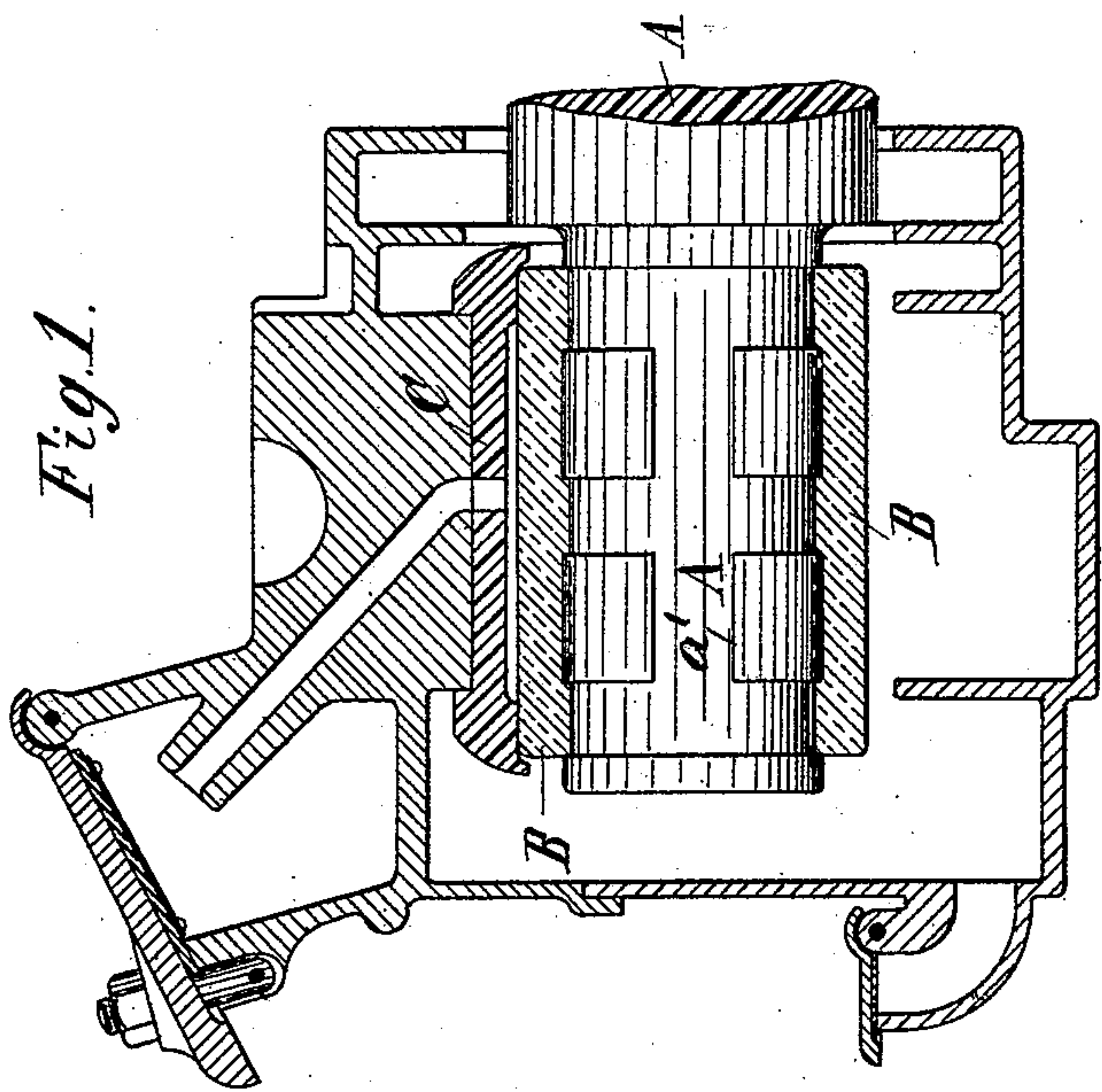
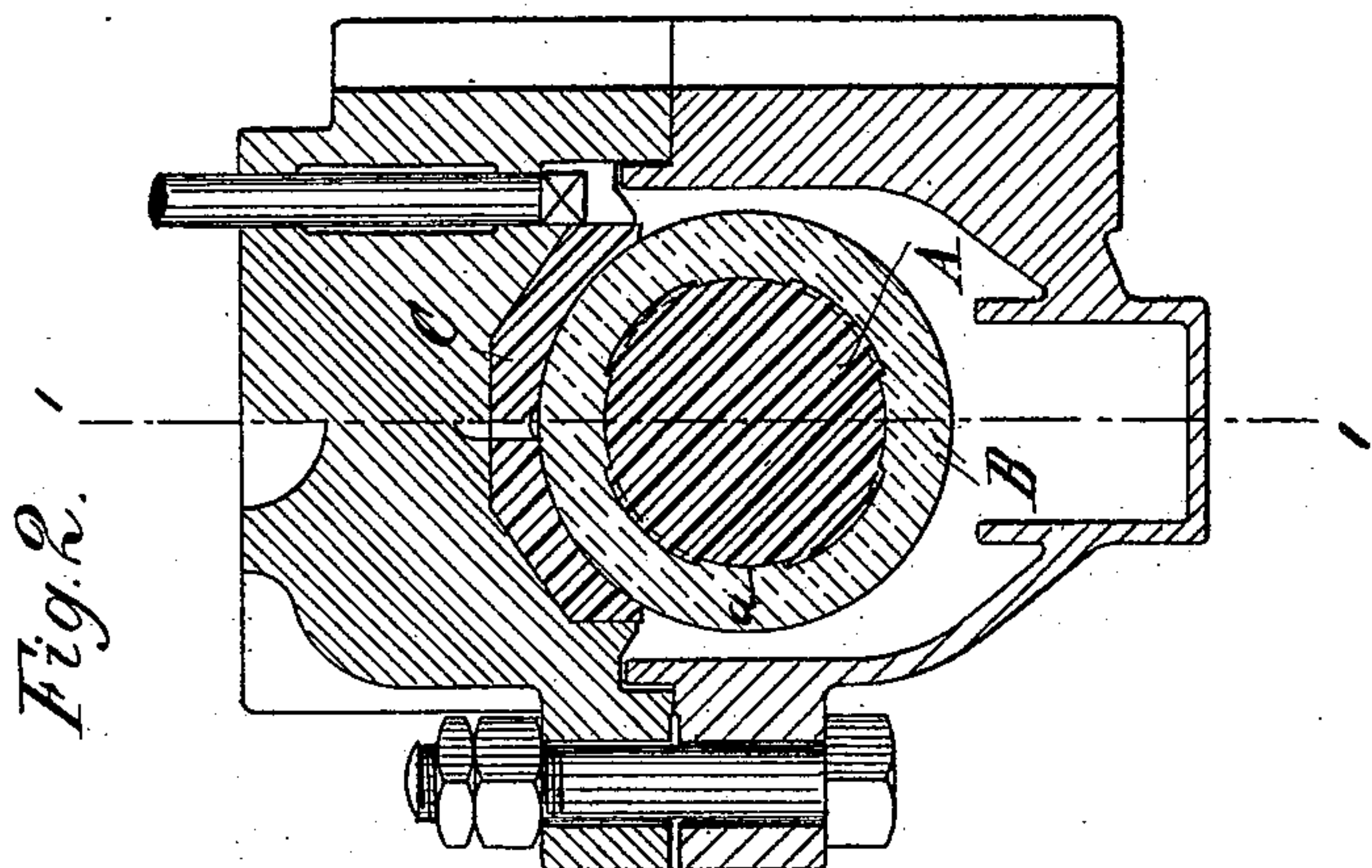


