June 17, 1924.

1,498,046

J. C. LARSEN

CAR TRUCK

Filed April 7 1923

Fig. 1.

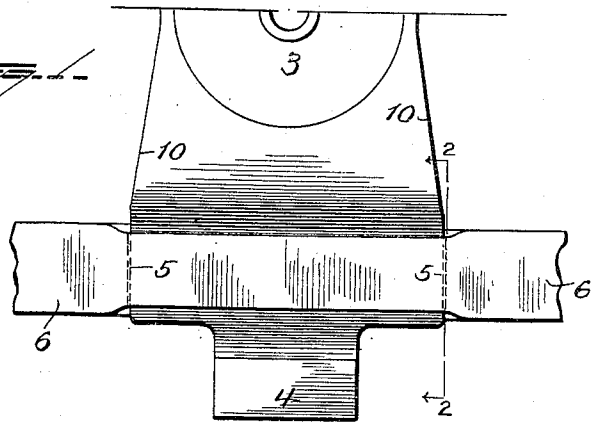


Fig. 3.

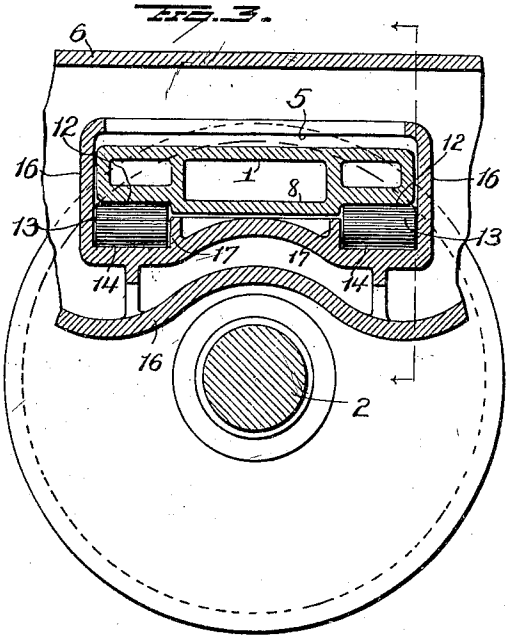
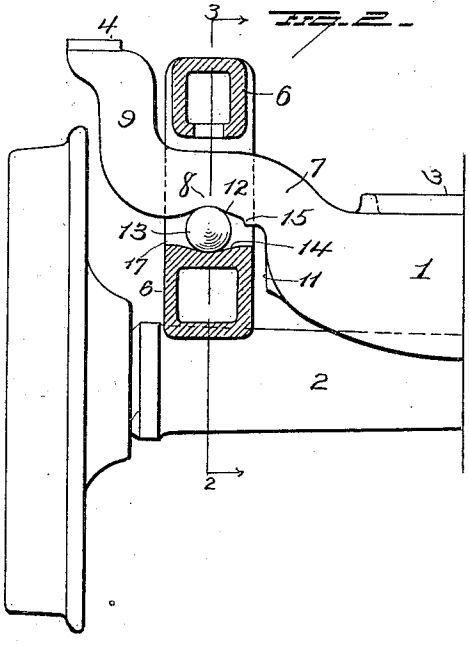


Fig. 2.



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UNITED STATES PATENT OFFICE.

JACOB C. LARSEN, OF COLUMBUS, OHIO, ASSIGNOR TO THE BUCKEYE STEEL CASTINGS COMPANY, OF COLUMBUS, OHIO.

CAR TRUCK.

Application filed April 7, 1923. Serial No. 630,541.

To all whom it may concern:

Be it known that I, JACOB C. LARSEN, a citizen of the United States, and a resident of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car Trucks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to car trucks and has special reference to the six-wheel type of trucks in which there are a plurality of longitudinal and transverse bolsters. While efficient trucks of the six-wheel type have been heretofore produced, it has been found at times desirable to have greater lateral flexibility than exists in the present standard construction. The object of the present invention, therefore, is to provide a novel construction which will provide an increased lateral flexibility in the connection between the main central transverse bolster and the longitudinal bolsters without materially affecting the cost of production or diminishing the stability or durability of the truck. This object is attained in the structure illustrated in the accompanying drawing in which Figure 1 is a plan view of a portion of the center and longitudinal bolster; Figure 2 is a transverse section on the line 2—2 of Figure 1, and Figure 3 is a section on the line 3—3 of Figure 2.

The main center bolster 1 is disposed over the central axle 2 and is constructed to provide the usual center bearing, as at 3, and has shelf-like projections 4 at its ends to support the side bearings. The end portions of the center bolster pass through openings 5 at the centers of the longitudinal or side bolsters 6 whereby the load is distributed through the front and rear cross bolsters and the other portions of the truck. By referring to Figures 2 and 3 it will be noted that the body of the center bolster is disposed approximately in the horizontal plane of the portion of the side bolster below the opening 5, and that said opening is disposed centrally over the axle and extends to each side of the vertical plane of the axle. At the inner side of the side bolster, the center bolster is turned upwardly, as shown at 7, and then formed into a bearing arm 8 which passes through the opening 5, a shank or stem 9 rising from said arm at the outer side of the side bearing to carry the shelf 4. It will also be noted that the side faces 10 of the center bolster diverge toward the side bolster so that a wide bearing and support at the end of the center bolster is provided, the vertical surface 11 of the center bolster constituting a stop to impinge against the inner opposed surface of the side bolster and limit the relative outward movement of the center bolster. In the bottom surface of the arm 8, at the sides thereof, are recesses 12 of arched form constituting upper seats or ways for rollers or other anti-friction devices 13, the lower seats or ways for said devices being provided by depressions or cavities 14 in the lower walls of the openings 5. The inner ends of the seats 12 furnish stops 15 to prevent the rollers escaping at the inner side of the side bolster, and endwise movement of the rollers is prevented by the end walls 16 of the opening 5 and by the vertical shoulders 17 formed at the inner ends of the cavities 14, as shown most clearly in Figure 3.

From the foregoing description, taken in connection with the accompanying drawing, it will be seen that I have provided a construction which will permit a limited lateral movement of the center bolster relative to the side bolster so that the easy-riding qualities of the truck, as when passing around sharp curves, for instance, will be greatly enhanced. The parts are compactly arranged so that the strength of the truck is not impaired and frictional resistance to relative movement of the bolsters is practically eliminated.

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. In a car truck, the combination of a side bolster having an opening therethrough, a transverse bolster having an end portion passing through said opening, a seat in the under side of said end portion, a seat in the bottom wall of the opening through the side bolster, and an anti-friction device fitted to said seats.

2. In a car truck, the combination of a side bolster, a transverse bolster, opposed coacting seats in the bolsters, and an anti-friction device fitted in and held by and between said seats.

3. In a car truck, the combination of a

side bolster having a transverse opening therethrough, a transverse bolster having an end portion passing through the opening in the side bolster and having vertical portions at the opposite sides of the side bolster, the side faces of the transverse bolster diverging toward the ends of the same, cavities in the bottom wall of the opening through the side bolster, recesses in the under side of the transverse bolster mating with said cavities, and rollers seated in said recesses and cavities.

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

JACOB C. LARSEN.

Witnesses:
WM. W. MATCHNEER,
MERRITT R. HANSEN.