No. 679,137. Patented July 23, 1901.

E. G. BAXTER.

NUT PLATE LOCK.

(Application filed Sept. 25, 1900.)

(No Model.)

Fig. 1.

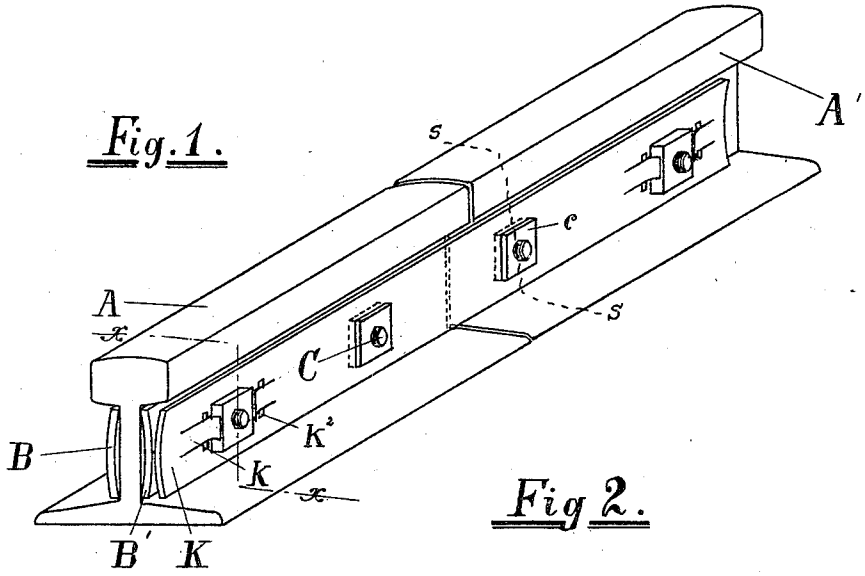


Fig 2.

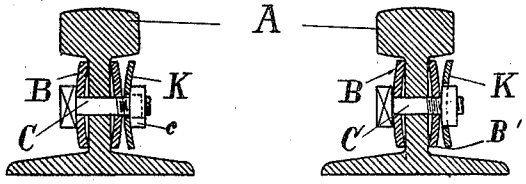
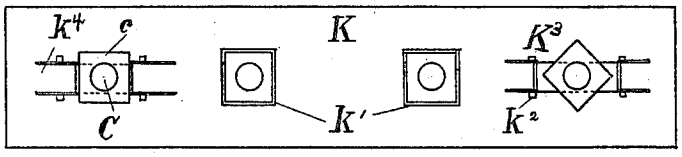


Fig 3.



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EDMUND G. BAXTER, OF MATANZAS, CUBA.

NUT-PLATE LOCK.

SPECIFICATION forming part of Letters Patent No. 679,137, dated July 23, 1901.

Application filed September 25, 1900. Serial No. 31,123. (No model.)

To all whom it may concern:

Be it known that I, EDMUND G. BAXTER, a subject of Her Majesty Queen Victoria, Queen of Great Britain and Ireland, residing at Apartado 143, in the city of Matanzas, in the Province of Matanzas, Island of Cuba, have invented certain new and useful Improvements in Nut-Plate Locks or Nut-Locking Plates, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to provide a simple, durable, and inexpensive nut-lock which may be easily attached and detached and which will effectually prevent the accidental unscrewing of the nut.

The invention consists of a nut-locking plate provided with a number of rectangular-shaped apertures designed to fit over several of the nuts on fish-bolts, which are first tightened over the fish-plate, of any ordinary construction, said nut-locking plate also being provided with one or more other rectangular apertures, which are large enough to permit the screw-threaded portion of a fish-bolt to project through, and two tongues or clips formed by cutting the nut-locking plate on opposite sides of said last-mentioned apertures, so that said tongues may be bent upwardly or away from said apertures while each of the other nuts is being tightened on its projecting fish-bolt. When the said last-mentioned nut is tightened, it projects over two of the edges of the said last-mentioned apertures, and the said tongues are of such a length that when bent down they fit snugly against two opposite sides of the said nut, thus preventing said nut from turning and securing the nut-locking plate, the first-mentioned nuts being locked in the first above-mentioned rectangular apertures in said locking-plate. All of the nuts are secured against accidental unscrewing, which is the object of my invention.

