

(No Model.)

W. WHARTON, Jr.
MOTOR SUPPORT FOR RAILWAY CARS.

No. 433,754.

Patented Aug. 5, 1890.

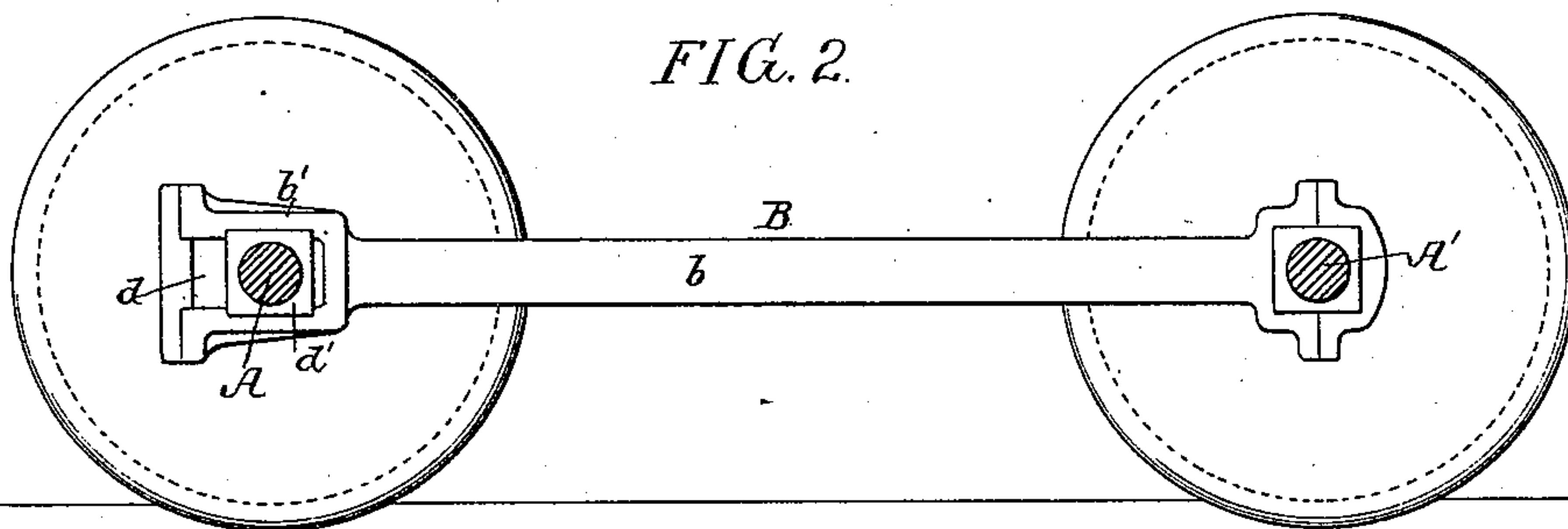
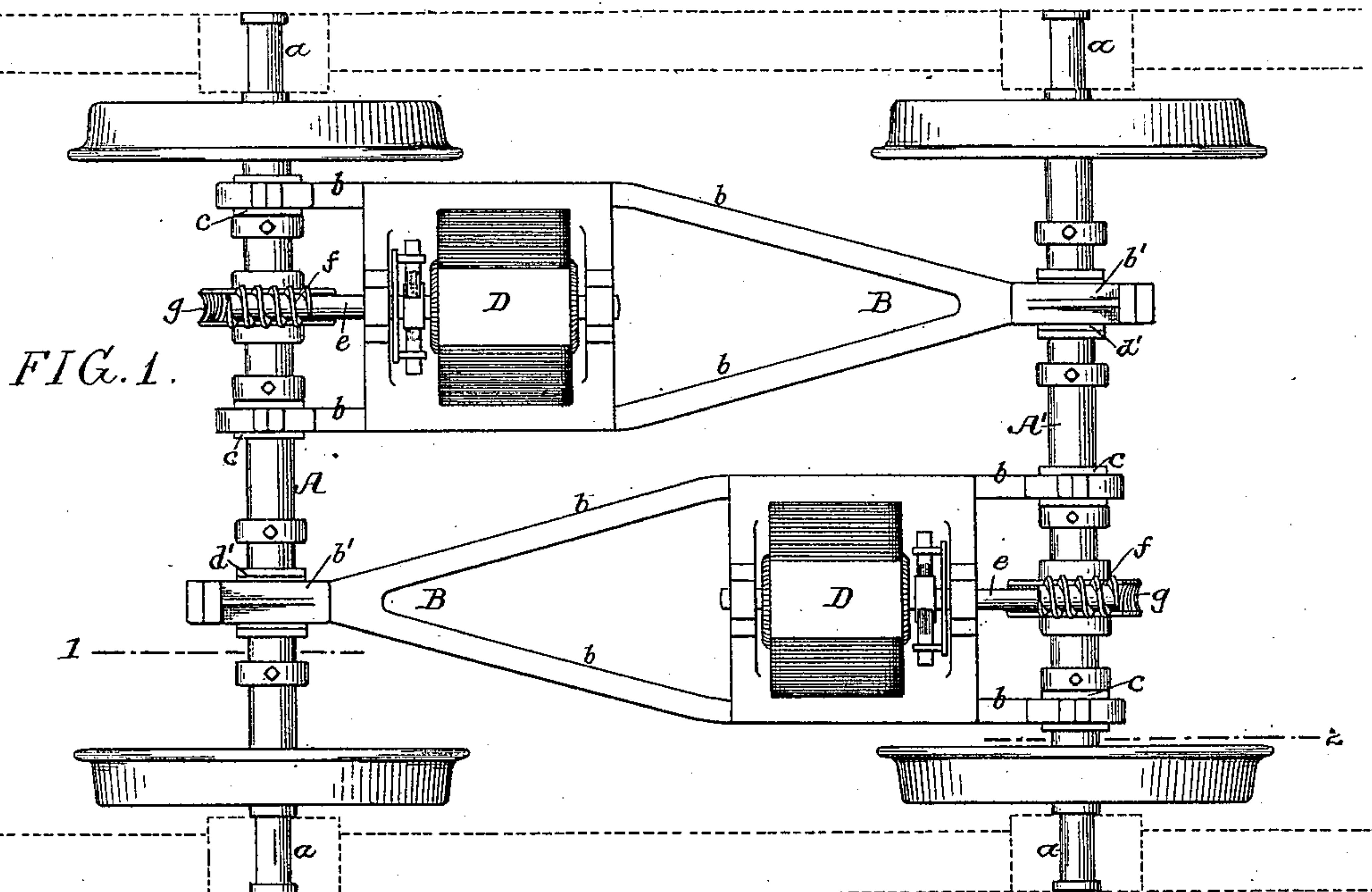


