

E. W. IVES.

Improvement in Carriage Axle-Boxes.

No. 114,148.

Patented April 25, 1871.

Fig. 1.

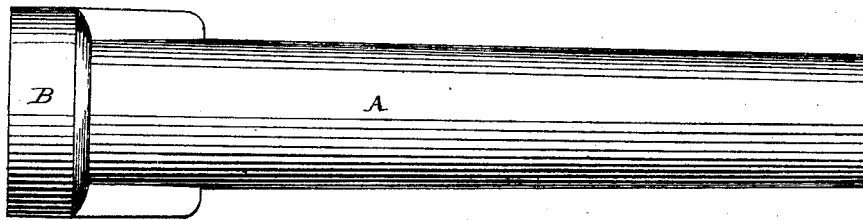


Fig. 2.

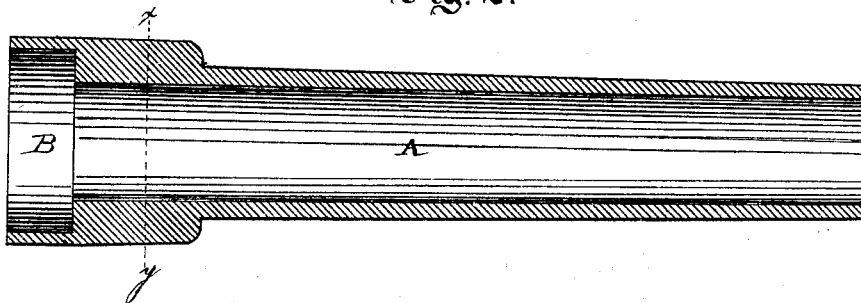
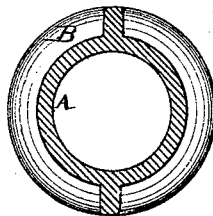


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELDRIDGE W. IVES, OF HAMDEN, CONNECTICUT.

IMPROVEMENT IN CARRIAGE-AXLE BOXES.

Specification forming part of Letters Patent No. **114,148**, dated April 25, 1871.

To all whom it may concern:

Be it known that I, ELDRIDGE W. IVES, of Hamden, New Haven county, Connecticut, have invented certain new and useful Improvements in Axle-Boxes, of which the following is a specification:

The nature of my invention consists in the construction of an axle-box for carriages and other vehicles of hard-rolled sheet-brass or other suitable material, whereby I am enabled to produce a neater, lighter, and cheaper article than by the old casting process.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction, referring to the accompanying drawing, and to the letters marked thereon.

Figure 1 represents a side elevation of my box. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section of the box, taken on the line *x y*, Fig. 2.

In the construction of my axle-boxes A, I take a blank form of hard-rolled sheet-brass or other suitable hard metal and put it in the dies, where it is shaped into the proper form. It is then taken to another press, where the collar B is formed upon the inner end. The joint where the two ends of the metal meet are brazed together, and, without further work, the box is ready for use.

By the old process the box had first to be cast, then bored out, its outer surface turned, and then its ends be cut squarely off.

As the sheet metal which I use is rolled so as to be equally smooth on both sides, and as the die stamps the forms into proper shape, the casting, boring, turning, and shaping the ends are all dispensed with, and I produce an article which is not only far cheaper, but lighter and neater, than those which are cast.

In making the boxes I prefer to use hard-rolled sheet-brass, as being tougher, and better adapted to withstand the friction of the axle; but, if desired, other hard-rolled metal may be used in its place.

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

1. The carriage-axle box A, formed of hard-rolled sheet-metal, substantially as shown and described.

2. As a new article of manufacture, an axle-box constructed of hard-rolled sheet-brass or other suitable material, substantially as specified.

ELDRIDGE W. IVES.

Witnesses:

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