The invention consists in the construction and novel combination and arrangement of parts herein fully described, illustrated in the drawings, and pointed out in the claims hereto appended.

In the accompanying drawings, which form a part of this specification, similar letters of reference indicate like parts.

Figure 1 is a perspective view of a nut-lock constructed in accordance with this invention and applied to a rail-joint. In Fig. 2 are shown two sectional views on the lines X X and S S, respectively, of Fig. 1, showing the nut-locking plate curved or corrugated longitudinally. In the one case the plate is overlapped on two sides by a nut, and in the other case the nut projects through a rectangular opening in the plate. Fig. 3 is a view of nut-locking plate, showing in detail the construction thereof.

K designates a nut-locking plate of resilient metal corrugated longitudinally and provided with rectangular apertures k', which register with apertures in the fish-plates and web of the rail, through which fish-bolts C are adapted to be passed and secured by means of nut c, thereby retaining the fish-plates securely to the ends of the rails, as required. The apertures k' are slightly larger than the area of the face of the nut c and fit snugly about the four sides of the nut; but I provide the nut-locking plate with one or more apertures designated by k^3. It is large enough to permit the screw-threaded end of the fish-bolt C to pass through and is in one direction as long as the face of the nut from side to side, while in the other direction it is merely large enough to permit the threaded end of the bolt to pass through, so that when the nut c' is tightened on the fish-bolt C it overlaps the sides of the aperture k^3. Tongues k^4 are formed by cutting the nut-locking plate, as shown in the drawings, so that two opposite sides may be turned upwardly while the nut c' is being tightened, and when so tightened may be bent down or lowered, so as to fit against two sides of the nut c', thereby locking the same, holding the nut-locking plate securely, and at the same time locking all the nuts c and c'. To facilitate the raising of the tongues k^4, the nut-locking plate K is provided with the slots k^2 at the corners of the aperture k^3 to permit the insertion of a pin or bar to prize the tongues when necessary. It is understood that two or more of the apertures k^3 may be employed with tongues k^4 and that any suitable metal of a nature to admit of the prizing and lowering of said tongues may be used in the construction of said corrugated nut-locking plates K.

In the drawings, B and B′ indicate the fish-plates, and A the ends of ordinary railway-rails.

The location of the various apertures in the nut-locking plate may be changed without departing from the spirit of my invention.

With this description of my invention, what I claim is—

1. A nut-lock composed of the plate K corrugated longitudinally, and provided with one or more rectangular openings, each adapted to embrace a nut to prevent the same from turning on its bolt, and provided with two or more openings, each large enough to permit a bolt to pass therethrough, in combination with a screw-threaded bolt passing through said opening, a nut screwed on said bolt, and overlapping said plate K, to secure the same to the fish-plate, tongues cut forming an integral part of said plate K one on each side of and locking said last-mentioned nut, the ends of which when pressed down are adapted to prevent said last-mentioned nut from turning, said plate K being provided also with slots adjacent to, and at right angles with, the ends of said tongues, substantially as set forth.

2. A nut-lock composed of the strip K, provided with rectangular openings adapted to embrace and prevent nuts from turning therein, and provided with smaller openings, a bolt passing through each of said openings, a nut screwed on each of said bolts, overlapping said plate K, said plate K being provided with tongues forming an integral part thereof, one located on each side of, and locking each of, said last-mentioned nuts, and slots in said plate K adjacent to, and at right angles with, the ends of said tongues, substantially as set forth.

3. A nut-locking plate, consisting of the strip K, having rectangular openings which receive the nuts of all the bolts, save two, and provided with smaller openings to receive two other bolts, nuts adapted to be screwed on said last-mentioned bolts and against the strip K, tongues cut integral with said plate, one on each side of each smaller opening, and slots adjacent to, and at right angles with, the free ends of said tongues, substantially as set forth.

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

EDMUND G. BAXTER.

Witnesses:
R. ROBERTS,
W. H. KILDOW.