

No. 617,672.

Patented Jan. 10, 1899.

J. W. B. COOK.

NUT LOCK.

(Application filed July 22, 1898.)

(No Model.)

FIG. 1.

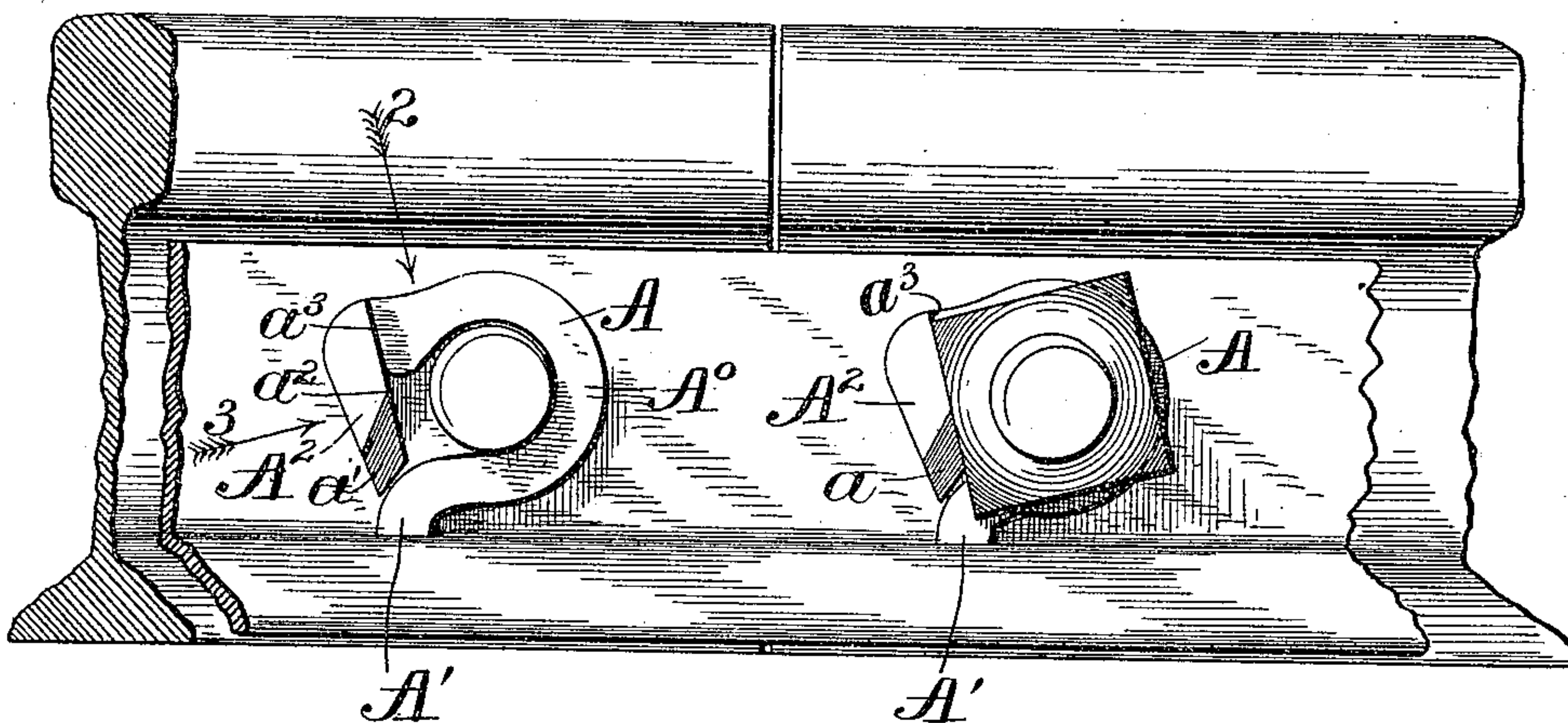


FIG. 2.

