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E. J. CATLIN & L. H. KILBOURNE.

NUT LOCK.

(Application filed Jan. 14, 1901.)

(No Model.)

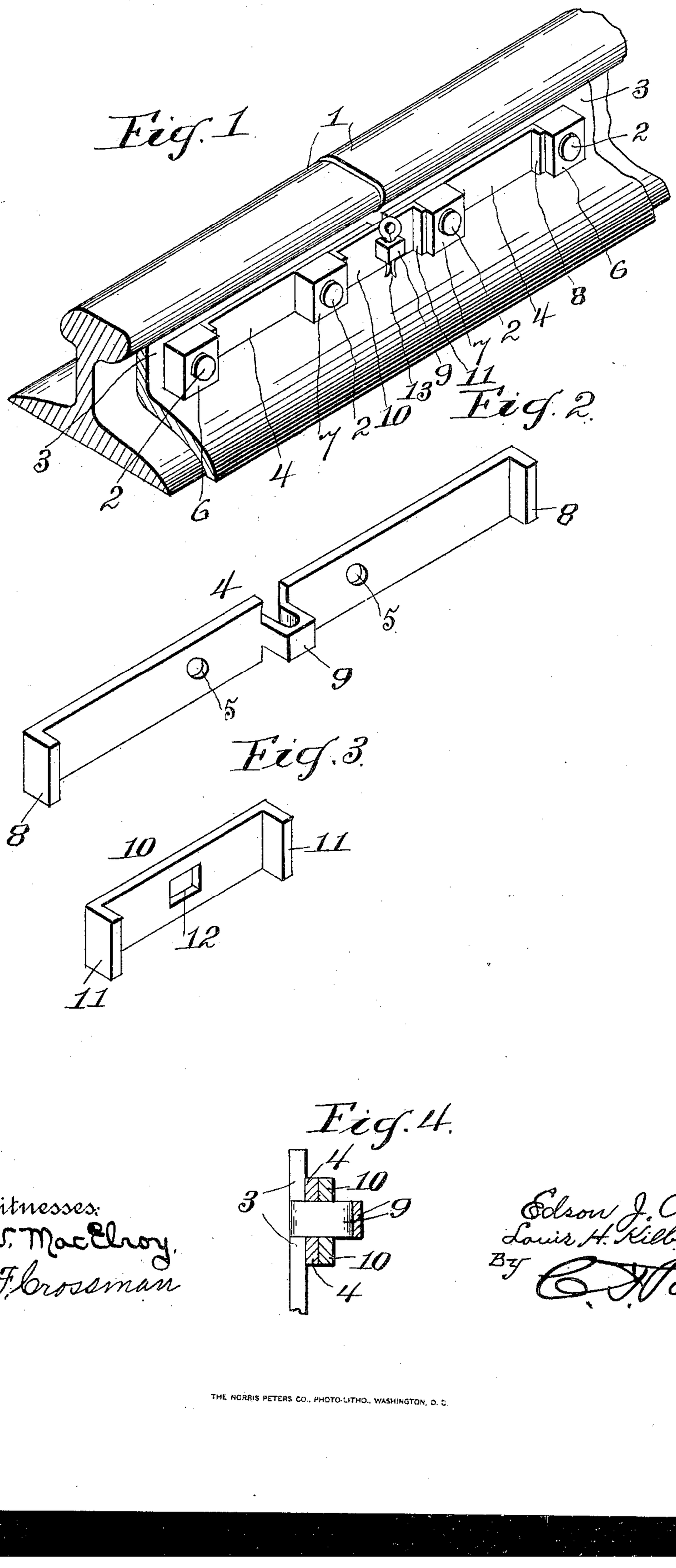

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

EDSON J. CATLIN AND LOUIS H. KILBOURNE, OF WELLSBORO, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 672,260, dated April 16, 1901.

Application filed January 14, 1901. Serial No. 43,178. (No model.)

To all whom it may concern.

Be it known that we, EDSON J. CATLIN and LOUIS H. KILBOURNE, citizens of the United States, residing at Wellsboro, in the county of Tioga and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

This invention relates to nut-locks, and particularly to a device for locking railway-joint nuts to the fish-plates of railway-rails.

The invention consists in the novel construction and arrangement of parts, and resides, essentially, in a plate having one or more offsets or projections peculiarly formed therein and a nut plate or plates having an aperture through which the said projections extend. In all nut-locks of this character known to us the plates have a staple or pin and are without flanges. The staple or pin is not sufficient to withstand the strain, and the flangeless ends have not sufficient bearing upon the nuts to keep them from turning when they become loose, for a slight loosening of the nuts will permit them to turn past said ends. It is to overcome these objections and disadvantages that our invention is designed.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a railway-joint with our invention applied. Fig. 2 is a perspective view of the plate having the offset. Fig. 3 is a perspective view of the nut-plate. Fig. 4 is an enlarged vertical section through the offset with the plates assembled and the key removed.

The same numeral references denote the same parts throughout the several views of the drawings.

The railway-rails 1 are of the ordinary form and have the usual bolt-holes for bolts 2, which extend through a common fish-plate 3. The plate 4 has holes 5, through which the bolts 2 extend to receive the nuts 6 and 7, and said plate has end flanges or nut-abutments 8 at right angles to the front of the plate. Where four bolts are employed the plate 4 has a reduced rectangular offset or U-shaped projection 9 midway the length of the plate and extending outward centrally from the front face of said plate. The plate 4 is reduced in width at the point where the offset occurs, and the offset is struck up or formed by bending the said reduced portion outwardly from the plate. Thus two plate portions are formed, rigidly joined by the projection 9, the bolt-holes 2 being about intermediate the abutment-flanges 8 and the projection 9. These flanges 8 lock the outer nuts 6 against rotation and fix the nuts (either square or other shape) to the bolts.

The nut-locking plate 10 is provided with end flanges 11, projecting at right angles from the front face of the plate, and has a rectangular opening 12 to fit the projection 9. This plate 10 is held upon the projection 9 by the spring-key 13, having shoulders to prevent its displacement, and the flanges 11 engage the nuts 7 and prevent their turning or becoming loose.

In assembling the parts the nuts 6 are run up hard against the fish-plate, the plate 4 is placed against the fish-plate with its flanges engaging the nuts 6, and the nuts 7 are screwed up fast against the plate 4. Then the plate 10 is hung on the projection 9, with its flanges engaging the nuts 7, and the key is driven through the protruding end of the projection to fix the plate 10 against the plate 4. It will be seen that the plate-flanges afford a considerable bearing for the nuts, so that in case they become loose they are still held against turning by the said flanges. It is obvious that one, two, or more of the projections or offsets may be formed on the plate and that for each projection an apertured plate is provided. The plate having the projection may be made of such thickness and strength as to warrant the dispensation of the fish-plate, and in joining beams or other structural elements our two plates may be employed to great advantage.

What we claim as new, and desire to secure by Letters Patent, is—

In a nut-lock, the combination, with the

two-part plate connected by a reduced portion thereof and having a keyway, and nut-abutment flanges at the ends of the plate portions, of the plate having an opening to fit said reduced portion, nut-abutment flanges on each end of the plate, and a suitable key to fasten the plates together.

In witness whereof we hereunto set our hands in the presence of two witnesses.

EDSON J. CATLIN.
LOUIS H. KILBOURNE.

Witnesses:
NELSON H. ROBBINS,
FRANK WATKINS.