(No Model.)

R. T. WHITE.

DIVIDED AXLE FOR RAILWAY CARS.

No. 359,827. Patented Mar. 22, 1887.

FIG. 1.

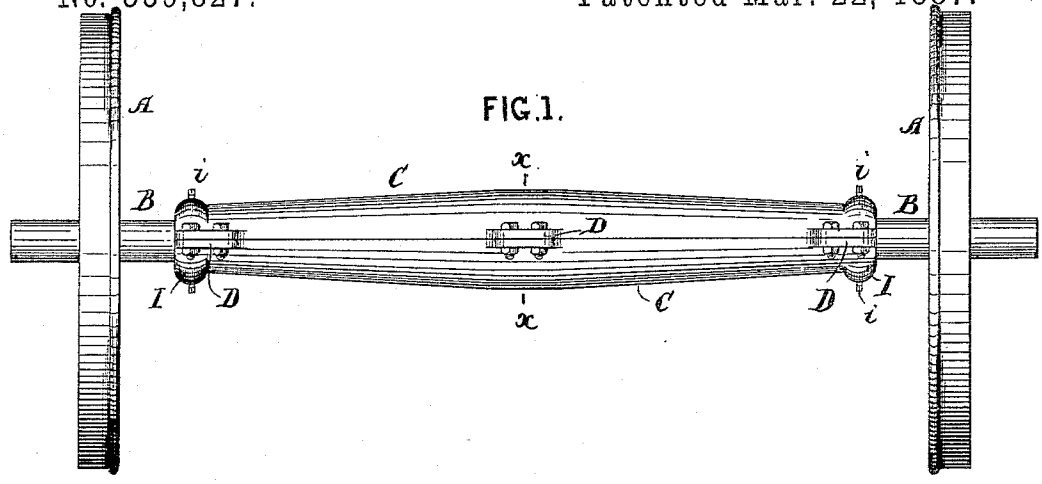


FIG. 2.

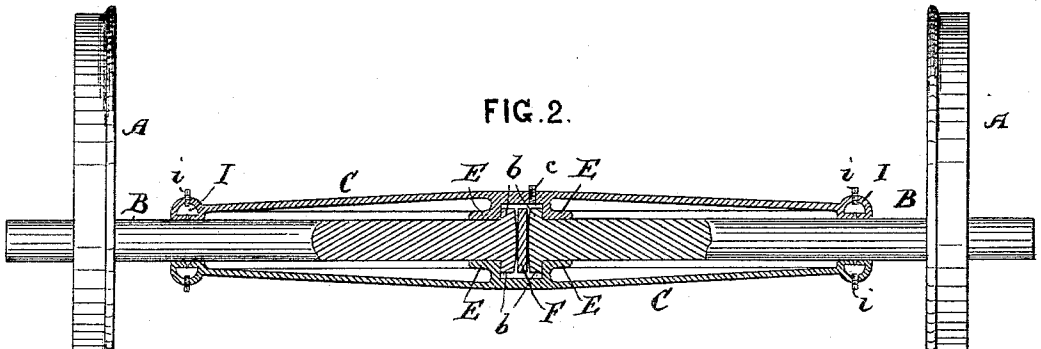


FIG. 3.

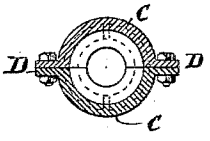
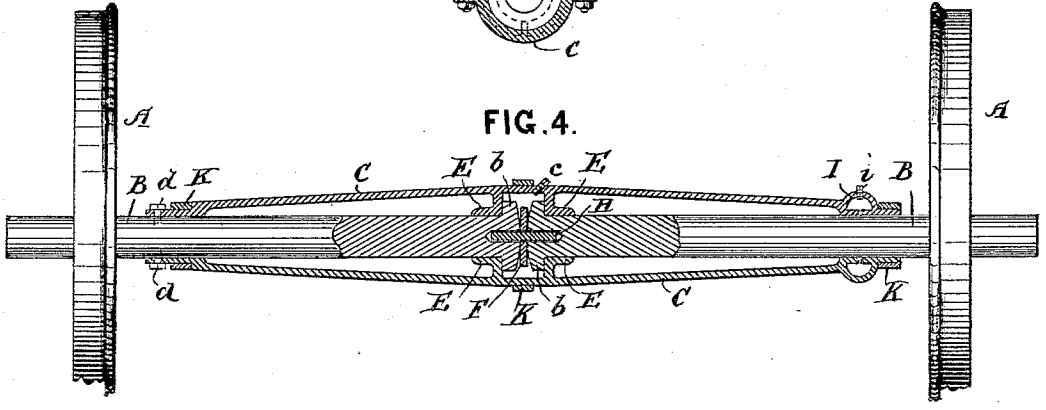


FIG. 4.



