

916,556.

WITNESSES
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UNITED STATES PATENT OFFICE.

CLARENCE H. HOWARD, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CAST STEEL TENDER AND ENGINE TRUCK COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF DELAWARE.

LOCOMOTIVE-ENGINE TRUCK.

No. 916,556.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed August 15, 1908. Serial No. 448,707.

To all whom it may concern:

Be it known that I, CLARENCE H. HOWARD, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Locomotive-Engine Trucks, of which the following is a specification.

My invention relates particularly to a locomotive engine four-wheel truck, and is in the nature of an improvement on the Letters Patent of the United States granted to Thomas E. Adams, September 4, 1906, Number 830,274, for an improvement in engine-trucks, in which the side frames having the pedestals and spring-seats integral therewith are separately constructed from, and fixed to the transverse beam or center-bearing frame, by rivets or bolts, which are liable to work loose and impair the rigidity of the truck. In this truck also, for removing the wheels and axles, it is necessary to raise the engine sufficiently for enabling the wheels and axles to clear the end pedestals thereby causing trouble, expense, and delay.

My invention has for its object to provide a strong, compact, and positively rigid truck frame having less material and fewer parts, and to facilitate the removal of the axles.

It consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification, whereon,

Figure 1, is a top plan view of my improved locomotive engine four-wheel truck; Fig. 2, a side elevation thereof, and Fig. 3, a vertical transverse section through the truck on line 3, 3, in Fig. 1 (with its upright web in elevation for convenience of illustration).

Like letters and numerals of reference denote like parts in all the figures.

a represents my improved engine-truck which is composed preferably of cast steel and consists of the two opposite side frames (or wheel-pieces) *b* having the spring-seats integral therewith, and the transverse beam *c* which is integral with, and unites the side frames *b* together in the middle, the transverse beam *c* having the center-bearing 2 and the side-bearings 3 integral therewith and perforated vertically through the center-bearing 2 for the king-bolt (not shown).

The side frames *b* and the transverse beam, or center-bearing frame, *c* in the present case, are preferably rectangular bar-shaped, and I-shaped respectively, in cross section, and are preferably formed at their junctions with each other with corner gusset-fillers 4 for insuring the maximum rigidity of the truck thereat. To the side frames *b* on their underside, are fixed the axle-box pedestals *d* by bolts 5, whereby the pedestals *d* can be readily removed from the truck frame for repair or renewal without disconnecting and scrapping the side frames.

By the above construction the side frames *b* and the center-bearing beam *c* are combined in a single, homogeneous, strong, and rigid casting of compact and economical form; whereas if made separately and fixed together by flanges and rivets or bolts as in the said patent, the weight of material is increased and the fastenings, under the constant jar and shocks to which they are subjected to in service, are liable to work loose and cause ultimate breakage and collapse of the truck; moreover, by fixing the pedestals *d* to the side frames *b* in lieu of being integral therewith; either pedestal if broken, can be disconnected and renewed without interfering with the other parts of the frame, and by disconnecting the end pedestals the wheels and axles can be removed from the truck without the necessity of raising the engine to an excessive height as is the case where the pedestals are integral with the side frames.

What I claim as my invention and desire to secure by Letters Patent is:—

A cast metal engine truck-frame, consisting of two opposite side members rectangular bar-shaped in cross section adapted for the attachment thereto of the axle-box pedestals and having the spring-seats integral therewith, a middle transverse member I-shaped in cross section uniting the side members together and having the center-bearing integral therewith, and gussets at the junctions of the said members with each other, substantially as described.

CLARENCE H. HOWARD.

Witnesses:

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