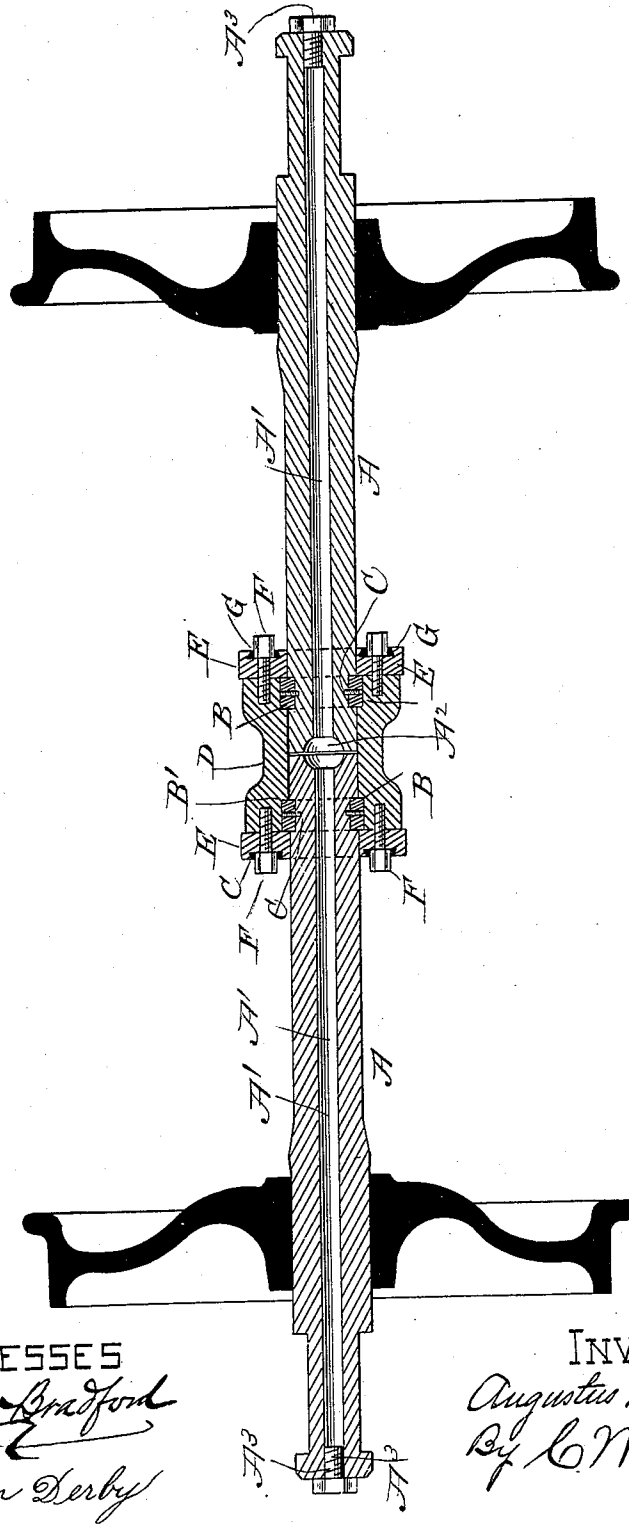
(No Model.)

A. WALTON.

CAR AXLE.

No. 287,202. Patented Oct. 23, 1883.



WITNESSES

Wilmer Bradford

Edwin Derby

INVENTOR -

Augustus Walton

By C.W.M. Smith

Attorney

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

AUGUSTUS WALTON, OF SAN FRANCISCO, CALIFORNIA.

CAR-AXLE.

SPECIFICATION forming part of Letters Patent No. 287,202, dated October 23, 1883.

Application filed May 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS WALTON, residing at San Francisco, in the county of San Francisco and State of California, have invented a certain new and useful Improvement in Car-Axles, of which the following is a specification.

My invention relates to a divided car-axle having a central coupling, as hereinafter more fully described and claimed.

A A represent the axle, which is divided in the middle and bored from end to end, in order that a channel, A′, may be provided, through which a lubricant may be caused to flow for the purpose of lubricating the parts inclosed by the coupling-sleeve.

The inner ends of the divided axle are hollowed out in a cup-shaped form, and a recess, A^2, is thus provided, which forms a reservoir for the oil or other lubricant, and from which it may work its way along between the opposed faces of the divided axle, and thence along the surface of the axle next to the coupling-sleeve, and up to and about the retaining-collars, a sufficient space being left between the parts to avoid friction. The outer ends of these oil-channels are closed by screw-plugs A^3 A^3.

Near the inner end of each section of the divided axle I make an annular groove. Within this groove is placed a collar, B, the outer face of which projects some distance beyond the face of the axle and forms a flange or squared shoulder, as shown. This collar or flange may be made of cast-iron and in two or more sections, and held in place by screw-pins C, as shown; or it may be made of one piece of metal and shrunk on; or it may be cast entire with the axle.

D is a short sleeve adapted to be placed over and around the meeting ends of the divided axle, and has a circular rabbet, B′, or enlargement of the bore, formed in each head, for the purpose of receiving the projecting shoulders of the collars or flanges B B, and in practice the coupling-sleeve is first passed over the inner end of one axle, and the end of the other axle is then inserted into the sleeve, the collars B fitting into the rabbets B′, and being flush with the outer faces or heads of the sleeve. While in this position the caps E E are screwed down upon the heads of the sleeve D by means of screw-bolts F, the heads of which enter dovetailed countersunk cavities or cups G G, formed in the faces of the caps, and are packed with Babbitt metal, to prevent loosening or unscrewing of the said bolts.

It will be seen from the foregoing that the end-thrust of the meeting ends of the axle is controlled and limited by the projecting collars and the shoulders formed by the rabbets B′ B′ and the caps E E, and that when the parts are all properly united and set up, a strong connection is made with a minimum number of parts, which parts are all of simple construction, with little, if any, liability of becoming broken asunder or disconnected, and that the parts can be operated with but a small amount of friction.

It will also be seen that old axles can be cheaply altered over and my improvement applied to them, and that in rounding curves in the track each wheel will regulate itself and the coupling or sleeve will revolve with the axle.

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

1. A divided car-axle composed of the tubular sections A A, the ends of which are closed by screw-plugs A^3 A^3, the hollow coupling-sleeve D, having rabbeted ends, the collars B B, caps E E, and screw-bolts F F, substantially as shown and described.

2. In a divided car-axle, the sections A A, having a central bore or oil passage, A′, their outer or supply ends being closed by screw-plugs A^3 A^3, and their inner ends hollowed out to form a cavity or oil-chamber, A^2, in combination with a coupling-sleeve, substantially as shown, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

AUGUSTUS WALTON. [L. S.]

Witnesses:

C. W. M. SMITH,

CHAS. E. KELLEY.