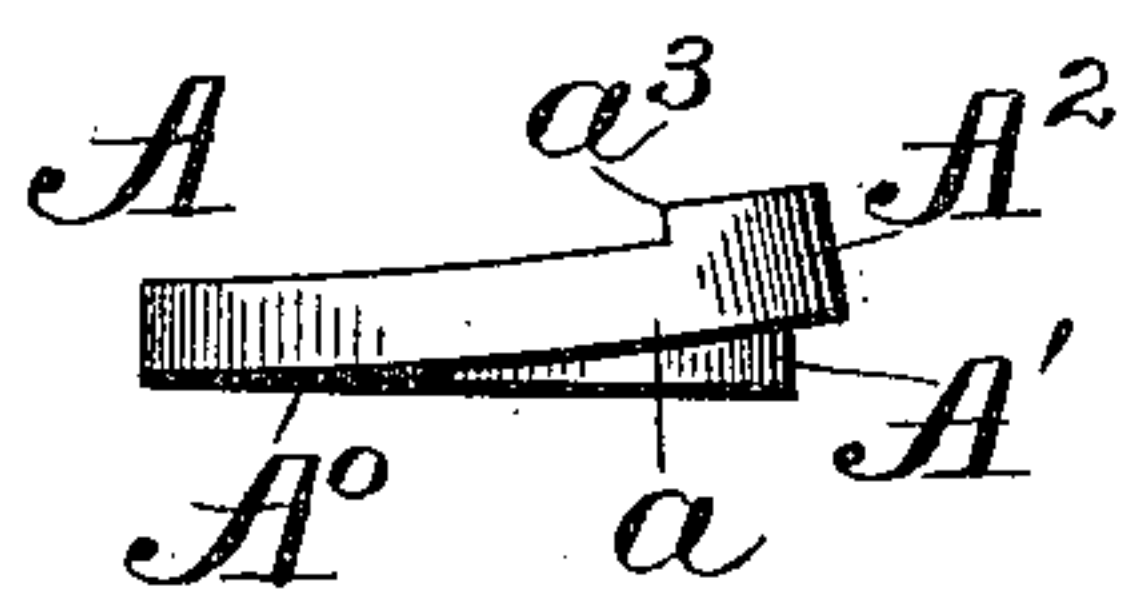
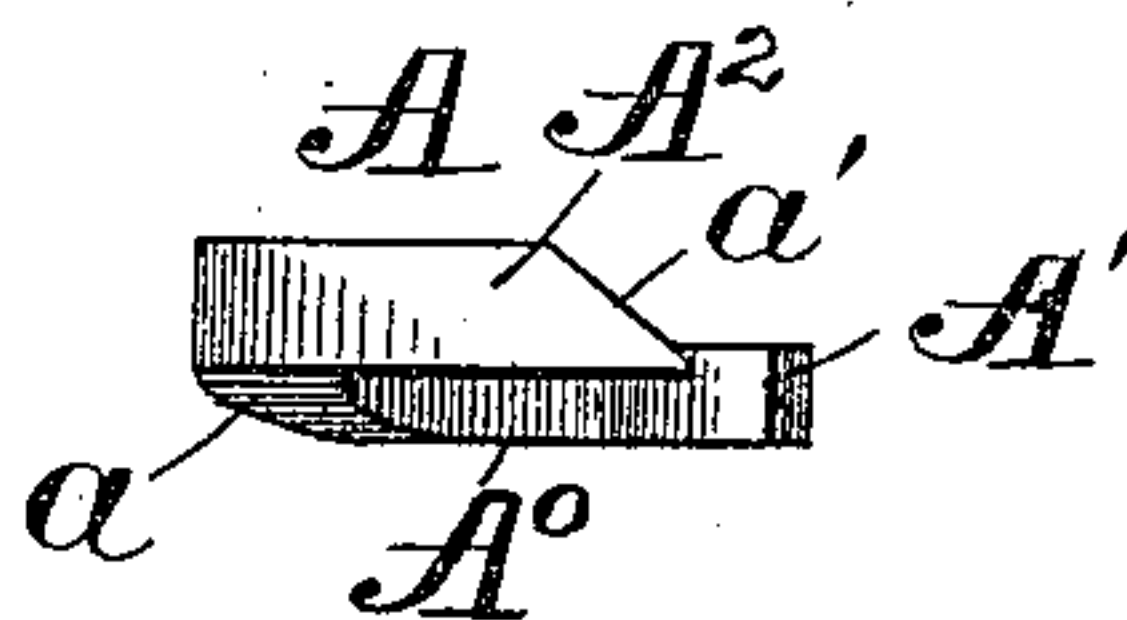


FIG. 3.



