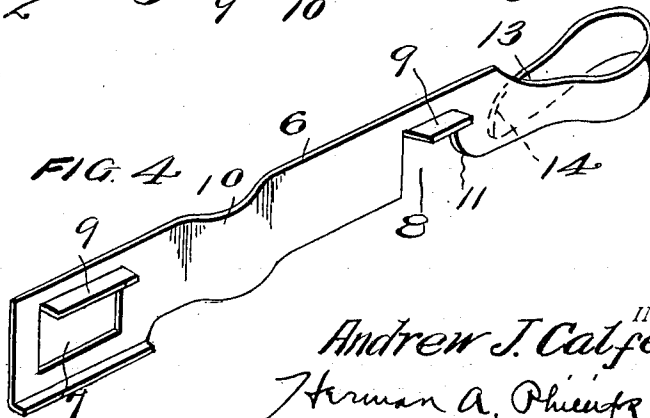
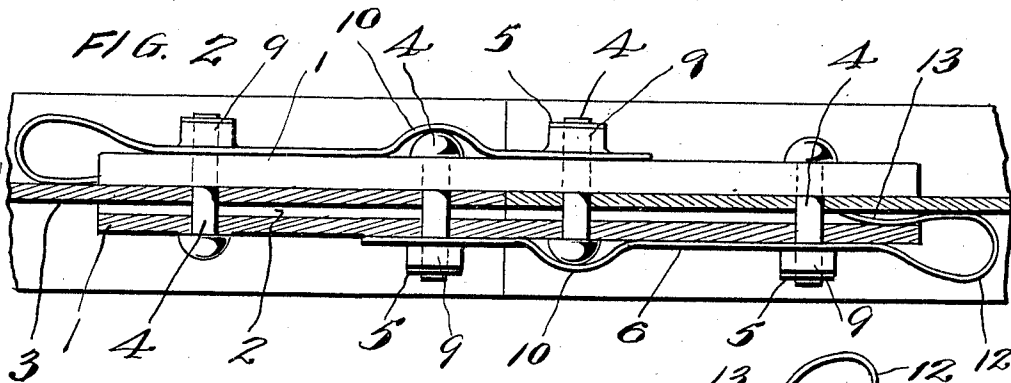
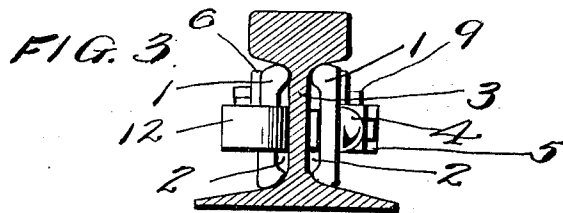
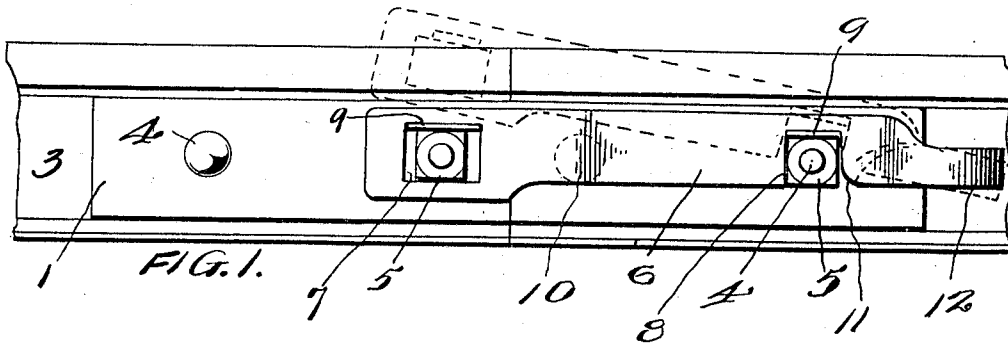


A. J. CALFEE.
NUT LOCK.
APPLICATION FILED FEB. 29, 1912.

1,051,861.

Patented Feb. 4, 1913.



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NUT-LOCK.

1,051,861.

Specification of Letters Patent.

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Application filed February 29, 1912. Serial No. 680,724.

To all whom it may concern:

Be it known that I, ANDREW J. CALFEE, a citizen of the United States, residing at Leadvale, in the county of Jefferson and State of Tennessee, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

My invention relates to improvements in nut locks and is designed especially for use in connection with railway rail joints.

The object of the invention is the provision of means for locking the nuts on the bolts which fasten the fish-plate to the abutting ends of the railway rails, and in accomplishing this object my invention is applied to rail joints as now customarily joined, through the medium of the fish plate itself, and the invention therefore is applicable for use with the standard railway rail joint fasteners, without any alteration whatever, and without the modification of any part of the joint structure.

The invention consists essentially in a device which may be attached to the fish plate and readily detached therefrom when necessary, and said device is provided with means for locking the nuts against turning on their bolts.

In the accompanying drawings I have illustrated one example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles, and which has proven highly successful and satisfactory in actual use.

Figure 1 is a side elevation of a railway joint showing my invention applied to the nuts at one side of the rail. Fig. 2 is a horizontal view, showing the rail web and a fish plate in section, and illustrating the use of a locking device at each side of the rail to lock the nuts at each side of the rail. Fig. 3 is a vertical sectional view of a rail showing a locking plate applied to each fish plate. Fig. 4 is a perspective view of the locking plate.

As before stated my invention is applicable for use in connection with existing fish-plates as attached to rail joints, and in the drawings the fish-plates 1 are of usual construction, formed with an inner groove 2 adjacent the web of the rail 3. The rail ends are jointed by means of the fish plates and the bolts 4, and their respective nuts 5, as is well understood.

