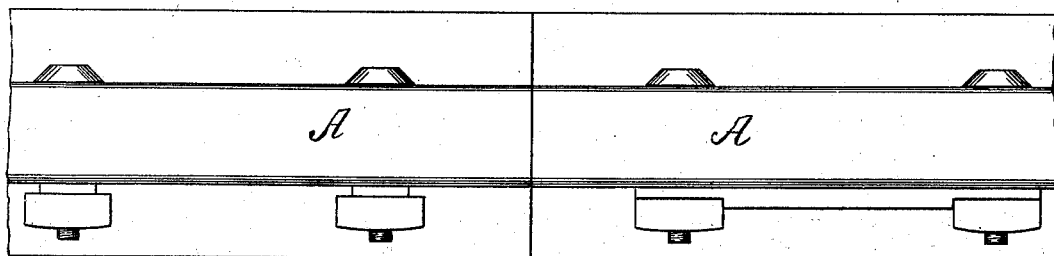


L. SPAIN.
Nut-Lock.

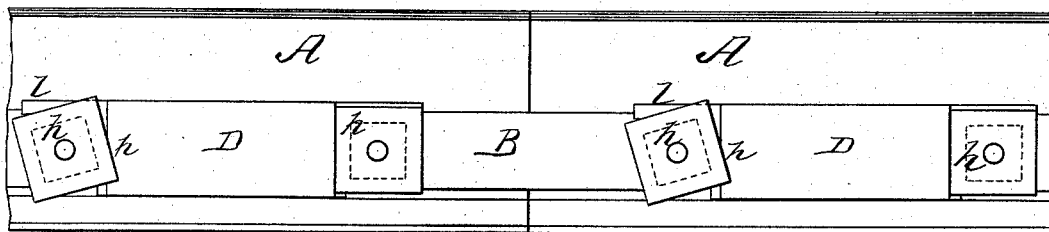
No. 216,489.

Patented June 10, 1879.

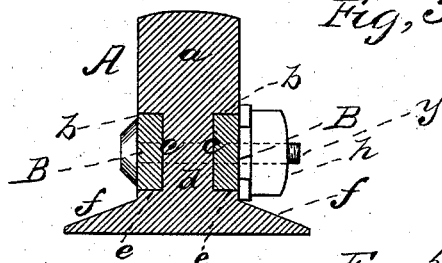
Fig, 1.



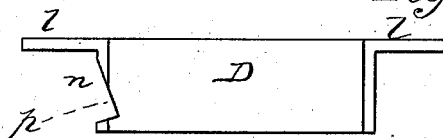
Fig, 2.



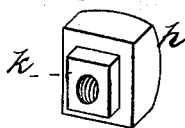
Fig, 3.



Fig, 5.



Fig, 4.



WITNESSES

Mary A. Utley.
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INVENTOR

Lanson Spain,
by E. W. Anderson
his ATTORNEY

UNITED STATES PATENT OFFICE.

LANSON SPAIN, OF NORTH LEWISBURG, OHIO.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **216,489**, dated June 10, 1879; application filed April 12, 1879.

To all whom it may concern:

Be it known that I, LANSON SPAIN, of North Lewisburg, in the county of Champaign and State of Ohio, have invented a new and valuable Improvement in Nut-locks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of my improved railway joint and lock. Fig. 2 is a side view thereof. Fig. 3 is a cross-sectional view, and Figs. 4 and 5 are details.

This invention has relation to railroad-rails and connections therefor; and it consists in a nut-lock composed of a nut having square reduced portions on one side, and a locking-slide having end rabbets with horizontal projections on its upper edge, and a locking-notch at one end in the lower portion of the rabbet, as hereinafter shown and described.

In the accompanying drawings, the letter A designates the rails, and B the fish-plates spanning the joints of said rails, and usually let into recesses *c* between the tread *a* and base-flange *f*. The recesses *c* may be rectangular, if desired, and the plates may be of a form to fit snugly therein; but this is not indispensable, as my nut-lock may be used with any and every description of fish-plates when fastening bolts and nuts are employed.

The screw-bolts are of the usual character, and are slipped through the usual bolt-holes and slots of the fish-plates and rails. The ends of the bolts are secured by means of nuts *h*, which are provided on their inner portions with squared rabbets or necks *k*, these reduced inner portions of the nuts being in contact with the fish-plates when turned home on the bolts. The nuts are turned square, and are secured by the locking-plates D, which are of sufficient length to span the space between two successive nuts.

At each end of the plate a square reduction or rabbet, *n*, is formed, having extending from

its upper portion, in line with the top of the plate, an arm or projection, *l*. In the lower portion of the left-hand rabbet of each plate is formed a notch, *p*. The nuts being turned home square, as stated, each plate is let vertically in between two nuts in such a manner that its shoulders will engage with the edges of the outer or enlarged portions of the nuts, while its rabbeted or reduced portions will extend into the inner vertical portion of the rabbet of the nut. In this position the plate is supported in a true and square position, as its lower edge extends downward sufficiently to rest on the rail-flange. The lock is completed by slightly loosening or turning backward the left-hand nut, so that its corner will enter the notch of the rabbet of the locking-plate. The nuts are thus securely fastened as well as the plate.

In order to remove the locking-plate, the left-hand nut must be tightened a little, so as to bring it into squared position again, when the locking-slide can be lifted up and out of contact with both nuts. These locking nuts and slides can be used with any fish-plate.

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

1. The nut-lock consisting of the rabbeted nuts *h*, having square reduced portions *k*, and the locking-slide D, having end rabbets, *n*, with horizontal projections *l* from the upper portions of said rabbets, and a locking-notch, *p*, in the lower portion of the rabbet, substantially as specified.

2. The combination, with the rails A, fish-bars B, and through-bolts *y*, of the nuts *h*, having rabbets *k*, and the slide-plate D, having squared rabbets *n*, arms *l*, and a notch, *p*, at the lower part of the rabbet, arranged and operating substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LANSON SPAIN.

Witnesses:

CHARLES E. EVANS,
WILLIAM MCADAMS.