Witnesses

Percy C. Bowen.
John Chalmers Wilson.

Inventor

J. W. B. Cook.
by Wilkinson & Fisher.
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN W. B. COOK, OF CAMDEN, ARKANSAS.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 617,672, dated January 10, 1899.

Application filed July 22, 1898. Serial No. 686,591. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. B. COOK, a citizen of the United States, residing at Camden, in the county of Ouachita and State of Arkansas, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in nut-locks for use principally upon railroad-tracks to prevent the jarring of passing trains from shaking loose the nuts on the bolts used to bind the rails together, the object being to provide a nut-lock which will at once be cheap and simple and serve its purpose well when in use.

My invention consists in the novel form of nut-lock hereinafter described and claimed, and illustrated in the accompanying drawings, wherein the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a fragmentary side elevation of a rail-joint fitted with my nut-lock, showing at the left and right, respectively, the lock before and after the nut has been screwed on the end of the bolt. Fig. 2 represents an elevation of the nut-lock detached, looking thereat in the direction indicated by the arrow 2 in Fig. 1; and Fig. 3 represents an elevation of the lock, looking thereat in the direction indicated by the arrow 3 in Fig. 1.

The nut-lock A is formed, preferably, from bar steel, bent near its middle portion into the form of a horseshoe to partially encircle the bolt and to constitute a washer for the nut, one end A' being bent in the opposite direction from the bend in the body portion or washer A⁰ to bear against the flange of the fish-plate, as shown in Fig. 1, and so to serve as a stop to prevent the backward turning of the lock with the nut, as hereinafter described.

At the other end of the strip of metal which forms the lock a portion A² is bent inwardly across the open side of the washer and has a beveled point a', which lies adjacent to the inner convex curvature of the opposite end A', as also seen in Fig. 1. The portion A² has an approximately straight inner side a², which when the washer is in position lies in

a line approximately tangent to a circle whose center is the axial center of the bolt and whose radius is equal to the radius of a circle inscribed within the square which constitutes the outline of the nut. That end of the bent strip upon which the arm A² is formed is sprung outwardly somewhat, as seen most clearly at a in Fig. 2, thereby not only bringing the said arm A² upwardly to lock the nut, but at the same time giving the washer portion A⁰ a degree of elasticity, which serves to take up the wear and prevents the rattling of the nut and bolt when slightly worn. At the base of the arm A², upon the outer side of the lock, a shoulder a³ is formed, and when the nut has been turned to its final position one corner thereof rests against this shoulder a³, while the corresponding side of the nut rests against the straight side of the locking-arm A², as seen in Fig. 1, the resiliency of the spring-washer A⁰ and the tension put thereon by the tightened nut causing the tangential arm A² to spring outwardly past the inner edge of the nut as soon as the latter is turned to such a position that one of its sides becomes parallel to the tangential side a² of the locking-arm A², as will be readily understood.

It will thus be seen that the outward bend or "spiral" effect given to the washer serves the purpose of causing the washer to take up ordinary wear on the parts and at the same time to bear the locking-arm A² outwardly, so that on the corner of the nut striking against the shoulder a³ on the base of the said arm backward movement of the nut is effectively arrested.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A nut-lock comprising the elastic body portion or washer A⁰ to partially encircle the bolt, having one end bent outwardly to form a stop; a straight arm bent inwardly at the other end having a beveled point a', and a shoulder a³ at the base of said arm, the latter end of said washer being bent upwardly, substantially as described.

2. A nut-lock comprising the elastic body portion A⁰ bent to encircle the bolt and having a slight spiral effect from end to end; one

end A' being bent outwardly to form a stop,
and the other end having a portion A² bent
straight across one side thereof, the said
straight portion A² having a beveled point
5 a' and a shoulder a³ at its base adjacent the
upper surface of said washer, substantially
as described.

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

J. W. B. COOK.

Witnesses:

W. E. LEEDS,
SIDNEY SCHIELE.