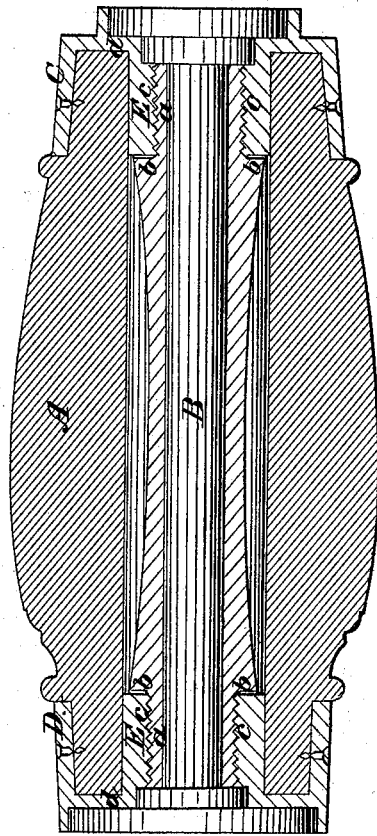


W. GREENLEAF.

### Axle-Box.

No. 54,529.

Patented May 8, 1866.



**Witnesses:**

Wm Dean Overell  
Wm Trewin

**Inventor:**

Wm. Greenleaf,  
per

*Attys.*

# UNITED STATES PATENT OFFICE.

WILLIAM GREENLEAF, OF TERRE HAUTE, INDIANA.

## IMPROVEMENT IN SECURING BOXES IN HUBS.

Specification forming part of Letters Patent No. 54,529, dated May 8, 1866.

*To all whom it may concern:*

Be it known that I, WILLIAM GREENLEAF, of Terre Haute, Vigo county, State of Indiana, have invented a new and Improved Mode for Securing Boxes in Hubs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The drawing represents a longitudinal-central section of a hub with a box secured into it according to my invention, the box and its fastenings being also bisected longitudinally.

This invention relates to a new and improved mode of securing metal boxes in the hubs of wheels for vehicles, as hereinafter fully shown and described, whereby the box is firmly secured in hub with the greatest facility, and rendered capable of being readily detached whenever necessary.

A represents a hub, constructed or turned in the usual manner, and B is the box, which has a screw-thread, *a*, cut on each end, on its outer surface, as shown clearly in the drawing, and the outer parts of the box in which the screws *a* are cut are less in diameter than the adjoining parts in order to form shoulders *b b*.

C represents the front, and D the back, band of the hub. These bands have each thimbles

E, cast with them to fit into the ends of the hub, said thimbles having screw-threads *c* cut in them to work on the screws *a* on the ends of the box B, the ends of the thimbles, when fully screwed up, abutting against the shoulders *b* of the box.

It will be seen by referring to the drawing that the thimbles E are connected with the bands C D by plates D, which abut against the ends of the hub, and it will also be seen that when the thimbles E are fully screwed up the box B will be firmly secured in the hub. It cannot move longitudinally therein nor turn, the bands C D being nailed or screwed on the ends of the hub to prevent the latter movement.

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

The box B, provided with a screw-thread, *a*, at each end, in combination with the thimbles E, provided with internal screws, *c*, to receive the screw-threads *a* of the box, and connected to the bands C D, substantially as and for the purpose herein set forth.

WILLIAM GREENLEAF.

Witnesses:

R. GARVIN,  
HENRY CLARK.