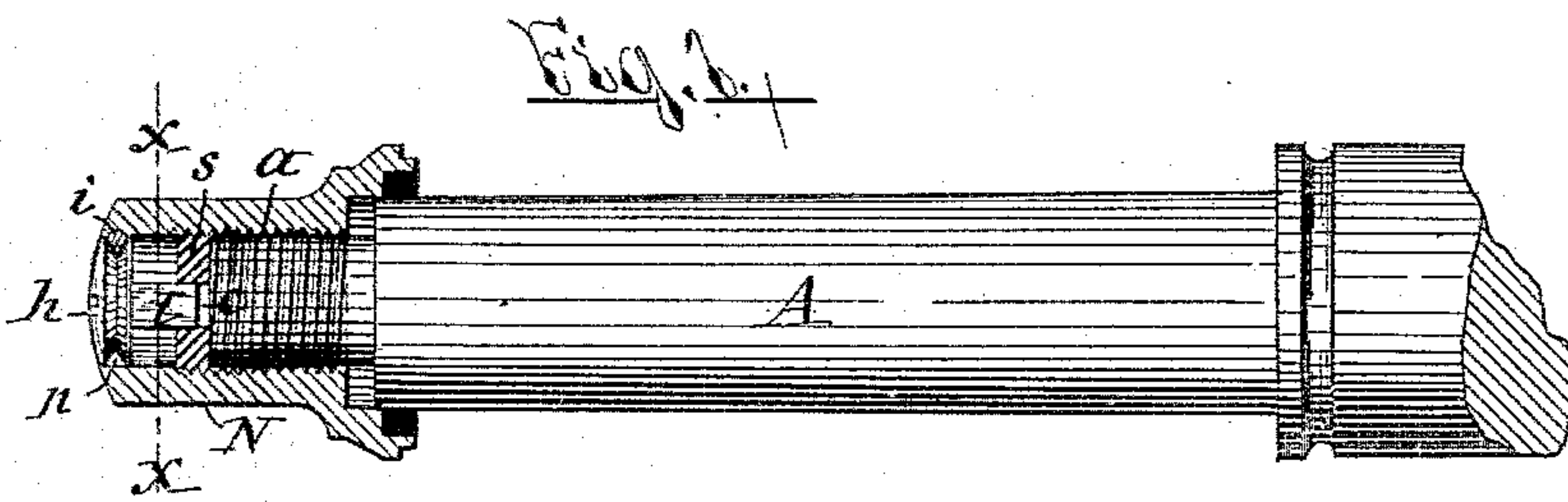


(No Model.)

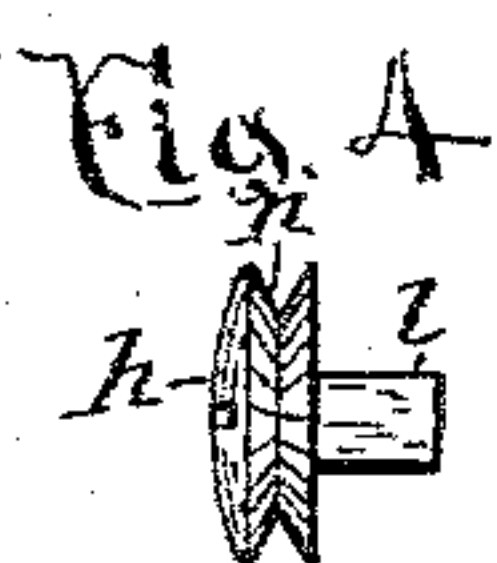
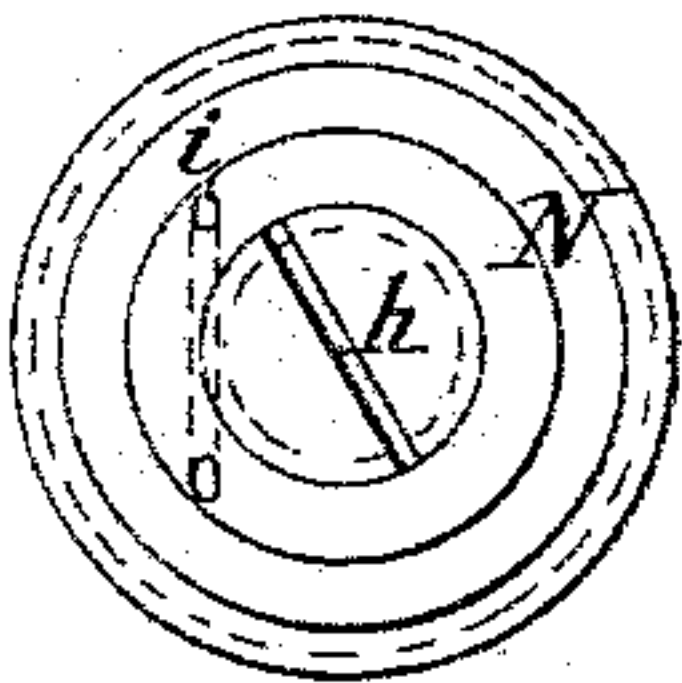
T. H. DONLON.  
ADJUSTABLE AXLE NUT.

