(No Model.)

C. IVES.

NUT LOCK.

No. 479,511. Patented July 26, 1892.

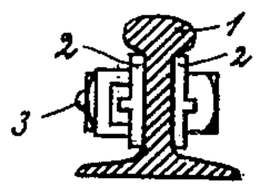

Fig: 1.

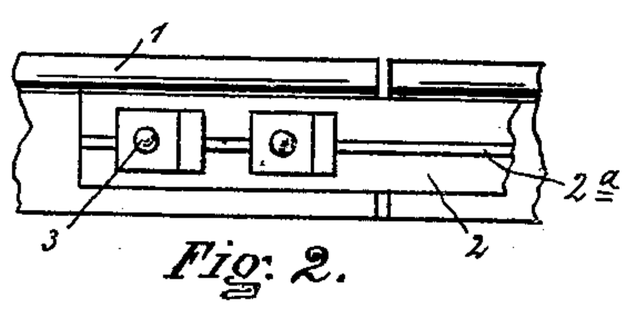

Fig: 2.

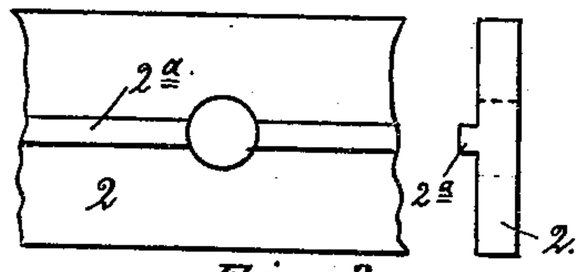

Fig: 3.

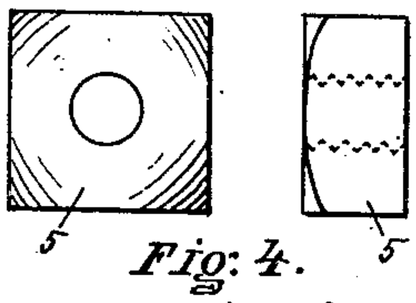

Fig: 4.

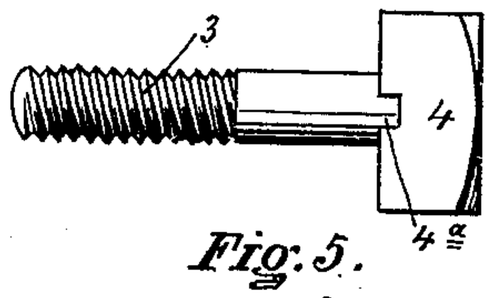

Fig: 5.

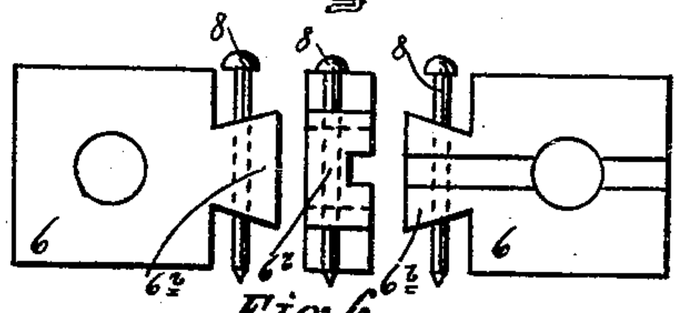

Fig: 6.

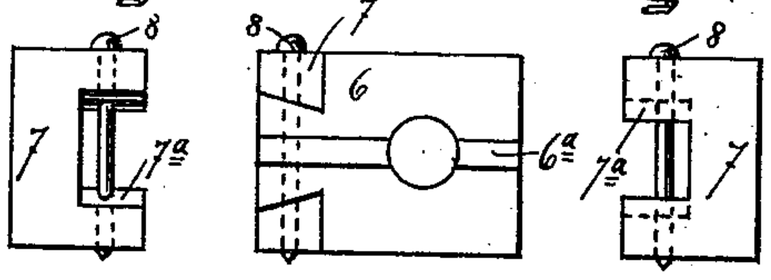

Fig: 7.

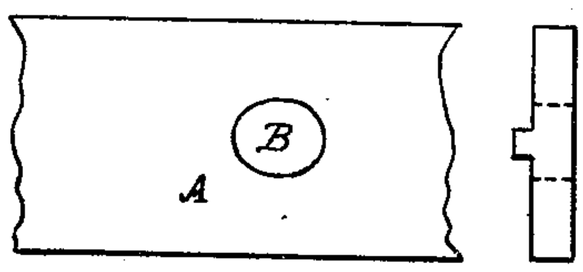

Fig: 9.