FIG. 4.

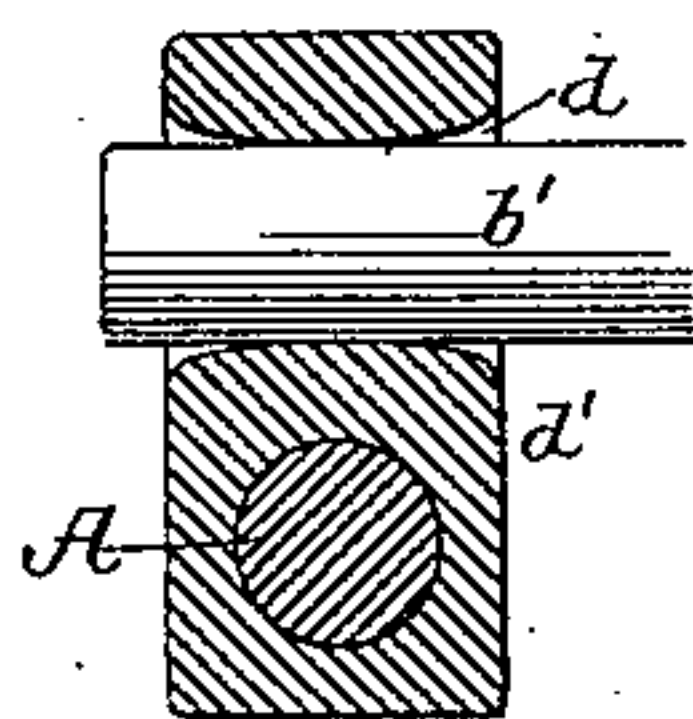
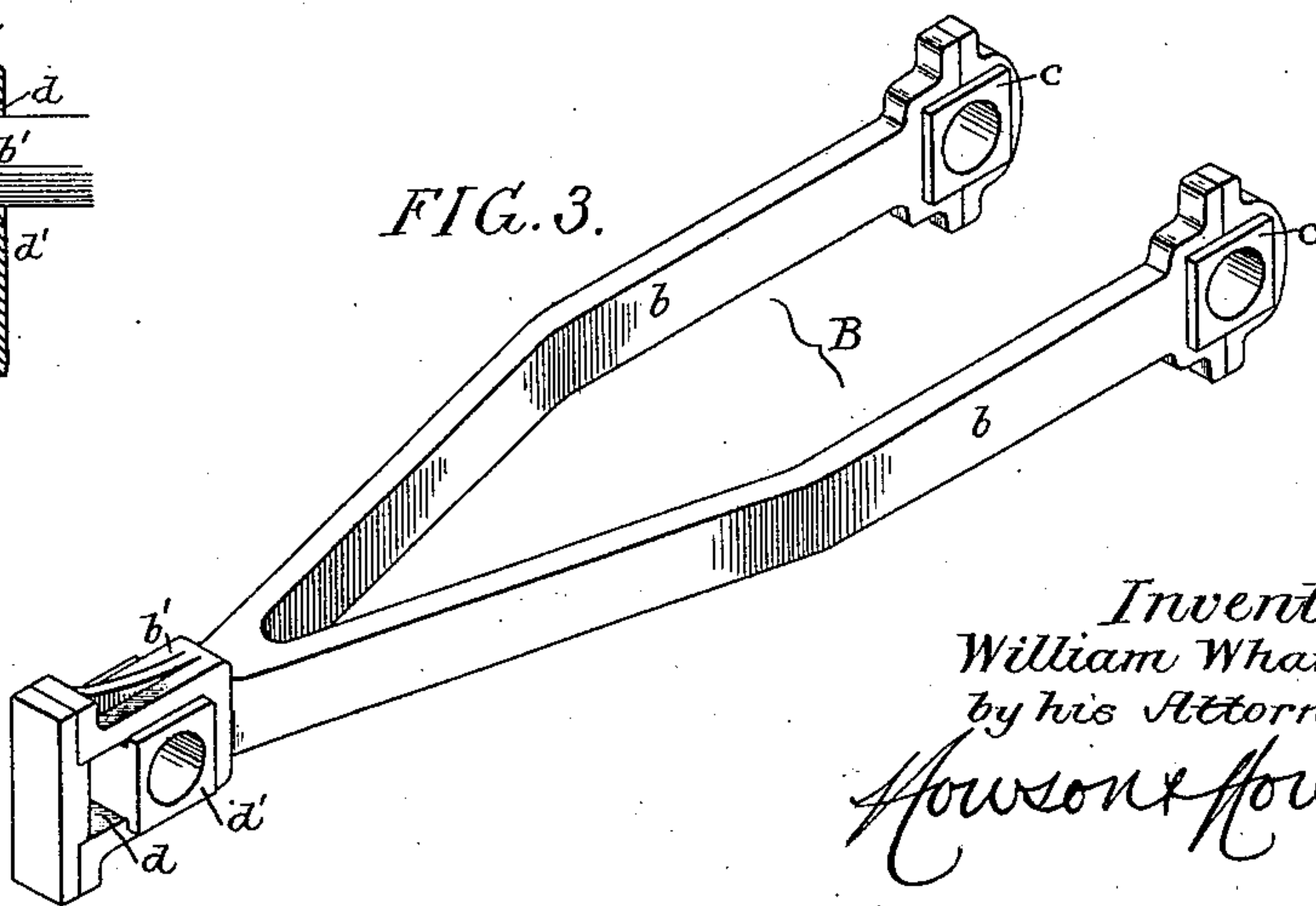


FIG. 3.



