

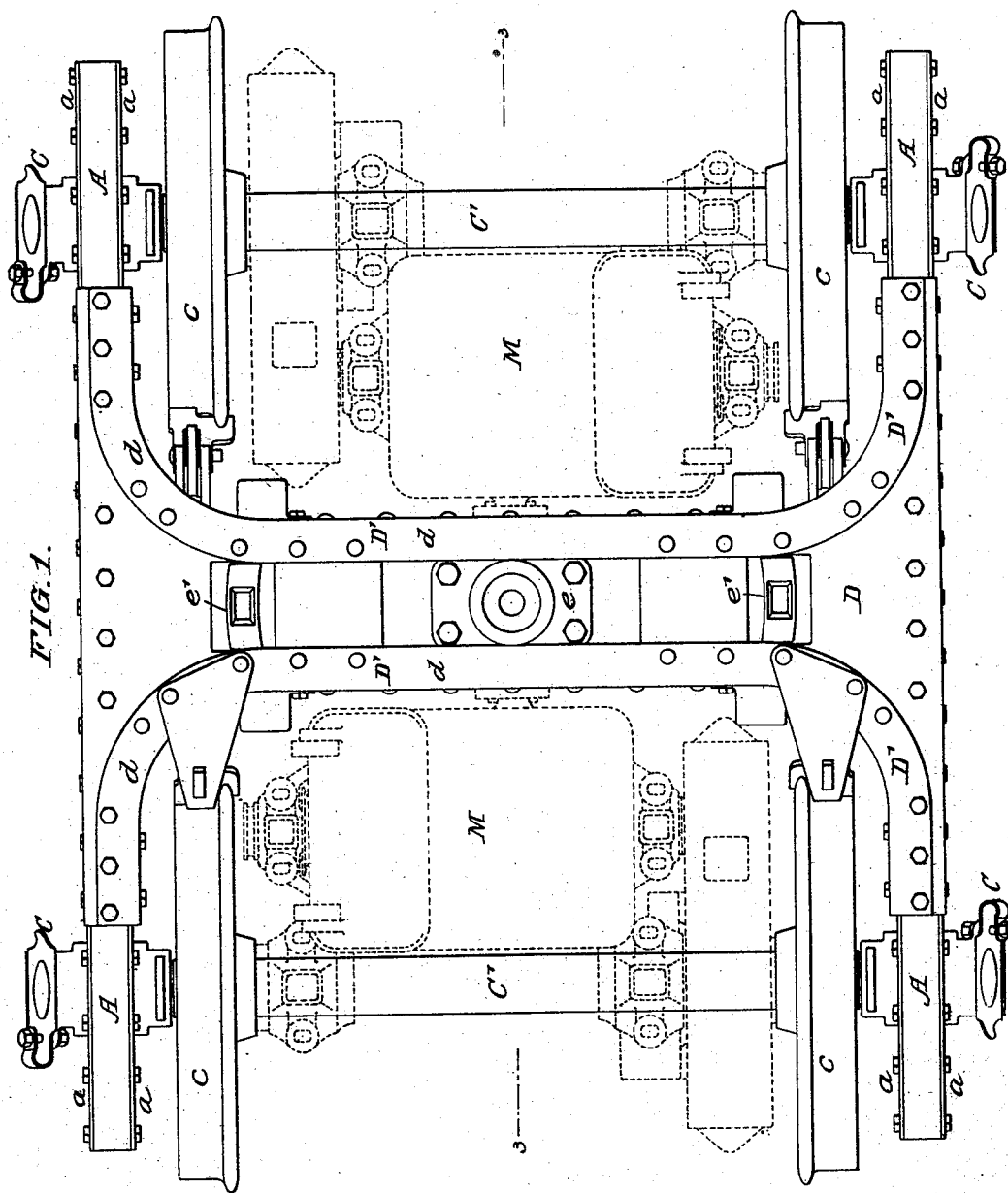
(No Model.)

3 Sheets—Sheet 1.

D. L. BARNES.
TRUCK.

No. 567,444.

Patented Sept. 8, 1896.



Witnesses:

Hamilton D. Turner.
Charles De Cou.