The locking device as illustrated most clearly in Fig. 4 comprises a metallic plate 6 preferably of sheet steel and elastic, and formed at one end with an elongated slot or opening 7. At the opposite end a recess or notch 8 is cut out of the bottom edge of the plate, and above this recess, as also above the elongated slot 7, the material is turned out to form a detent 9. Located between the notch and slot is a curved portion 10, which adds to the elastic qualities of the plate. It will be noted that one corner of the notch 8 is curved, as at 11, for a purpose as will appear, hereinafter.

At one end of the plate the material is cut away and bent to form a spring hook 12, which is formed with an end tongue 13, rounded at its extreme point 14.

In attaching the locking plate to a rail joint, the tongue 13 is inserted under the fish plate, in the groove 2, the rounded part 14 permitting the insertion of the tongue at even position more nearly vertical than the dotted position indicated in Fig. 1. In Fig. 2 the position of the spring hook is clearly shown between the fish plate and the rail web, and with the position in mind it will be clearly understood that the plate may now be turned down to the position of Fig. 1 (with the point at 13 Fig. 2, as a pivot). While turning the plate down, the end opposite the hook is held away from the rail until the notch or recess 8 is brought over a nut, then the end of the plate is free from the hand and the elasticity of the metal springs the elongated slot 7 over the second nut. In this position the detents 9 bear down upon the top of the nuts 5 and prevent their turning. The elastic plate is locked against detachment vertically by the notch and elongated, and lateral displacement is prevented by the hook 12 which firmly grips the fish plate.

It will be observed especially in Fig. 2 that the curved portions 10 of the spring plate are located in position to lie against the heads of the bolts. This construction not only permits the plate to lie flat against the fish plate, but adds to the elasticity of the locking device. The elongated slot 7 provides for slight variations in the distance between the bolts, and the curved portion 11 permits the swing of the spring plate without contact with a nut 5.

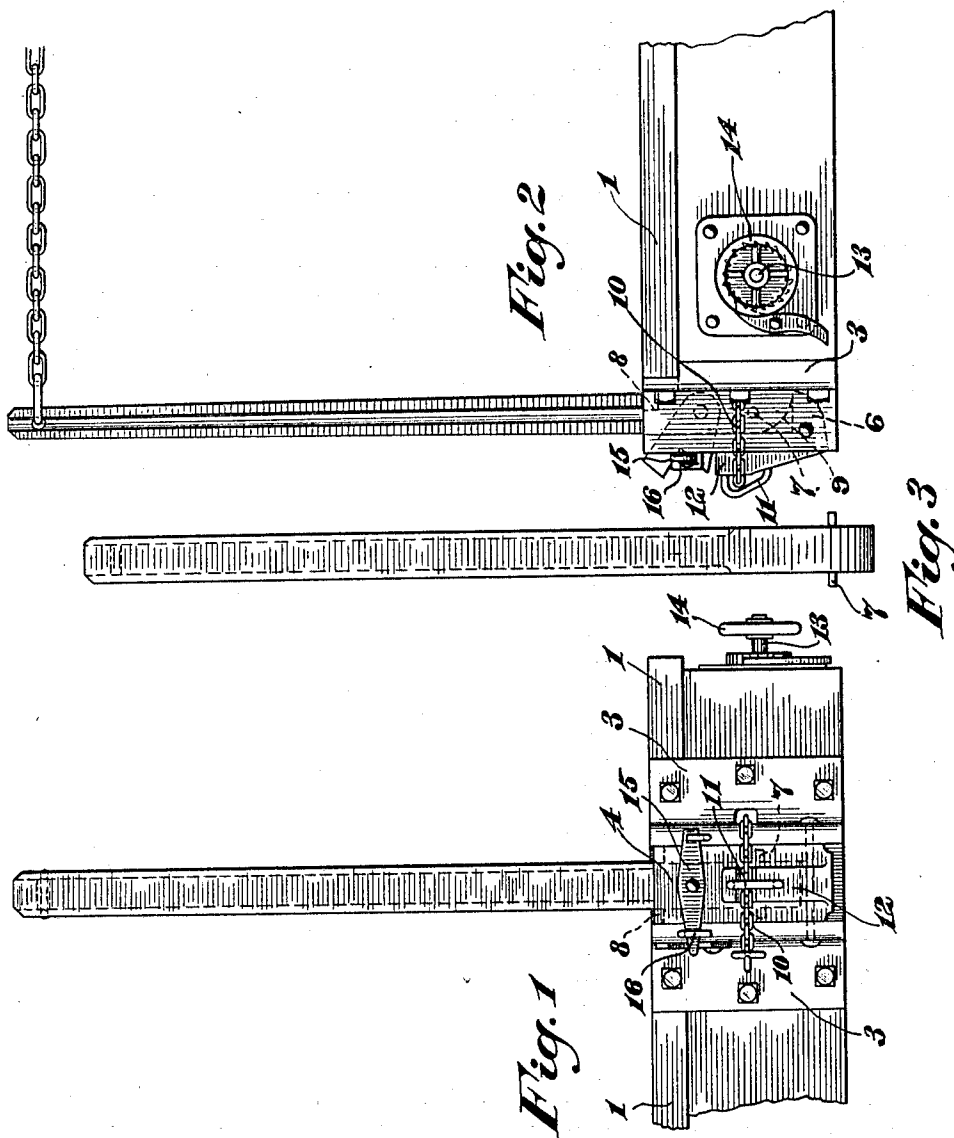
Having thus fully described my invention, 110

W. E. CALLAWAY.
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2 SHEETS-SHEET 1.



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