(No Model.)

A. J. PITKIN.

CAR TRUCK.

No. 304,558. Patented Sept. 2, 1884.

Fig. 1.

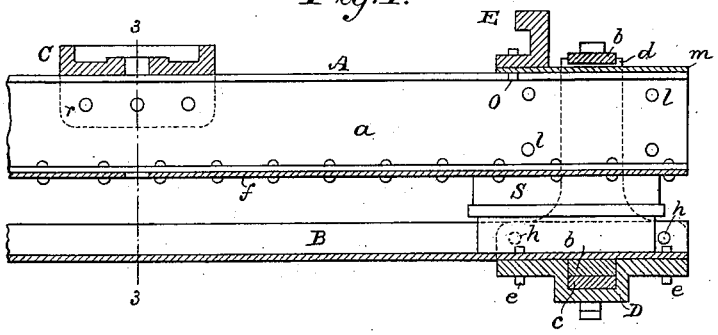


Fig. 2.

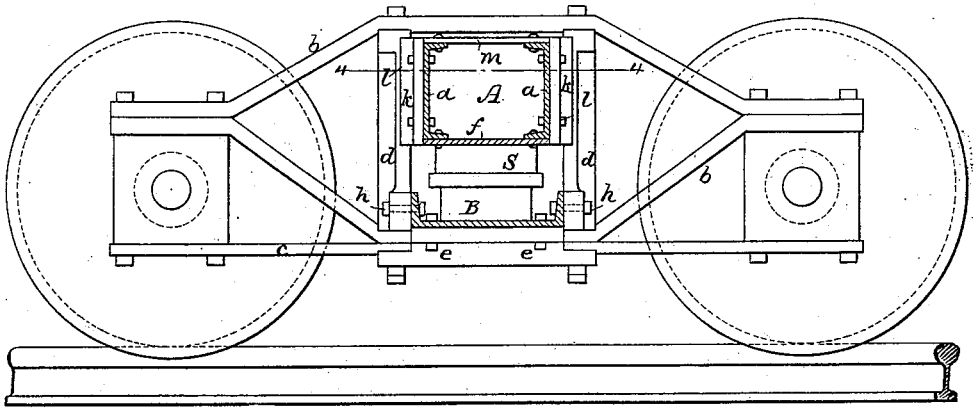


Fig. 3.

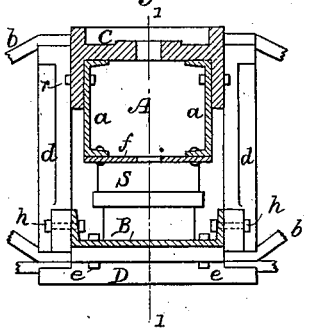


Fig. 4.

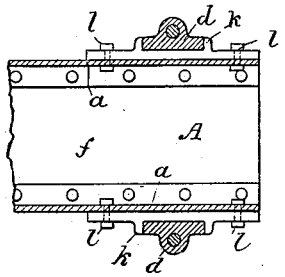


Fig. 5.

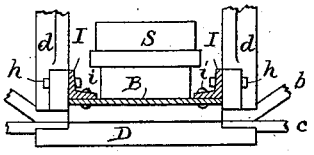
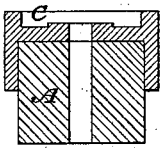


Fig. 6.



Witnesses

Wm A. Skinkle

H. W. Elmore.

Inventor

A. J. Pitkin

By his Attorneys.

Baldwin, Hopkins & Peyton

UNITED STATES PATENT OFFICE.

ALBERT JOHNSON PITKIN, OF SCHENECTADY, NEW YORK.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 304,558, dated September 2, 1884.

Application filed May 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALBERT JOHNSON PITKIN, of Schenectady, in the county of Schenectady and State of New York, have invented certain new and useful Improvements in Railroad-Car Trucks, of which the following is a specification.

The object of my invention is to improve the construction of the body of the truck by reducing its weight without impairing its strength; and the invention consists, primarily, in an improved organization for accomplishing this result. My improved trucks thus simplified in structure and organization contain not only less material, and are therefore much lighter than the ordinary truck, but also can be built with greater facility.