Witnesses:
Jno. E. Parker
Alex. Barkoff

Inventor:
William Wharton, Jr.
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

WILLIAM WHARTON, JR., OF PHILADELPHIA, PENNSYLVANIA.

MOTOR-SUPPORT FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 433,754, dated August 5, 1890.

Application filed February 9, 1888. Serial No. 263,458. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WHARTON, Jr., a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Motor-Supports for Railway-Cars, of which the following is a specification.

The object of my invention is to so construct the carrying-frame for a car-motor and to so hang the same to the axles that each axle will have free play in all directions without deranging the motor or the driving-gear.

In the accompanying drawings, Figure 1 is a plan view showing two axles of a car with two motors and their carrying-frames and gearing, the boxes and car-frame being shown in dotted lines. Fig. 2 is a section on the line 1 2, Fig. 1, with the motor removed from the frame. Fig. 3 is a perspective view of the frame; and Fig. 4 is a view illustrating a modification.

A A' are the two axles of a car or car-truck, having journals *a*, adapted to the usual spring-boxes, as shown by dotted lines in Fig. 1.

B is a yoke-frame, having two arms *b b*, provided with boxes *c* clamped thereto and fitting snugly on the axle A.

b' is a rear arm having a slotted end *d*, in this instance provided with a box *d'*, adapted to slide in the slotted end *d*, which is not confined to any fixed position on the axle A' supporting it, but can move laterally thereon, as occasion may require. I do not limit myself to this construction, as the rear arm may be made in other ways—as, for instance, that shown in Fig. 4, in which the rear arm is adapted to freely slide in a loose box on the axle.

On the frame B is carried the motor D, which in this instance is illustrated as an electric motor, with a shaft *e*, provided at its outer end with a worm *f*, meshing in a worm-wheel *g* on the axle A.

It will be understood that the two axles A A' are independent as regards movement in all directions, and it is the object of my invention to permit this independent movement of the

axles without deranging the motor or gearing. I therefore hang or pivot the two arms of the yoke-frame to that axle with which its motor is in gear, so that it can have no movement but a swinging concentric movement thereon, and I support the opposite end of the frame upon the other axle. In the drawings, for instance, the frame carrying the motor D is hung or pivoted to the axle A, with which the motor is geared, so that no motion of the axle in any way whatever will interfere with the proper meshing of the gear connecting the motor with the axle; but the rear arm *b'* of the frame merely rests on the axle A' in such a way that it is not confined to any fixed position thereon, either transversely or longitudinally.

I have shown in Fig. 1 two frames, one hung or pivoted to the axle A and the other to the axle A', each provided with a motor independent of each other, so that either one or both of the motors may be used as circumstances require.

I claim as my invention—

1. The combination of the two axles of a railway-car or car-truck, a motor-carrying frame having fixed boxes at one end and slotted at the opposite end, and a box adapted to slide in said slot and loose on the car-axle, with a motor mounted on the frame and geared to the axle to which the fixed boxes are applied, substantially as set forth.

2. The combination of the two axles A A' of a railway-car or car-truck, a motor-carrying frame having two arms *b b* at one end, a single slotted arm *b'* at the opposite end, boxes *c*, clamped to the said arms *b* and fitting snugly the axle A, and a box *d'*, adapted to slide in the slotted arm *b'* and loose on the axle A', substantially as set forth.

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

WILLIAM WHARTON, JR.

Witnesses:

JOSEPH H. KLEIN,
HARRY SMITH.