Witnesses.
C. Blanke
J. A. Josselyn

Inventor.
R. T. White
by J. H. Adams
Attorney.

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

UNITED STATES PATENT OFFICE.

REYNOLDS T. WHITE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JOHN L. RANDALL, OF SAME PLACE.

DIVIDED AXLE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 359,827, dated March 22, 1887.

Application filed July 6, 1886. Serial No. 207,184. (No model.)

To all whom it may concern:

Be it known that I, REYNOLDS T. WHITE, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Divided Axles for Railroad-Cars, of which the following is a specification.

My invention relates to an improvement in divided axles for railroad-car wheels, whereby the wheels are allowed to turn independently of each other, and thus admit of those on the outer rail of a curve to accommodate themselves to the difference in length between the outer and inner rails of the curve.

The invention consists in certain details of construction, hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of my invention as completed. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section on the line *x x* of Fig. 1. Fig. 4 is a sectional view of a modification of my invention.

A A are car-wheels for use on steam or street railroads.

B B are the axles, made in two parts, separated at the center.

C C are sleeves surrounding the axles, and are of larger diameter at the center than at the ends, being made tapering from the center to the ends, as shown. The sleeves C C are made in two longitudinal parts or halves, and secured together by means of bolts passing through lugs D at the center and at each end.

On the inner sides of the sleeves C C, and cast with the same, are bearings E E, which surround the inner ends of the two portions of the shaft B B. At the outer ends of the sleeves C C, and upon the bearings of the same on the shaft B B, are oil-cups I I, having openings provided with plugs or screw-stoppers *i i*. Oil from the cups I I passes to the axles through holes in the bearings. The inner ends of the axles B B are provided each with a shoulder, *b b*, of greater diameter than the axle, against which the bearings E E on the sleeve abut, and which serve to hold the sleeve in place and prevent any longitudinal movement on the axle.

When my invention is to be applied to an axle already in use, I divide such axle at the center, and to make up for any loss in its length by such dividing I place a disk, F, between the two inner ends of the divided shaft. In Fig. 4 the disk F is made concave at the sides, and adapted to the convex ends of the two portions of the shaft, and the disk F is held in place by means of a pin, H, through its center and in the ends of the axle, as shown.

When my invention is applied to new shafts, the shoulders *b b* are cast with the shafts, and abut against each other, there being no need of an intervening disk, as in Figs. 2 and 4.

The central portion of the axle and sleeve are lubricated by oil, which is poured into a recess or holes provided with screw-plugs *c*.

In Fig. 4 the two parts of the sleeves C C are shown as held together by means of bands K—one at the center and one at each end—and one end of the sleeve at the bearing is made fast to the axle by means of screws *d d*, passing through the bearing and into the shaft B, as shown. The other portion of the shaft turns freely in the opposite end of the sleeve, thereby allowing each wheel to turn independently of the other.

What I claim as my invention is—

1. The combination, with an axle divided in its center, having shoulders *b b* on the inner ends of greater diameter than the axle, of a sleeve, C, in two longitudinal parts secured together by lugs and bolts on its outer side, and having bearings E E in its center, with a recess between them to hold the shoulders of the axle and to receive the lubricating substance, as set forth.

2. In combination with an axle divided in its center, having shoulders *b b* on the inner convex ends of greater diameter than the axle, of a disk, F, concave on its sides, and held between the ends of the axle by a pin through its center, and of a sleeve, C, in two longitudinal parts secured together, having bearings E E, with a recess between them to hold the shoulders of the axle, as set forth.

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

REYNOLDS T. WHITE.

Witnesses:
J. H. ADAMS,
E. PLANTA.