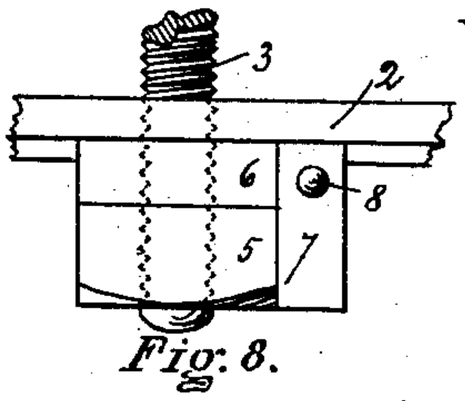

Fig: 8.

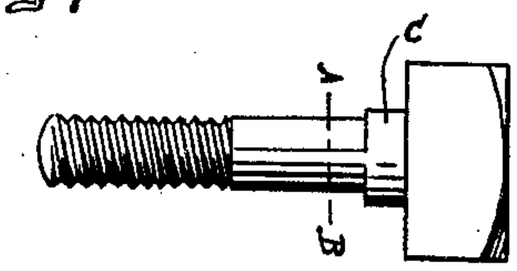

Fig: 10.

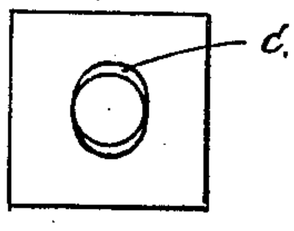

Fig: 11.

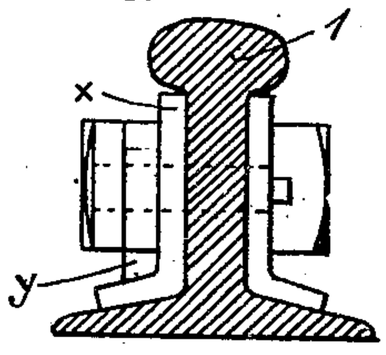

Fig: 12.

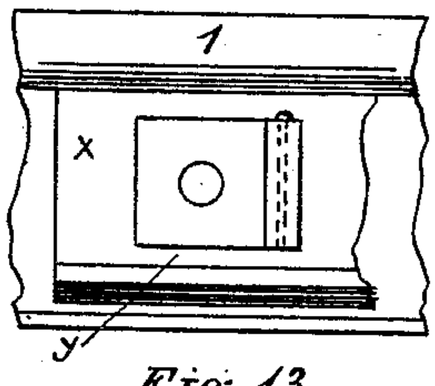

Fig: 13.

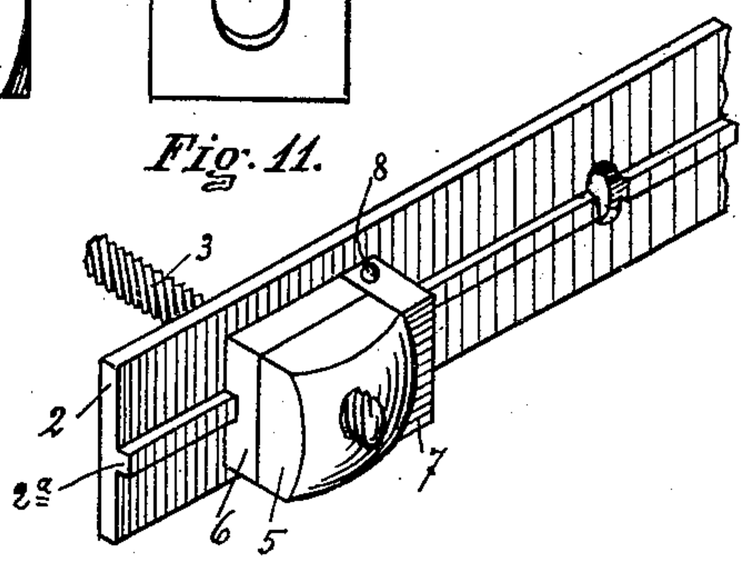

Fig: 14.

WITNESSES.
Rich. A. George.
M. L. Robinson

INVENTOR.
Charles Ives
By Risley & Levy
Attys

UNITED STATES PATENT OFFICE.

CHARLES IVES, OF CLINTON, NEW YORK.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 479,511, dated July 26, 1892.

Application filed October 26, 1891. Serial No. 409,790. (No model.)

