

(No Model.)

T. LO CASTO.
AXLE BOX.

No. 519,403.

Patented May 8, 1894.

Fig. 1.

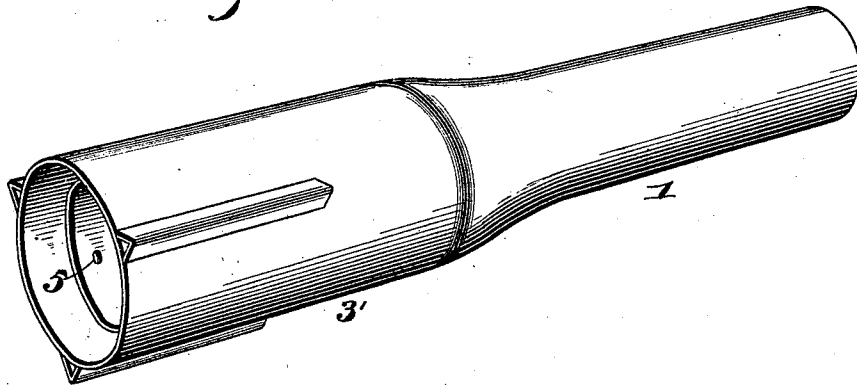


Fig. 2.

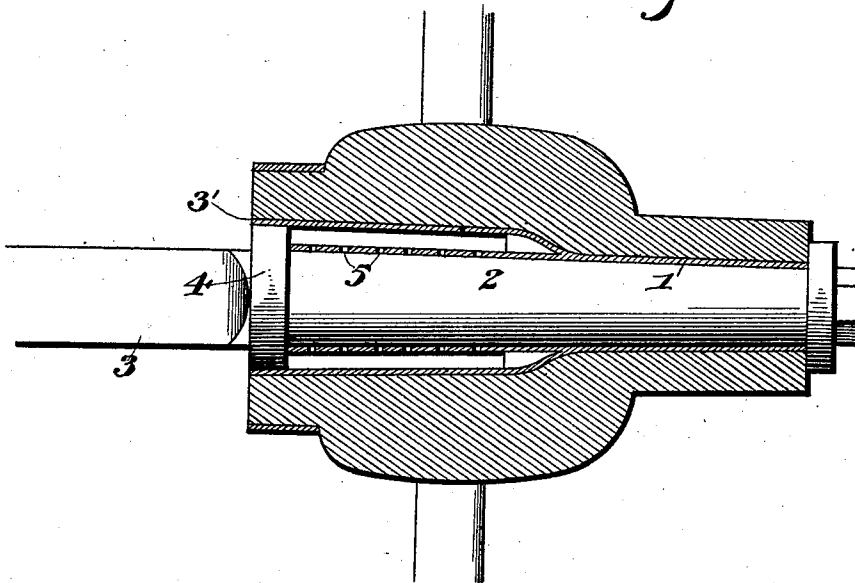
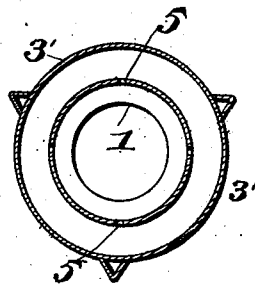


Fig. 3.



Witnesses

B. S. Ober.
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By *his* Attorneys,

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UNITED STATES PATENT OFFICE.

TONY LO CASTO, OF MARSHALL, TEXAS, ASSIGNOR OF ONE-HALF TO HENRY YAKEL, OF SAME PLACE.

AXLE-BOX.

SPECIFICATION forming part of Letters Patent No. 519,403, dated May 8, 1894.

Application filed November 15, 1893. Serial No. 491,019. (No model.)

To all whom it may concern:

Be it known that I, TONY LO CASTO, a citizen of the United States, residing at Marshall, in the county of Harrison and State of Texas, have invented a new and useful Axle-Box, of which the following is a specification.

My invention relates to improvements in axle-boxes for vehicle wheels and to that particular class thereof which is self-lubricating, or in other words, contains a lubricant-receiving recess from which the lubricant is automatically fed to the spindle of the axle as necessity may occasion.

The objects of my invention are to produce a very simple construction of box that may be easily manufactured and applied, which will efficiently operate to discharge or feed the lubricant, and which when in position combines with the collar of the axle in such manner as to be rendered dust-proof.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claim.

Referring to the drawings:—Figure 1 is a perspective view of a bearing-box embodying my improvements, the view being from the inner end. Fig. 2 is a longitudinal sectional view, the axle being in position within the box. Fig. 3 is a transverse sectional view.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ the usual tapered thimble 1, which is designed to conform to and fit properly upon the spindle 2 of the axle 3 and to abut against the collar 4 usually formed on axles at the junction of the same with the spindle. Arranged upon the thimble is the hub-box 3', the same being of a desired contour in section but preferably tapered to conform to the configuration of the thimble and terminating at its outer end midway the same, where it is reduced and either permanently secured to or forms a part of said thimble. The hub-box is of greater diameter than the thimble and consequently produces an intermediate chamber or recess for the reception of a lubricant. The inner end of the box projects beyond the end of the thimble, and is of such a diameter

as to fit snugly over the collar of the axle. The thimble has that portion thereof that is covered by the box provided at suitable points with lubricating openings 5.

In operation, previous to the application of the wheel upon the spindle the chamber or recess between the box and thimble is packed with a suitable lubricating grease, and when in position it will be seen that the inner end of the thimble abuts against the collar of the axle, while the inner end of the hub-box snugly encircles and rests upon said collar so that the collar acts to close the entrance to the lubricating recess or chamber and prevents the ingress of dust, grit, and other foreign matter to the lubricating agent and to support the hub box to obviate the necessity of providing supports in the lubricating chamber in order to have the latter unobstructed throughout its entire length. It will be seen that the lubricant will remain in position within the chamber until the heat generated by the friction between the thimble and spindle causes said lubricant to melt, whereupon it will escape through the feed-perforations in the thimble, gain access to the spindle, and be distributed thereover.

In this manner it will be seen that I have provided a self-lubricating axle-box of very simple construction and efficient in operation, the ends of the same being closed by the usually employed collar of the axle so that no auxiliary devices for this purpose of complicated construction are required.

Having described my invention, what I claim is—

An axle box comprising the tapered thimble conforming to the configuration of the spindle of an axle and closely fitting the same and adapted to abut against the collar of the axle at the base thereof, and provided at its inner portion with perforations, and the external encircling box 3' spaced from and forming a lubricant receiving chamber around the inner perforated portion of the thimble, said chamber being unobstructed from end to end and its outer end being open for the introduction of the lubricant, and said box having one end permanently secured to the thimble intermediate of the ends thereof, so as to close

the lubricant receiving chamber at its inner
end, and extending beyond the end of the
thimble to receive and pass over the collar of
an axle and resting upon and supported by
5 the collar, whereby the outer end of the lubricant
receiving chamber is closed by the said
collar when in use, substantially as described.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

TONY LO CASTO.

Witnesses:

W. H. POPE,
W. J. WOTZ.