Inventor:

David L. Barnes
by his Attorneys
Horsman & Horsman

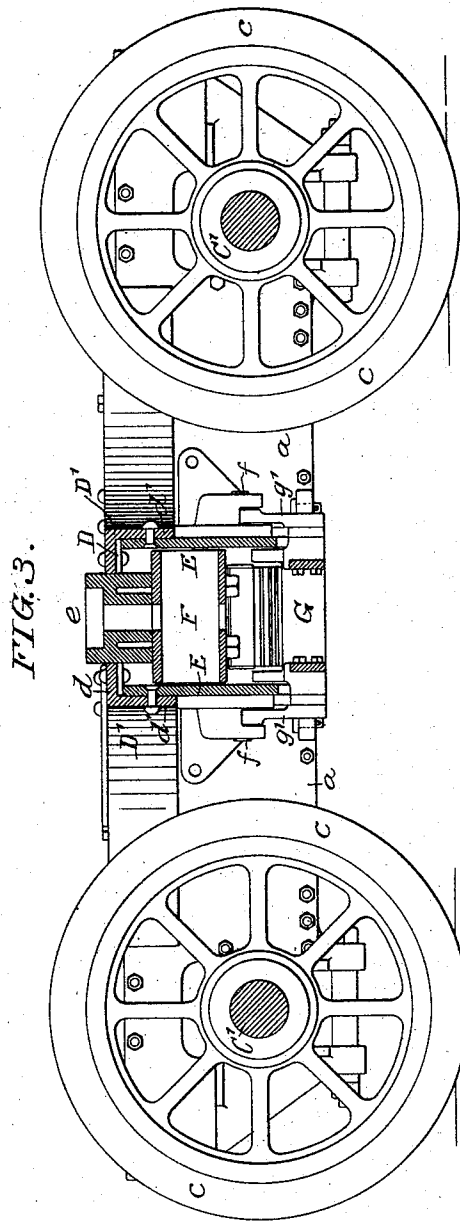
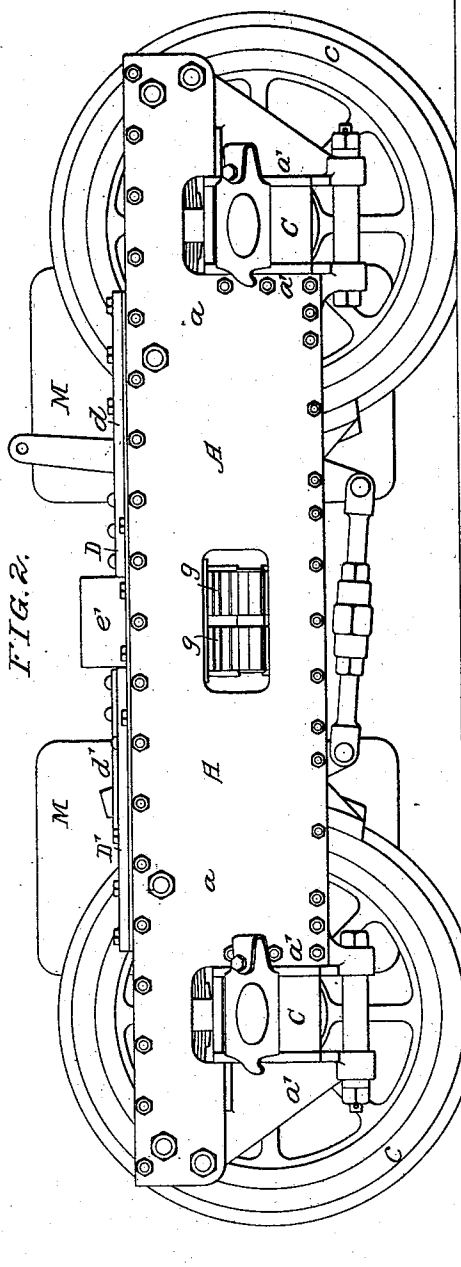
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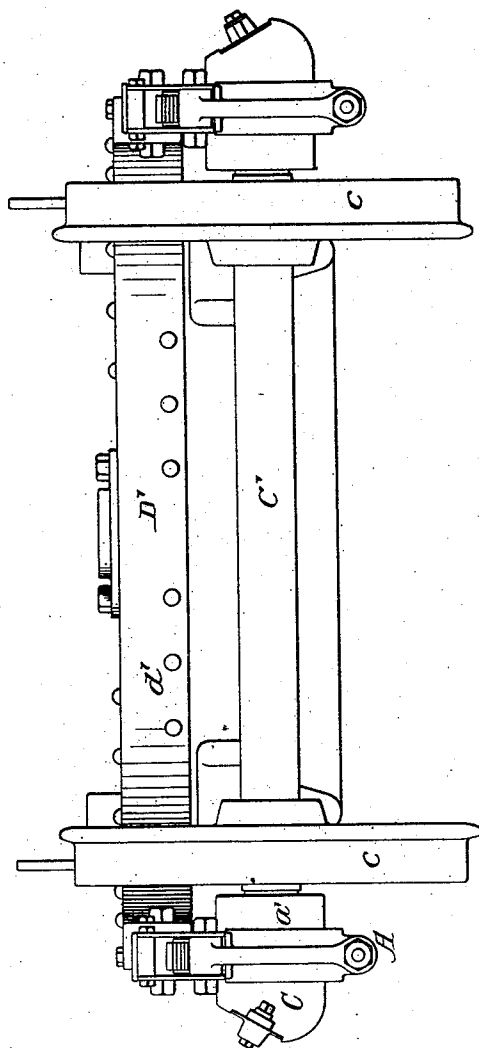
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FIG. 4.



