A. W. BODELL.

NUT LOCKS.

No. 195,203. Patented Sept. 18, 1877.

Fig 1

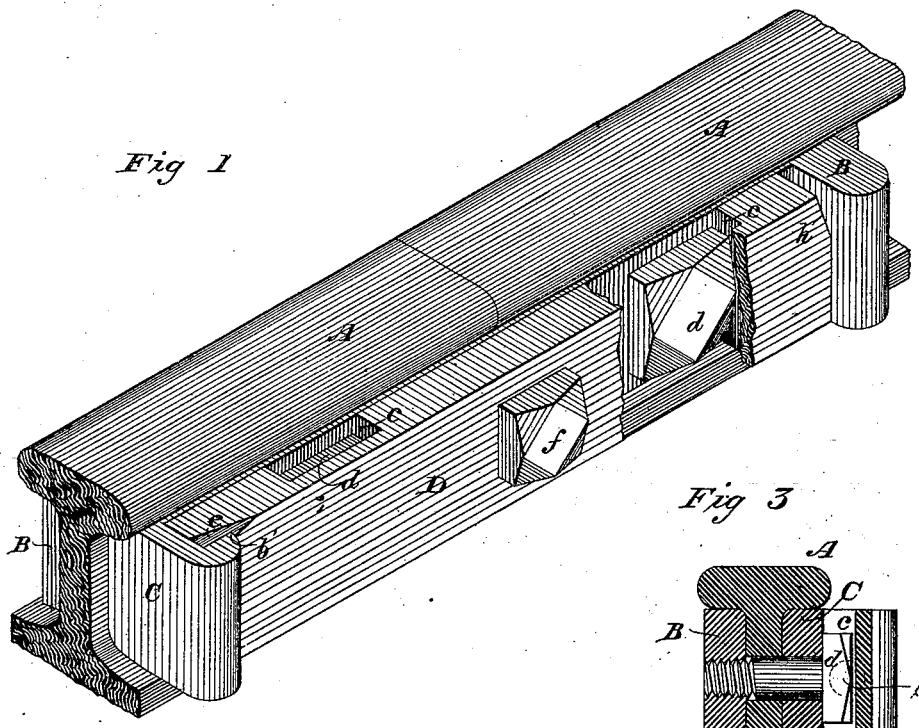


Fig 3

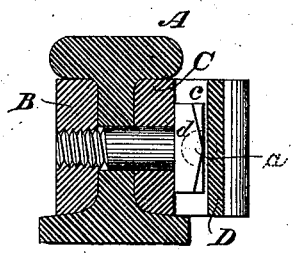


Fig 4

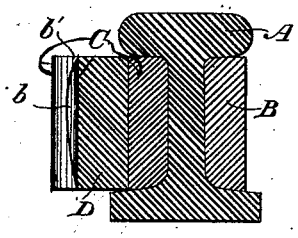


Fig 5.

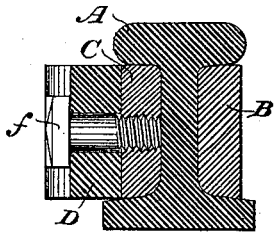
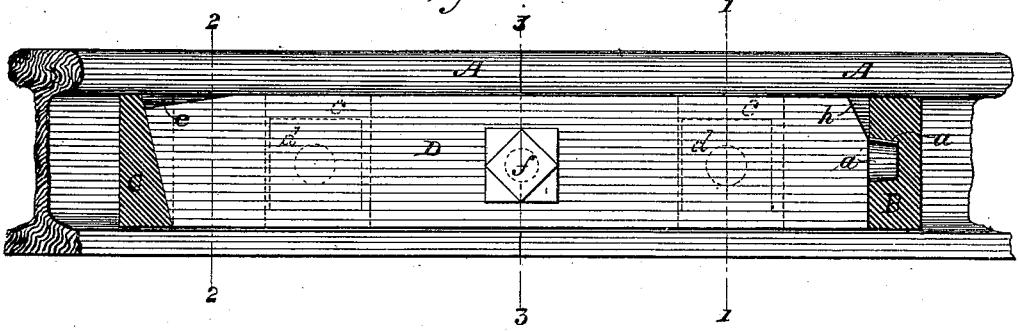


Fig 2.