No. 356,710.

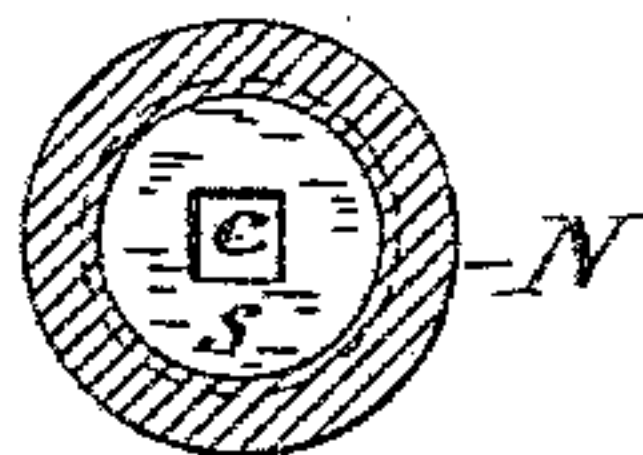
Patented Jan. 25, 1887.



*Fig. 2.*



*Fig. 3.*



Witnesses

C. Bendixson

A. F. Walz

Inventor

Thomas H. Donlon

per Duell, Laessle & Co.  
his Atty.

# UNITED STATES PATENT OFFICE.

THOMAS H. DONLON, OF VERNON, NEW YORK.

## ADJUSTABLE AXLE-NUT.

SPECIFICATION forming part of Letters Patent No. 356,710, dated January 25, 1887.

Application filed July 14, 1886. Serial No. 208,005. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. DONLON, of the town of Vernon, in the county of Oneida, in the State of New York, have invented new and useful Improvements in Adjustable Axle-Nuts, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists in improved means for adjustably confining the wheel-retaining nut on the end of a vehicle-axle, as hereinafter fully described, and specifically set forth in the claims.

The invention is fully illustrated in the annexed drawings, wherein—

Figure 1 is a plan view of the end portion of a vehicle-axle, with my invention shown in longitudinal section. Fig. 2 is an end view of the same. Fig. 3 is a transverse section on line *x x*, Fig. 1, and Fig. 4 is a detached side view of the separate head of the set-screw.

Similar letters of reference indicate corresponding parts.

A represents the spindle of a vehicle-axle, provided at its end with the usual screw-threaded portion, *a*, for the reception of the wheel-retaining nut N. The screw-threaded end portion, *a*, of the axle is of a uniform diameter, and the screw-threaded portion of the nut N is of a corresponding uniform diameter, but of greater length than the axle-screw *a*. Within the nut N works a set-screw, *s*, which is provided with an angular eye, *c*. The head *h* of the set-screw I prefer to form of a separate piece, and journal said head in a smooth eye in the outer end of the nut N, and confine said head longitudinally therein by providing the head with a circumferential groove, *n*, and inserting a pin, *i*, through the nut and tangentially through the groove *n* of said head, as illustrated in Fig. 1 of the drawings. To the inner face of the head I attach an angular lug, *l*, corresponding to the eye *c* of the set-screw, in which eye the lug *l* enters. The outer face of the head *h* is provided with a transverse slot for the application of a screw-driver by which to turn said head.

By turning the head *h* the set-screw *s* is caused to turn with it by the engagement of the lug *l* with the eye *c*, and by turning the said set-screw in the direction which causes it to move toward the axle it can be made to press tightly against the end of the screw-threaded portion *a*, and the engagement of these parts serves to maintain the nut N in its position.

It will be observed that by journaling the head *h* in the end of the nut N and confining said head longitudinally therein, as above described, I am enabled to maintain a smooth finish on the end of the nut N.

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

1. The combination of the axle provided with the screw-threaded end portion, *a*, the nut N, provided with an eye in its outer end, the set-screw *s*, working in the nut and provided with an angular eye, *c*, the head *h*, journaled in the aforesaid eye of the nut and confined longitudinally therein, and the lug *l*, projecting from the head *h* and entering the eye of the set-screw, substantially as described and shown.

2. In combination with the axle provided with the screw-threaded end portion, *a*, the nut N, provided with an eye in its outer end, the set-screw *s*, provided with the angular eye *c*, the head *h*, journaled in the aforesaid eye of the nut and provided with the circumferential groove *n*, the pin *i*, passing through the nut and tangentially through the groove *n*, and the lug *l*, projecting from the head *h* and into the eye of the set-screw, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 6th day of July, 1886.

THOMAS H. DONLON. [L. S.]

Witnesses:

ARTHUR H. BLOOM,  
C. H. DUELL.