(Model.)

G. P. LOOMIS.

NUT LOCK.

No. 281,196. Patented July 10, 1883.

Fig. 1.

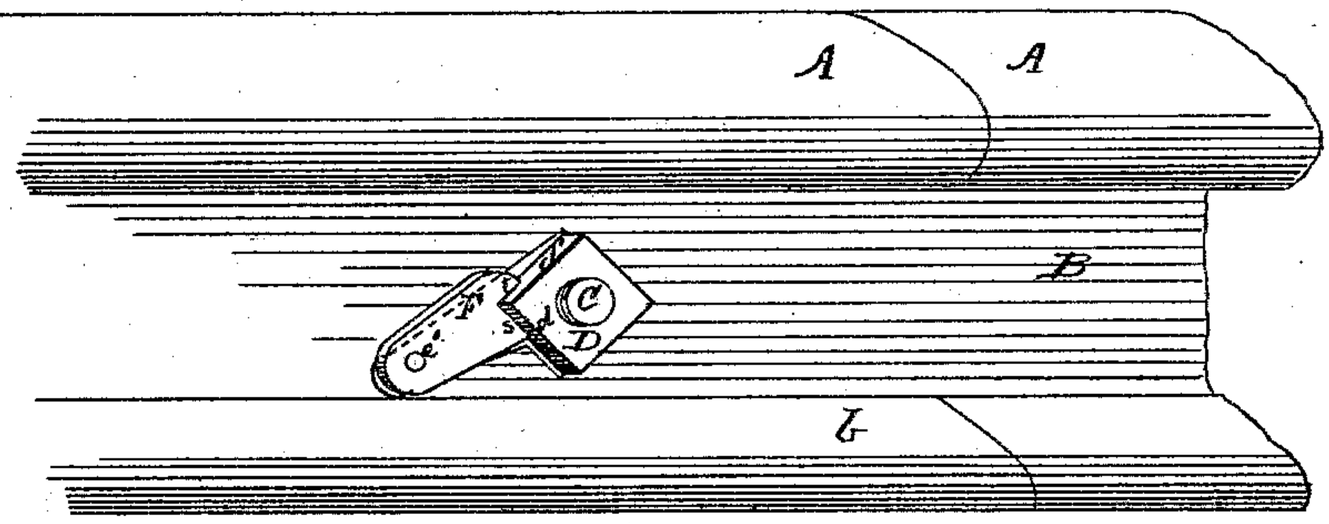


Fig. 2.

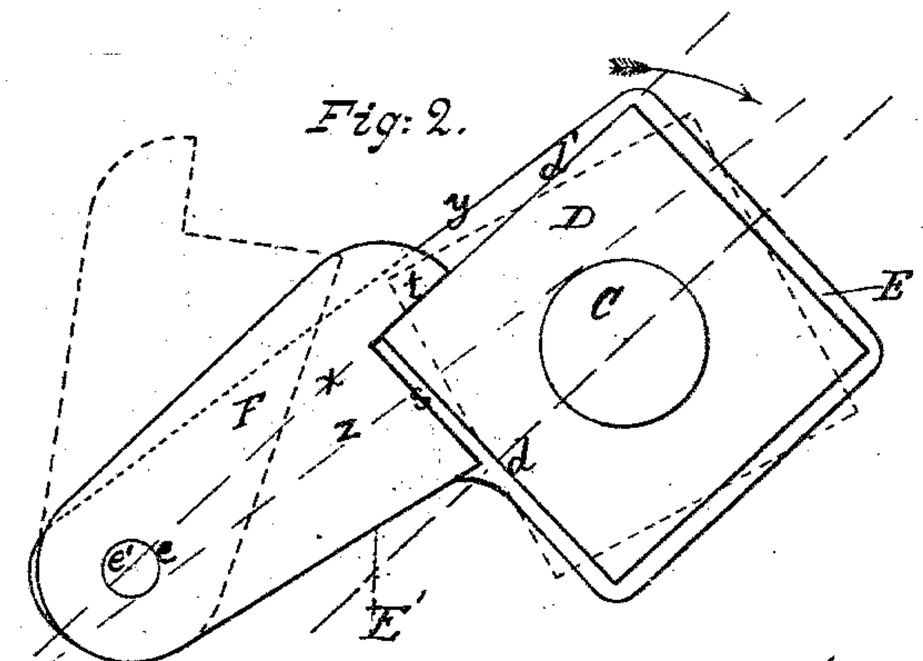
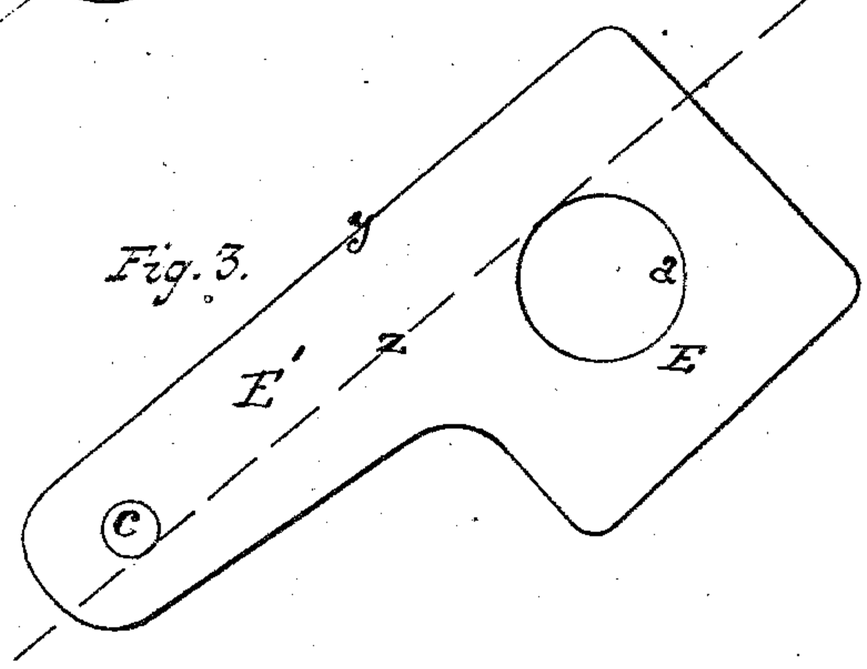


