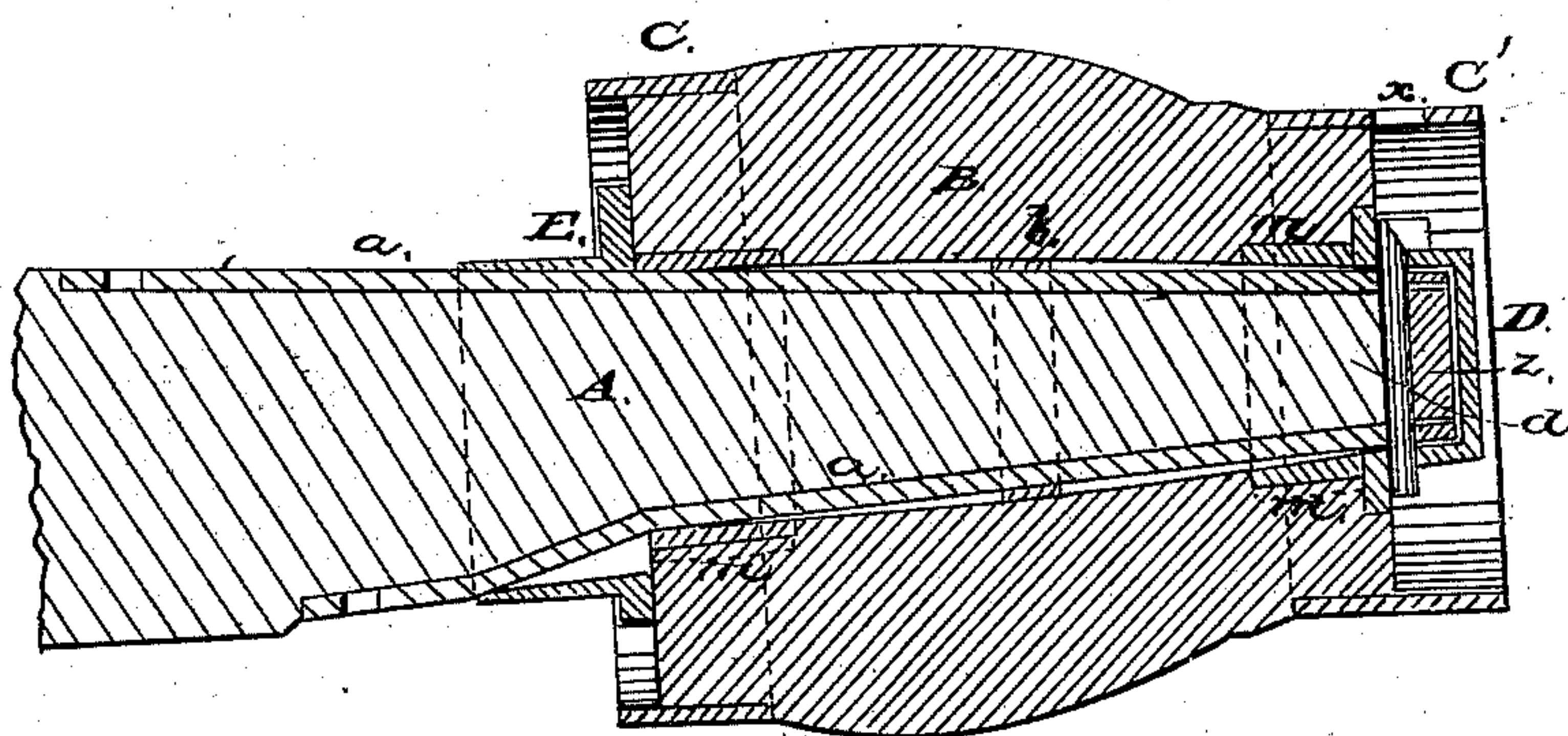


H. T. TICHENOR.

Axle.

No. 68,130.

Patented Aug. 27, 1867.



Witnesses.

A. M. May
V. D. Stockbridge

Inventor.

H. T. Tichenor

per
Alexander T. Mason
Atty

United States Patent Office.

HENRY T. TICHENOR, OF FORT BRANCH, INDIANA.

Letters Patent No. 68,130, dated August 27, 1867.

IMPROVEMENT IN AXLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. T. TICHENOR, of Fort Branch, in the county of Gibson, and in the State of Indiana, have invented certain new and useful improvements in Axles; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

In the annexed drawings, A represents the axle of any ordinary vehicle, with the hub B attached. This hub has a band, *m*, upon its inside of the opening, and another band at the outer end *n*, together with the usual top bands C C' at the outer and inner ends. The axle A has a metal skein, *a a*, upon its upper and lower side, which runs entirely through the hub. The ends of these skeins *a a* are tenoned so as to pass through small openings in a metal plate, *z*, and be riveted thereto. *z* represents a metal plate made to fit snugly upon the tip end of the axle, and connect the ends of skeins *a a*. This plate answers the double purpose of preventing the splitting or breaking of the end of the axle, and secures the skeins. *b* represents the intermediate band encircling the axle and skeins, and securing the skeins. E represents a metallic collar, having a shoulder formed upon it, which is placed upon the axle at its inner end, and, while strengthening the same, acts as a washer, and keeps the hub steady in its place. It will be seen that there is a metallic cap, with shoulders D, upon the front end of the axle, which has an opening for connecting it, by means of the pin *d*, to the axle tip, and holding the hub. An axle thus ironed is held perfectly secure from splitting, and secures the hub in a permanent manner.

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

The combination of the skeins *a a*, plate *z*, bands *b b*, collar E, and cap D, with pin *d*, when arranged and used with the axle and hub in the manner and for the purposes specified.

In testimony that I claim the foregoing, I have hereunto set my hand this 29th day of March, 1867.

HENRY T. TICHENOR.

Witnesses:

A. J. LOUDER,

JOSEPH WILSON.