A. BROWN & A. G. HUEY.

NUT-LOCK.

No. 190,736. Patented May 15, 1877.

Fig. 1.

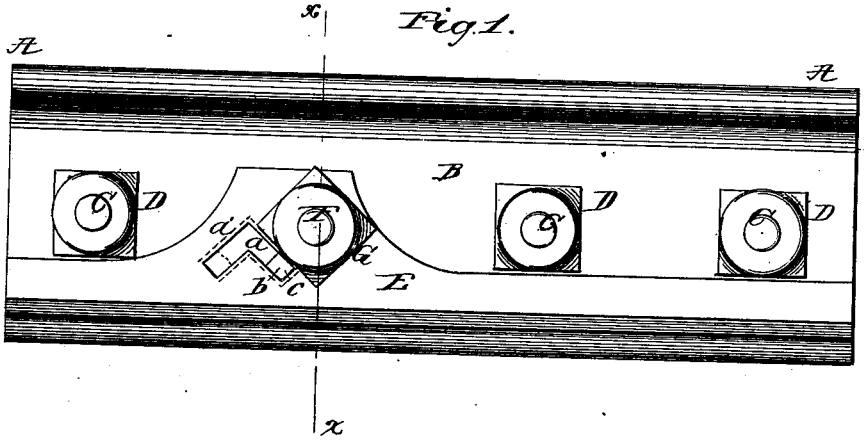


Fig. 2.

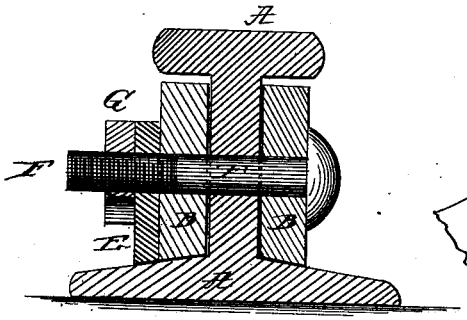


Fig. 3.

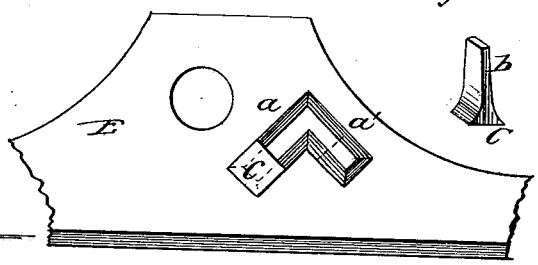
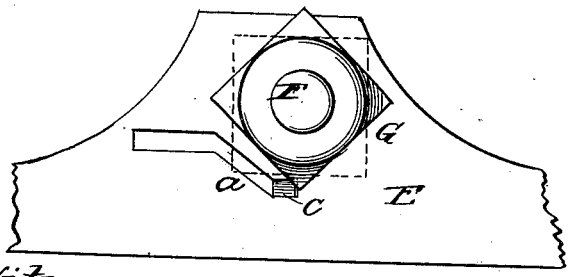


Fig. 5

Fig. 4.



Witnesses

Fred. G. Dieterich

S. M. Pool

Inventors.

Alexander G. Huey.

Anderson Brown.

By DeWitt C. Allen

atty

UNITED STATES PATENT OFFICE.

ANDERSON BROWN AND ALEXANDER G. HUEY, OF BLOOMINGTON, ILLINOIS, ASSIGNORS OF ONE-THIRD THEIR RIGHT TO BOOTH N. CURTISS, OF SAME PLACE.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **190,736**, dated May 15, 1877; application filed March 24, 1877.

To all whom it may concern:

Be it known that we, ANDERSON BROWN and ALEXANDER G. HUEY, of Bloomington, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Nut-Locks; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a side view of our invention. Fig. 2, a cross-section through the line *x x* of Fig. 1. Figs. 3, 4, and 5 are detail views.

This invention relates to improvements in devices for securing the nuts of the track-bolts of rail-joints; and the invention consists in the construction and arrangement of devices, as will be hereinafter fully described.

A in the drawing represents a section of a T-rail, and B B the fish-plates at each side thereof. C represents a series of track-bolts passing through the rail and fish-plates, and D the nuts therefor.

E is the lock-bar, provided with a straight lower edge to bear against the rail-foot, and of the construction and form shown in Fig. 1, so as to fit close against one of the fish-plates, and between the rail-foot and the nuts D on the track-bolts C, which prevents the nuts D from turning or unscrewing when the lock-bar is secured in position by the devices hereinafter described.

F is another track-bolt, which passes through the rail, fish-plates, and lock-bar E, and G its nut. The lock-bar is provided with a diagonal slot, *a*, having an offset, *a'*, in which the key *b* rests when the nut G is being tightened. This slot *a a'* upon the inner side of the lock-bar is beveled outwardly, as shown in Fig. 3, and in this slot from the back side of the lock-bar is inserted the key *b*, having a head, *c*, which retains it in the slot when the lock-bar is secured in position; but allows it to have free play up and down in said slot.

The fish-plates and rail being secured in position by the bolts C and nuts D, the lock-bar is placed in position, which prevents the nuts D from turning. The lock-bar is then secured in position by the track-bolt F and nut G. While the nut G is being screwed tight upon the track-bolt the key *b* is slid around into the offset *a'* of the slot *a*, out of the way of the wrench and nut, until the nut is screwed perfectly tight against the lock-bar. The key is then slid around in the slot to its proper position, which is at a point opposite or by the center of the bolt F, as clearly shown in Fig. 1, and is then secured in place by a slight backward movement of the nut G, and the key in turn preventing the nut from unscrewing any farther.

We do not desire to limit our invention to a diagonal slot with an offset in it, as any form of slot with an offset would accomplish the same purpose, such as a U form or curved slot, or the form shown in Fig. 4.

We are aware that a nut-lock having a washer provided with a tapering slot flaring inwardly, and a bar with beveled edges, and a projecting stud inserted in said slot from behind the washer is old, and such we do not claim, broadly, as our invention; but

We claim as our invention—

1. The combination, with the bolt F and nut G, of the lock-bar provided with a slot, *a*, having an offset, *a'*, in which the key rests while the nut is being tightened, and a key, *b*, which can be moved freely within said slot *a a'* when the lock-bar is secured in position, the several parts constructed and arranged in the manner substantially as and for the purpose herein shown and described.

2. The combination, with the rail, fish-plates, and bolts and nuts C D, of the bolt and nut F G, lock-bar E, having slot *a* and and offset *a'*, and key *b*, the several parts constructed and arranged in the manner herein shown and described, whereby the several nuts are secured in position, as specified.

ANDERSON BROWN.
ALEXANDER G. HUEY.

Witnesses:
THOS. SLADE,
WM. P. MCMURRY.