In the accompanying drawings, Figure 1 is a longitudinal section on the line 1 1 of Fig. 3 through one end or side of a truck-body. Fig. 2 is an end view, partly in section, showing the trusses and the carrying-wheels. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a section on the line 4 4 of Fig. 2. Fig. 5 is a detail view showing a somewhat modified construction of the channel-plate, and Fig. 6 is a detail view showing a modified arrangement of floating bolster.

The arch-bars *b b* and the tie-bar *c*, which embrace the transom-columns *d d*, are of the usual construction. The transom-columns *d d* are, however, preferably wider than those usually employed, especially at their lower ends, where they are extended on each side, as indicated clearly in dotted lines in Fig. 1.

The channel plate or iron B which supports the truck-springs and floating bolster, hereinafter described, is bolted on each side to the transom-columns *d* by bolts *h*, as clearly illustrated in Figs. 1, 2, and 3. This channel-iron is preferably also bolted to a clamp casting or plate, D, by bolts *e*, which pass through the bottom of the channel-plate and through the sides or wings of the clamp-casting. This clamp-casting, as clearly illustrated in Fig. 1, is formed with a central socket or depression which embraces the tie-rod *c* and the lower arch-bar, *b*, and the lower ends of the transom-column bolts also pass through it.

A modification of the structure thus far described is illustrated in Fig. 5, in which it will be seen that the channel-plate B is composed of a flat bottom plate, B, and angle-irons I, which are bolted together by bolts *i*, and to the transom-columns, as before described, by bolts *h*. My improved truck-body, when constructed in this manner, is firm, rigid, and strong, and yet is lighter than the ordinary body, as the side plates are entirely dispensed with. In the old construction the side plates and channel-plate really formed a box which was held at each end between the transom-columns. In my improved structure, however, the sides of the body are entirely open, and the floating bolster plays up and down between the transom-columns on each side of the truck-frame.

The springs C, which carry the truck-bolster A, rest upon the channel-plate B, as clearly shown in Figs. 2, 3, and 5. The truck-bolster, illustrated in Figs. 1 and 2, is formed by two side channel plates or bars connected by a plate, *f*, on the bottom, and by a plate, *m*, on top, and suitably riveted together; or, as shown in Fig. 3, the top plate, *m*, may be dispensed with, as the side channel-plates, *a*, will be firmly and rigidly held at the top by the king-bolt socket or center plate, C, to which the side plates of the bolster are bolted, as shown at *r*. I may, however, use a bolster made of a solid beam of wood, as clearly illustrated in Fig. 5. Each end of the bolster is provided on each side with a guide-plate, K, bolted to it at *l*, which embraces the sides of the transom, so as to prevent end-play of the bolster, as clearly illustrated in Fig. 4. With this arrangement any end-thrust of the bolster is of course received by the transom-columns on both sides of the truck. The bolster is provided with ordinary side bearings, E, for the car-body, and a center plate or king-bolt socket, C. The king-bolt passes entirely through the bolster, and is to be provided on the under side with a suitable key, as usual.

I claim as my invention—

1. The combination, substantially as set forth, of the open-sided or skeleton truck-frame, consisting solely of the transom-columns and the shallow bottom channel-plate bolted thereto, the brace-bars, and a floating bolster located between the transom-columns, and guided vertically thereby.

2. The combination, substantially as set

forth, of the transom-columns, the channel-plate, the brace-bars, and the clamp-casting D.

3. The combination, substantially as set forth, of the channel-plate, the brace-bars, and the clamp-casting.

4. The combination, substantially as set forth, of a truck-body, a bolster consisting of the combination of side channel-plates, an independent bottom plate bolted to the channel-plates, and a king-bolt socket or plate bolted to the upper sides of said channel-plates.

5. The combination, substantially as set forth, of a truck-body and a bolster consisting of the combination of side channel-plates and independent top and bottom plates bolted to the side plates.

In testimony whereof I have hereunto subscribed my name.

ALBERT JOHNSON PITKIN.

Witnesses:

WM. HOWES SMITH,

GEO. S. CLARE.