To all whom it may concern:

Be it known that I, CHARLES IVES, of Clinton, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the letters and numerals of reference marked thereon, which form part of this specification.

My invention relates to improvements in nut-locks.

In the drawings which accompany and form a part of this specification and in which similar letters and numerals of reference refer to corresponding parts in the several figures, Figure 1 shows a cross-section of a railway-rail, an end view of fish-plates, and my nut-lock. Fig. 2 shows a side view of the same parts shown in Fig. 1. Fig. 3 shows a side and end view of a fish-plate having a central longitudinal rib. Fig. 4 shows a nut. Fig. 5 shows the bolt. Fig. 6 shows both sides and end of the lock-body. Fig. 7 shows both sides of the locking-piece, together with an inner face of the lock-body combined with the locking-piece. Fig. 8 shows a top view of a fish-plate, a portion of bolt, nut, and lock in combined position. Fig. 9 shows the ordinary form of one of a pair of fish-plates. Fig. 10 shows a bolt adapted to be used with plate shown in Fig. 9. Fig. 11 shows a section of bolt, taken on a line A B, Fig. 10, looking toward the head. Fig. 12 shows a modified form of a lock in combination with an angle fish-plate. Fig. 13 shows a side elevation of the same. Fig. 14 shows in perspective the same parts shown in Fig. 8.

Referring more particularly to the reference letters and numerals marked on the drawings in a more specific description, 1 indicates a railway-rail, on which is mounted at the joint fish-plates 2 2, provided with longitudinal ribs 2^a and suitable perforations for the passage of bolt 3. Bolt 3 is provided with head 4, having recesses 4^a, adapted to receive the rib 2^a. On the screw-threaded end of bolt 3 is applied nut 5. The lock-body 6 is provided with a hole for receiving the bolt, and a longitudinal groove 6^a on its inner face passing on a line through the center of the bolt-hole. The body 6 is also provided with a dovetail projection 6^b, projecting from the body, which body is preferably of a shape to coincide with the nut. The projection 6^b is adapted to engage locking-piece 7, which is provided with a dovetailed notch 7^a and abuts, when in position, against one of the sides of the nut. Through the piece 7 and projection 6^b is provided a pin-hole to receive the pin 8. The rib 2^a may be dispensed with and an angle fish-plate used, in which case the groove 6^a is omitted in the piece 6, and it is provided with a downwardly-extending projection, as shown at *y*, adapted to engage with the flange of the fish-plate.

In case of the use of an ordinary fish-plate, as shown at A, which is usually provided with an oval opening, as B, I use the bolt shown in Figs. 10 and 11, having shoulder C, adapted to substantially fill the opening B.

In use it will be understood that the fish-plates 2 2 are first applied to the joint, the bolts 3 inserted through the openings therein and in the rail, and the notches 4^a in the head brought into engagement with the rib 2^a. The lock-body is then applied, the groove on the inner face being made to engage on rib 2^a, and the nut is applied and set down and left with one side in position to allow the locking-piece 7 to be applied, and finally the pin 8 is inserted.

The operation of the modified forms of construction will be understood without special description, and other alterations and modifications may be made without departing from the equivalents of my construction.

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

1. The combination of fish-plates, each having a longitudinal rib thereon, perforations for bolts therein in line with the ribs, a bolt having recessed head adapted to engage the rib on one plate, a lock-body having a groove adapted to engage the rib on the other plate and a dovetailed projection from the side, a nut, and a locking-piece adapted to engage on the dovetailed projection and abut against the side of the nut, substantially as set forth.

2. The combination, with a bolt and nut, of a lock-body adapted to engage the surface on which it rests and provided with dovetailed projection to one side of the surface on which the nut engages the lock-body, and a locking-piece adapted to engage on the dovetailed projection and abut against the side of the nut, substantially as set forth.

3. The combination, with a bolt having a head adapted to engage the surface with which it contacts and prevent rotation thereof, of a nut and nut-lock consisting of a body portion adapted to engage the surface on which it rests and having a dovetailed projection to one side of the body on which the nut engages, a locking-piece adapted to engage on the dovetailed projection, and a pin for securing the body and locking-piece together, substantially as set forth.

4. The combination, with a rail, of fish-plates 2 2, having ribs 2^a, a bolt 3, having a head 4 with recess 4^a, a nut 5, lock-body 6, having a groove 6^a and dovetailed projection 6^b, a locking-piece 7, which abuts against the side of the nut, and pin 8, substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

CHARLES IVES.

Witnesses:
M. E. ROBINSON,
H. W. BOOTH.