WITNESSES

Wm. A. Skinkle

R. Stahl

INVENTOR

Allen W. Bodell.

By his Attorneys.

Baldwin, Hopkins & Peyton

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALLEN W. BODELL, OF GLENFORD, OHIO.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **195,203**, dated September 18, 1877; application filed April 11, 1877.

To all whom it may concern:

Be it known that I, ALLEN W. BODELL, of Glenford, in the county of Perry and State of Ohio, have invented a new and useful Improvement in Nut-Locks, of which the following is a specification that will enable others skilled in the art to which my improvement relates to make and use the same, reference being had to the accompanying drawings.

My invention relates to means of preventing the screw-bolts employed to secure fish-plates upon the sides of railroad-rails, at their junction, from turning and unscrewing; and it consists in the devices and combinations of devices hereinafter specifically set forth and claimed.

In the drawings, Figure 1 is a perspective view of my invention, showing the ends of two rails, and the fish-joint for connecting them, with the outer or locking plate partly broken away, in order to show more fully the recess and bolt-head therein. Fig. 2 is a side elevation of the same, partly in section, through the ears or projections on the ends of the outer fish-plate, showing the manner of supporting the locking-bar. Fig. 3 is a transverse section therethrough on the line 1 1 of Fig. 2. Fig. 4 is a similar section on the line 2 2 of Fig. 2. Fig. 5 is a similar section on the line 3 3 of Fig. 2.

In these drawings, A indicates the rails, B the inside fish-plate, and C the outside fish-plate. This outside fish-plate should have its ends turned outward in such a manner as to afford means of holding the locking bar or yoke in place. In one of these outward projections there may be a hole or socket, *a*, to receive a tenon or projection, *a'*, on one end of the locking-bar, and in the other projection I form a groove to receive the other end of the locking-bar. This groove I incline on its bottom, to correspond with a like incline of the end of the locking-bar, and to receive the same. This construction prevents the locking-bar from falling through the groove. I may also curve one side of the wall of the groove, as seen at *b*, Fig. 4, leaving a point, *b'*, at the top of the groove, where the width of the groove should be only just sufficient to admit the end of the locking-bar; but this curve may be dispensed with.

D indicates the locking bar or yoke, provided with transverse slots *c* on one side of it, of a width and in position to receive the heads of the screw-bolts *d*. The inclined end of this bar is beveled or cut away at *e*, in order that when the bar is in position the point *b'*, on the projection of the outside fish-plate, may be struck down to fasten it. Another means of fastening the bar in place may be a screw-bolt, as shown at *f*.

The tenoned end of the locking-bar is chamfered at *h*, for convenience of inserting the tenon into its socket. Instead of having a tenon and socket, I might use an inclined groove at both ends like that shown at one end.

The practice of my invention is as follows: I first place the fish-plates in position, and insert the screw-bolts *d d*, of which there may be two or more, and screw them home. These bolts are only threaded on their ends to fit screw-holes in the inside fish-plate, and require no nuts. I then insert the tenon on the locking-bar into the hole *a* in the projection of the fish-plate, and bring the opposite end down into the groove in the other projection, the slots in the bar being slightly larger than the bolt-head to admit of this motion. I then insert the screw-bolt *f*, or, by a blow, strike down the point *b'*, or both, and the permanent prevention of turning the screw-bolt is accomplished.

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

1. The outside fish-plate C, having projections provided, respectively, with a socket and an inclined groove, substantially as specified.

2. The outside fish-plate C, having the projections provided, respectively, with a socket and inclined groove, when the groove has a curved side wall and point *b'*, substantially as specified.

3. The locking-bar D, provided with the transverse side slots *c*, substantially as specified.

4. The locking-bar D, provided with the slots

c, and having on its ends, respectively, the tenon and incline, substantially as specified.

5. The locking-bar D, provided with the slots *c*, and having on its ends, respectively, the tenon and incline and bevel *e*, substantially as specified.

6. The combination of the outside fish-plate and locking-bar, provided with transverse side slots, constructed and operating together substantially as specified.

In testimony whereof I have hereunto subscribed my name.

ALLEN W. BODELL.

Witnesses:

F. STITH,

BALTIS DE LONG.