

No. 623,126.

Patented Apr. 18, 1899.

S. R. BAILEY.
ADJUSTABLE AXLE NUT.

(Application filed Dec. 29, 1898.)

(No Model.)

Fig. 1.

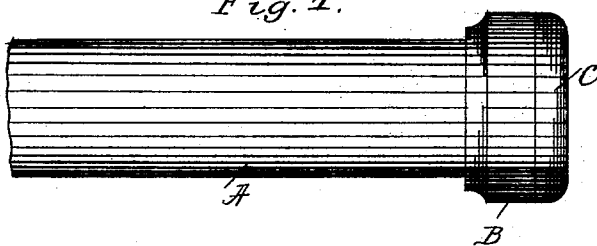


Fig. 2.

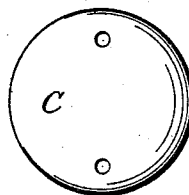


Fig. 3.

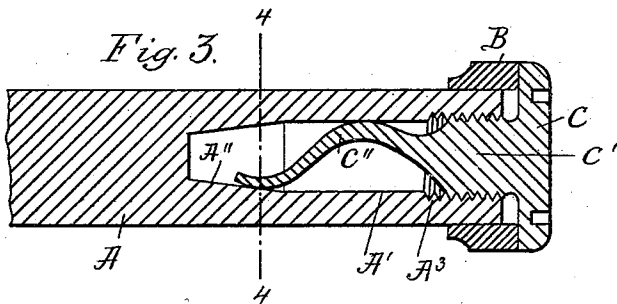


Fig. 4.

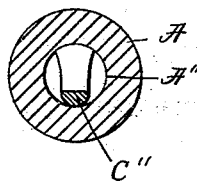


Fig. 5.

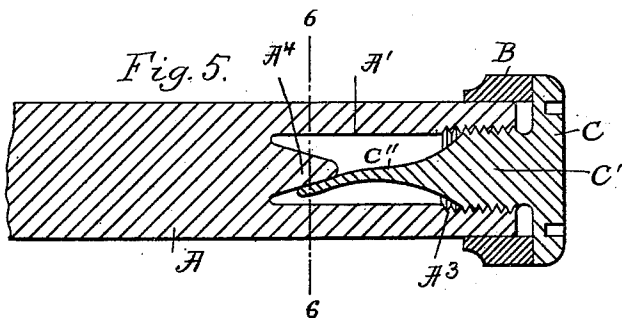
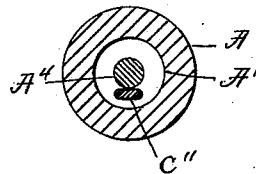


Fig. 6.



Witnesses.
Karl A. Andren.
Samuel Broadstreet

Inventor.
Samuel R. Bailey
by *Alban Andren*
his atty.

UNITED STATES PATENT OFFICE.

SAMUEL R. BAILEY, OF AMESBURY, MASSACHUSETTS.

ADJUSTABLE AXLE-NUT.

SPECIFICATION forming part of Letters Patent No. 623,126, dated April 18, 1899.

Application filed December 29, 1898. Serial No. 700,672. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. BAILEY, a citizen of the United States, residing at Amesbury, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Adjustable Axle-Nuts, of which the following is a specification.

This invention relates to improvements in adjustable axle-nuts especially designed for carriage-axles either with or without ball-bearings for the purpose of setting up from time to time and adjusting the position of the axle-nut relative to the end of the wheel-hub, its washer, or cone-bearing and holding said nut securely in its adjusted position without the need of check-nuts, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the invention. Fig. 2 represents an end view thereof. Fig. 3 represents a central longitudinal section of Fig. 1. Fig. 4 represents a cross-section on the line 4 4 shown in Fig. 3. Fig. 5 represents in central longitudinal section a modification of the invention, and Fig. 6 represents a cross-section on the line 6 6 shown in Fig. 5.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents the outer end portion of a carriage-axle, and B represents the washer or cone-bearing longitudinally adjustable on said axle, as usual.

Centrally within the outer end of the axle A is made a longitudinal recess A', as shown in Figs. 3, 4, 5, and 6. The inner end of said recess A' is preferably reduced or tapering, as shown at A'' in Fig. 3. The outer end of said recess is provided with an internal screw-thread A³. (Shown in Figs. 3 and 5.)

C represents the head of the improved axle-nut, which head may be cylindrical, as shown in Fig. 2, and adapted to be adjusted by means of a suitable spanner, or it may be made polygonal for adjustment by means of an ordinary wrench or other suitable tool commonly used for such purpose without departing from the essence of my invention. The head C is provided with a screw-threaded shank C', which is made adjustable with the corre-

sponding internal screw-thread A³ in the outer end of the carriage-axle, as shown in Figs. 3 and 5. The inner end of the screw-threaded shank C terminates as a springy or laterally-yielding tongue C', adapted to be held frictionally in contact with the surrounding wall of the recess A', as shown in Fig. 3. In practice I prefer to make said elastic tongue C' sufficiently long so that its inner end will be brought to bear against the wall of the reduced or tapering recess A'', and thus cause the said tongue to be held with an increased pressure against the wall of the recess in proportion to the degree of inward adjustment of the axle-nut. The said friction spring-tongue C' may be made integral with the screw-threaded shank C', or, if so desired, it may be made as a separate piece and secured to said shank C' in any suitable manner without departing from the essence of my invention. I do not wish to confine myself to any precise form or curvature of said friction-tongue, and it may be made to bear against one or more portions of the axlerecess, as may be most practicable and desirable.

Instead of constructing the friction-tongue in such a manner as to be held frictionally in contact with the interior wall of the axlerecess A', I may to equal advantage make a preferably conical or tapering projection or spreader A⁴ in the bottom of the recess A' and make the elastic tongue C' of such a size and shape as to cause it to be held frictionally in contact with said projection A⁴, as represented in Figs. 5 and 6. It will thus be seen that the axle-nut shank is held frictionally in position after being adjusted by the friction between the elastic tongue C' and the internal surface of the recess in the axle end, thus effectually preventing the nut from working loose by the jarring of the vehicle, and by this arrangement I dispense entirely with the ordinary set-nut usually employed in devices of this kind.

By the construction as shown and described the axle-nut can be quickly and easily adjusted simply by turning a single piece—namely, the head C of the device.

What I wish to secure by Letters Patent and claim is—

1. The herein-described adjustable-axle-

nut device, consisting in combination with an
axle having a longitudinal recess screw-
threaded at its outer end, a screw-threaded
shank adjustable within the axle end and hav-
5 ing a yielding metal tongue adapted to be
held frictionally against the interior of the
axle-recess, substantially as and for the pur-
pose set forth.

2. The herein-described adjustable-axle-
10 nut device, consisting in combination with an
axle having a longitudinal recess terminating
in a reduced or tapering male or female por-
tion, and screw-threaded at its outer end, a
screw-threaded shank adjustable within the
15 axle end and having a yielding metal tongue
adapted to be held frictionally against the re-
duced or tapering male or female portion of

the axle-recess, substantially as and for the
purpose set forth.

3. The herein-described adjustable-axle- 20
nut device consisting in combination, an axle
having an end recess, a screw-threaded shank
adjustable in such recess and having a yield-
ing spring adapted to be frictionally held
within said recessed axle portion, substan- 25
tially as and for the purpose set forth.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

SAMUEL R. BAILEY.

Witnesses:

ALBAN ANDRÉN,
KARL A. ANDRÉN.