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David L. Barnes
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Howson & Howson

UNITED STATES PATENT OFFICE.

DAVID L. BARNES, OF CHICAGO, ILLINOIS.

TRUCK.

SPECIFICATION forming part of Letters Patent No. 567,444, dated September 8, 1896.

Application filed March 19, 1896. Serial No. 583,936. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. BARNES, a citizen of the United States, and a resident of Chicago, Illinois, have invented certain Improvements in Trucks, of which the following is a specification.

My invention relates particularly to the trucks of electric locomotives, but it will be understood that my improvements can be used on rolling-stock in general without departing from my invention.

The object of my invention is to stiffen the truck so that it will withstand the strains to which the truck of an electric locomotive is subjected.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a side view. Fig. 3 is a section on the line 3 3, Fig. 1; and Fig. 4 is an end view.

A A are the side frames of the truck, each side frame, in the present instance, being composed of two plates *a a*, secured together and to distance-pieces by rivets or bolts.

The pedestals *a'* for the journal-boxes C are, in the present instance, made in the manner described and claimed in the application for patent filed by George Westinghouse, Jr., one side of each pedestal being rigidly attached to the side frame of the truck, while the other side of the pedestal is movable, so that it can swing to allow for the ready removal of the axle and its box from the truck.

On the axle C' are the wheels *c c*.

Extending from one frame A to the other is a top plate D, made in one piece, in the present instance, and reduced in width at the center, but extended at each end, these extensions being secured to the frames A by rivets or bolts.

In order to stiffen the truck and make it perfectly rigid, I secure to each edge of the plate D angle-plates D', curved at each end to conform to the shape of the top plate D. The upper flange *d* of each angle-plate rests upon the top plate D, and the deep depending flange *d'* is secured to transverse plates E E, forming a box for the bolster F, which has an open bottom, so that the bolster and its springs can be removed from the bottom of the truck.

The top plate D has a central opening and side openings for the passage, respectively, of the center plate *e* and the side bearing-blocks *e'*.

The swinging plate G carries the springs *g g*, one set at each end, and is suspended by links *g'* from studs *f*, secured to the plates E. The springs *g g* support the bolster F. Openings are formed in the side frames A opposite the springs, so that access may be had to them and to the bolster.

I have shown brake mechanism in Figs. 1 and 2, although this mechanism forms no part of my present invention, but is shown simply to illustrate the method of applying the brakes to this form of truck, and I have also shown in Fig. 2 the motors M M, which are hung to each axle and suspended from the truck.

It will be seen by the above description that my invention is especially applicable to electric-locomotive trucks where the space between the center box or beam of the truck and the axles has to be entirely free for the reception of the motors, and by making the truck with simply a single center beam composed of the two angle-plates curved at each end and the top plate and side plates I make a truck which is rigid in every respect and will readily support the weight without encroaching upon the room reserved for the motors.

I claim as my invention—

1. The combination in a truck, of the side frames, the transom, and angle-plates curved at each end, one flange of each angle-plate extending on top of the side plates and transom, the other flange extending down the side of the transom and side plates, substantially as described.

2. The combination of the side frames of a truck having pedestals therein, a top plate extending from one side frame to the other narrow at the center and wide at each end where it is secured to the side frames, an angle-plate on each edge of the said plates, one flange of the angle-plate being secured to the top plate and the other flange extending downward, substantially as described.

3. The combination of the side frames, pedestals therein, a top plate extending from

one frame to the other, vertical plates under
the top plate and angle-plates, one flange of
each angle-plate being secured to the top
plate and to the side frames, the other flange
5 being secured to the vertical plates and to
the side frames, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

DAVID L. BARNES.

Witnesses:

JAMES G. KEYS,
HENRY HOWSON.