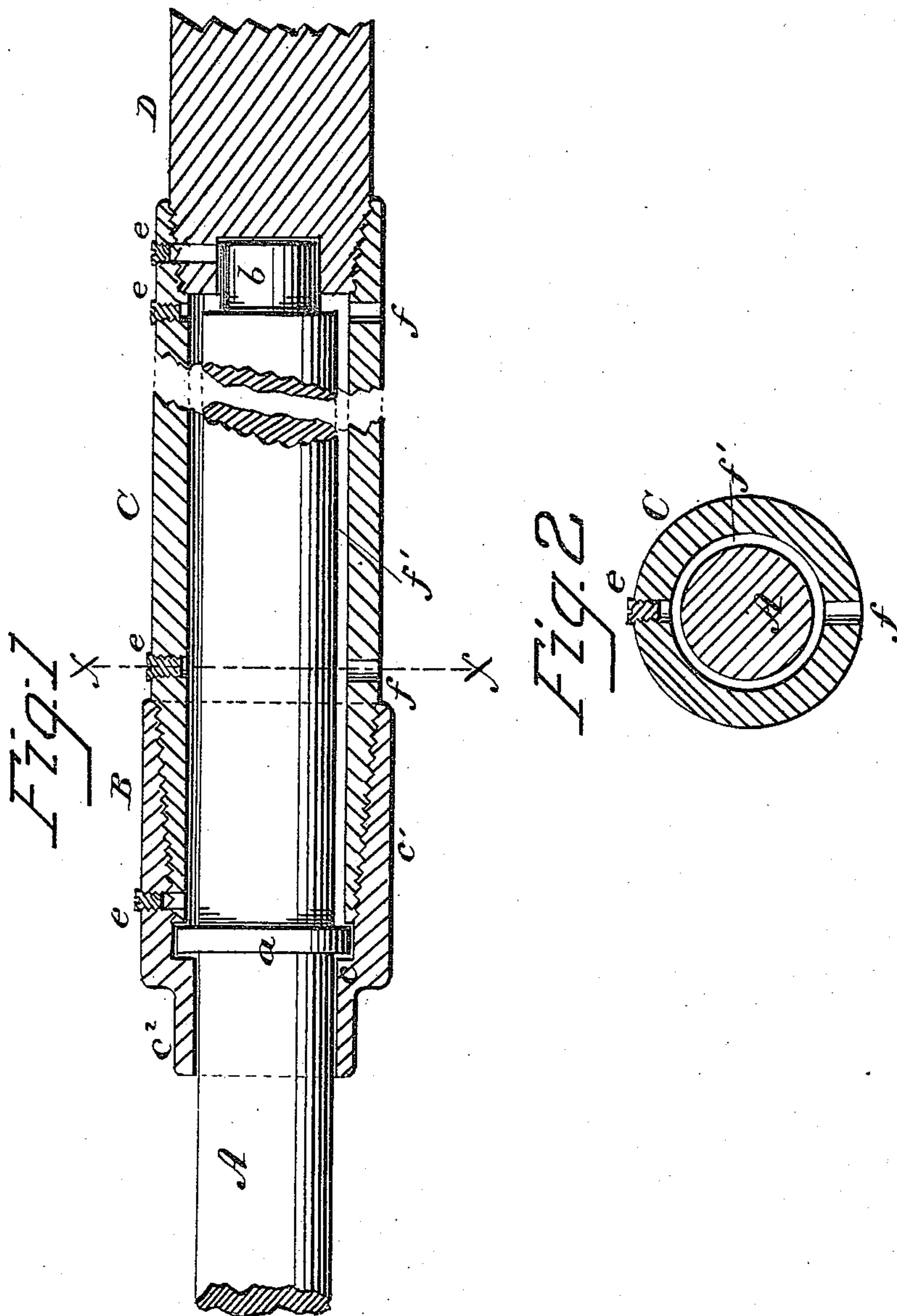


(No Model.)

G. E. CHASE.
DIVIDED AXLE FOR RAILROAD CARS.

No. 441,133.

Patented Nov. 25, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. CHASE, OF FERNANDINA, FLORIDA.

DIVIDED AXLE FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 441,133, dated November 25, 1890.

Application filed March 28, 1890. Serial No. 345,682. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. CHASE, a citizen of the United States, residing at Fernandina, in the county of Nassau and State of Florida, have invented certain new and useful Improvements in Divided Axles for Railroad-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in divided axles for railroad-cars, wherein each wheel of a truck is allowed to receive rotation independent of its fellow for the purpose of preventing not only grinding and wearing of the journal-boxes in the rolling-stock, but also to allow the turning of curves safely, and at the same time prevent undue wearing of the rails at the curves; and the main object which I have in view is to afford a free lubrication of each axle, and also to allow, when desired, a free discharge of the gummy or spent oil, provision being made for effectually preventing leaking of the lubricant and the working loose of the parts at the joints, as will be fully understood from the following description and claim, taken in connection with the annexed drawings, in which—

Figure 1 is a vertical section through my improved boxing for a divided axle, showing the short axle in full lines. Fig. 2 is a transverse section through the axle and its boxing, taken in the plane indicated by dotted lines $x x$ thereon.

Similar letters refer to similar parts in both views.

Referring to the annexed drawings, A designates a solid axle upon which a car-wheel is applied in the usual well-known manner. This axle is constructed with an annular collar a , and it terminates about midway of the truck or car-body in a reduced portion b .

B designates a flanged sleeve, which is passed on the axle from its outer end before the wheel is applied. This sleeve is provided with a contracted tubular extension c^2 , an internal shoulder c , and its largest portion c' extends over the collar a and is screw-tapped to receive the male screw-thread which is formed on the outer end of a long cylindrical box or tubular casing C, which extends nearly the entire length of the axle. It will be observed by reference to Fig. 1 that I tap a female thread into the bore of the largest por-

tion c' of the flanged sleeve B, which bore is tapering or flaring outwardly; also, that the male screw-thread on the end of the casing C is also tapered, so that when the two parts B and C are screwed tightly together a perfect hermetical joint is produced which will not leak oil contained in the lubricating-chamber f' , nor will the joint casually work loose. The inner end of this casing is screw-tapped on a taper similar to the sleeve B, and into it is forcibly screwed the tapered threaded end of a short solid axle section D, which is practically the inner section of the axle, and which may have a journal-bearing at or near the center of the car or truck. I thus retain the lubricating-oil within the chamber f' and obtain substantial and rigid joints at both ends of the casing C.

It will be observed from the annexed drawings that I provide at suitable points tap-holes e , and also tap-holes f . These apertures I shall close by means of screw-threaded nuts. By these means I am able to supply a chamber f' , which is left between the axle and its casing, and the sleeve and its collar with a suitable lubricant, and also to allow the gummy or waste oil to escape.

I am aware that in Letters Patent numbered 42,105, of the year 1864, a sectional axle is shown composed of a short rotary axle-section journaled inside of a casing, which is provided on one end with a cylindrical screw-cap and secured at the other end to a solid section by a cylindrical screw-connection covered by a cylindrical screw-thimble. Such device I broadly disclaim.

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

The combination, with the solid-axle rotary section provided with a collar a and a journal b and a solid-axle section D, of a tubular casing C, forming a chamber f' , and the sleeve B, shouldered at c and having a contracted extension c^2 , the said sections B, C, and D being secured together by tapered male and female screws forming hermetical joints at the ends of the said casing, as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEO. E. CHASE.

Witnesses:

ROBERT S. SCHUYLER,
C. L. SCHUYLER.