Fig. 3.



Witnesses:
Richard P. Dumary
Calvin Shaffer

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Inventor.
by his Atty Alx. Bellamy

UNITED STATES PATENT OFFICE.

GEORGE P. LOOMIS, OF ALBANY, NEW YORK.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 281,196, dated July 10, 1883.

Application filed May 17, 1883. (Model.)

To all whom it may concern:

Be it known that I, GEORGE P. LOOMIS, a citizen of the United States, residing in the city of Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Nut-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to nut-locks to be used in connection with the bolts and nuts which are applied for the retention of fish-bars on railway-rails.

The object of my invention is to produce a simple and cheap nut-lock for the purpose stated, and my special improvement is hereinafter pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the nut-lock as applied to the bolt and nut of a fish-bar. Fig. 2 is an elevation of the nut-lock and nut. Fig. 3 is an elevation of the washer.

My nut-lock is composed of a flat washer-plate, a flat button or locking-plate, and a rivet uniting the two.

In the drawings, the letters A A designate abutting rails.

B is the fish-plate; C, the bolt for retaining said fish-plate to the rail.

E represents the washer-plate, which has a square portion approximating the size of the nut with which it is to be used, and an extension, E′, which forms a prolongation of one side of the plate, but is cut away at the other side. This form of the washer allows of the cutting of two blanks from a rectangular piece of metal with very little waste, the extension E′ being about half the width of the square portion. The square portion of the washer is centrally perforated at *a* for the passage of the bolt. The washer is also perforated at *c* for a rivet. The line *z*, which is parallel with the side *y* of the washer, is tangential to the circumference of perforation *a* on one side and of perforation *c* on the opposite side. The locking-piece or button F is pivoted to the extension E′ of washer E by a rivet passing through hole *e* in the button and hole *c* in the washer. A rectangular notch is formed in one corner of this button. One side of this notch is designated by the letter *s*, the other side by *t*.

D represents the nut, which is screwed onto bolt C after the washer E has been placed thereon. The nut is turned in the direction of the arrow to screw it on the bolt. The button F is turned back to permit the nut to be screwed home. The nut is turned a little past its locked position, as shown in dotted lines, Fig. 2. The button F is then swung toward the nut until the side *t* of the notch bears against the side *d′* of the nut, or against the corner thereof. The side *s* of the notch in plate F must be at such distance from the rivet as to permit a little play between the side *d* of the nut and said side *s* of the button, but not so far from bolt C (when the button is swung toward the nut) as to permit the corner of the nut to pass the side *s* without engagement therewith. When the button F is thus swung into engagement with the nut, said nut cannot be turned backward because of the engagement of its corner with the side *s* of the button. The button is held from going too far by the engagement of the side *t* of its notch with side *d* of the nut. To loosen the lock the nut is tightened to the position shown in dotted lines and the button then thrown back. The extension E′ of the washer is of such length as to find a bearing on the flange *b* of the rail, as shown in Fig. 1, so as to prevent the turning of the entire lock backward.

I am aware that numerous nut-locks have been invented prior to my invention, some of them being similar in construction and some in their mode of operation.

The advantages I gain by my construction are in the economy of production and facility of application.

What I claim is—

1. A nut-lock consisting of a flat washer having a rectangular portion perforated for the passage of the bolt, and the extension E′, of about the form and proportions hereinbefore described, a rivet, and a flat locking button or plate, F, pivoted to the washer at *c* by the rivet, said plate F being notched at *s t*, as described, and for the purpose stated.

2. The combination, with a railway-rail and fish-plate, of a nut-lock consisting of a flat

washer having a perforated rectangular portion, with the extension E′, as described, a flat button, F, of the form shown and described, pivoted to the washer-plate at *c*, said extension E′ of the washer-plate being of such length as to find a bearing on the flange *b* of the rail when the nut-lock is adjusted in position, all as shown and set forth.

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

GEORGE P. LOOMIS.

Witnesses:
SAMUEL W. WHITMORE,
HOWARD HENDRICKSON.