(No Model.)

P. RIZZONI.  
AXLE ARM FOR RAILWAY CARS.

No. 465,204.

Patented Dec. 15, 1891.



WITNESSES:  
Marion Hall.  
*Werner*

Inventor  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

PAUL RIZZONI, OF ST. PETERSBURG, RUSSIA.

## AXLE-ARM FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 465,204, dated December 15, 1891.

Application filed May 7, 1891. Serial No. 391,905. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL RIZZONI, a subject of the Emperor of Russia, residing at St. Petersburg, Russian Empire, have invented  
5 new and useful Improvements in Axle-Arms for Railway-Carriages, of which the following is a specification.

The improvement in the present construction of axle-arms refers to a casing of the axle-arm in such a manner that this casing, after  
10 having been worn out or damaged, can easily be replaced by a new one, so that the real axle-arm A is not affected by the use.

In the accompanying drawings, Figure 1 is  
15 a vertical longitudinal sectional view of a railway-axle bearing provided with my improved axle-arm, said section being taken on the line 1 1 of Fig. 2; and Fig. 2 is a vertical transverse sectional view of Fig. 1.

20 Similar letters of reference indicate corresponding parts.

The casing B consists, as can be seen from the drawings, of a jacketing of brass, bronze, or any other suitable alloy, which is cast round  
25 the axle-arm and then turned off. In order that the jacketing be irremovably connected with the axle-arm A on the latter, cavities *a*, Fig. 2, are worked with a chisel, drill, &c.,

into which the metal alloy enters at the casting, so that the jacketing on the axle-arm is  
30 secured against rotation and shifting on same and can only be removed by destroying. If a new jacket is required, it can be cast on the axle arm or journal, from which the old one can be removed by destroying it. In-  
35 stead of making cavities into the axle-arm, the same can be also provided with elevation *a'*, Fig. 1, in order to hold the jacketing. The axle-bearing C for this axle-arm A B is constructed of steel or iron.

I claim as my invention—

The combination, with the axle-arm of a railway car or carriage, of a fixed jacketing of brass, bronze, or other material on said  
40 axle-arm, said jacketing and axle-arm being locked together and engaged by means of projections and recesses, said recesses being filled by the casting, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of  
50 two subscribing witnesses.

PAUL RIZZONI.

Witnesses:

EDUARD PEITZ,  
W. HAUPT.