(No Model.)

E. G. GIBSON.

CAR TRUCK.

No. 517,688. Patented Apr. 3, 1894.

Fig. 1.

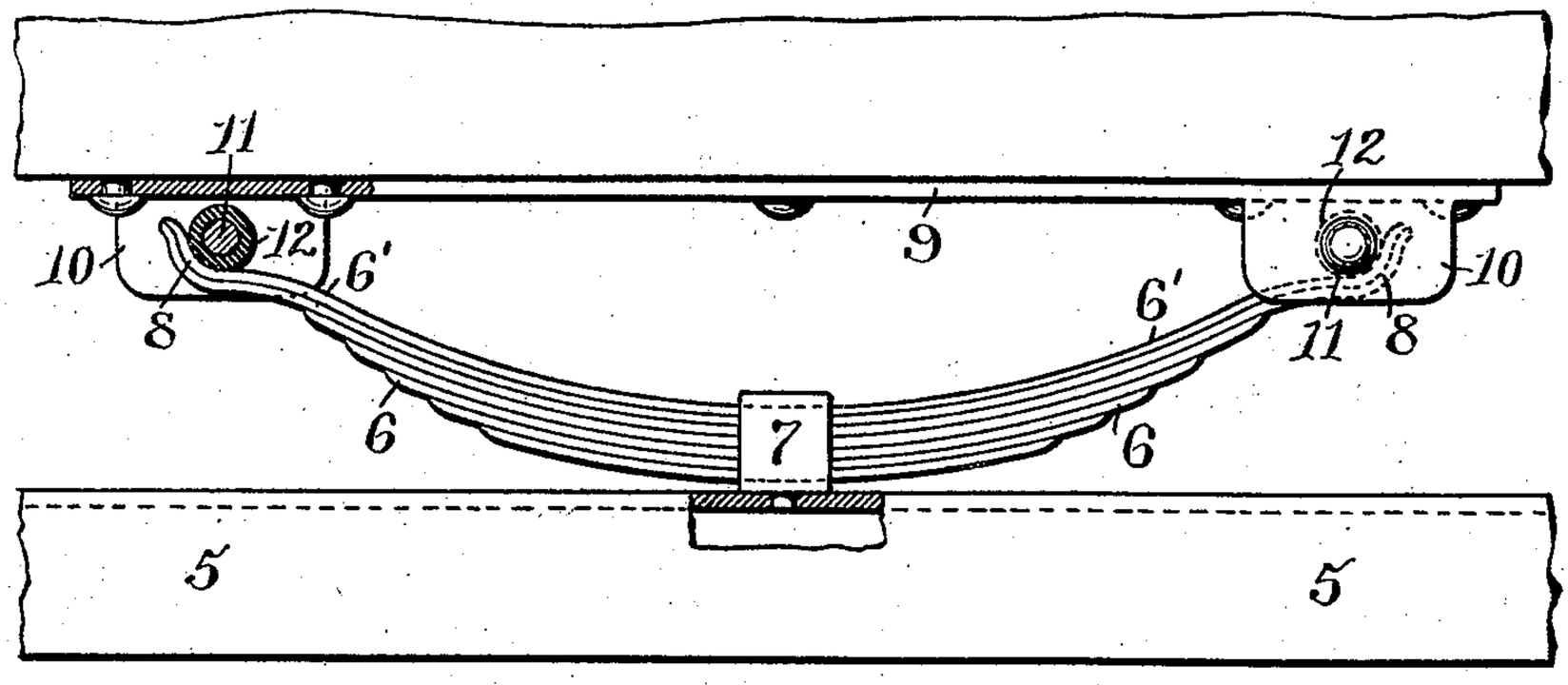
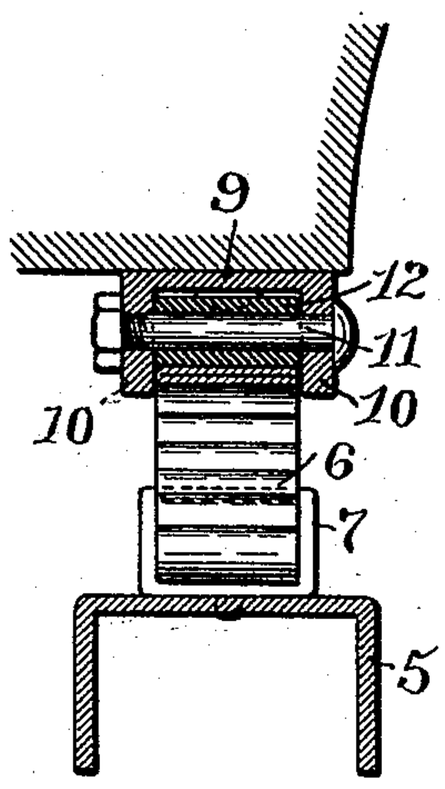


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EVERETT G. GIBSON, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO EDGAR G. DURFEE, OF SAME PLACE.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 517,688, dated April 3, 1894.

Application filed November 20, 1893. Serial No. 491,446. (No model.)

To all whom it may concern:

Be it known that I, EVERETT G. GIBSON, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Car-Trucks; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in car-trucks in which springs are used to support the car-body.

One oject of the invention is to reduce the wear on the spring.

Another object is to so construct the bearings, which are supported by the spring, that while the ends of the spring are free to move thereon the grating of sliding parts is avoided and the wear on the bearings reduced.

The invention consists in the combination with a car-truck provided with curved springs the ends of which have concavities formed in their upper surfaces, of a bearing-plate adapted to be secured to the car-body and furnished with bearing-bolts surrounded with sleeves adapted to be received in the concavities of the spring and to rotate on the bolts as the spring bends.

The invention also consists in such other peculiar features of construction and combination of parts as may hereinafter be more fully described and pointed out in the claims.

Figure 1 represents a side view of portions of a car-body and its truck showing the improved spring and bearing, parts of the same being broken away. Fig. 2 represents a vertical sectional view of the same taken through the bearing-sleeve and one end of the spring.

Similar numbers of reference designate corresponding parts throughout.

Bearings for the ends of springs in car-trucks have heretofore been formed by bolts movable in longitudinal-slots in brackets depending from the car-body, the ends of the springs being secured to the bolts the movement of which, in the slots, allowed sufficient play for the operation of the spring,—the constant movement of the bolts in the slots produced a grating sound and subjected both the bolts and the brackets to constant wear from the reciprocating-bolts.

In carrying my invention into practice my aim has been to dispense with sliding bearings for the ends of the spring to increase the surface of contact between the spring and the bearing and at the same time to allow the ends of the spring free play for the action of the spring.

In the drawings 5 indicates the upper side-frame of a car-truck, and 6 is a spring secured to the upper surface of the side-frame by the box 7. The spring is formed from a series of leaves of graduated lengths, the two upper leaves 6′—6′ being longer than the lower leaves and having transverse concavities in their upper surfaces formed by bending the ends of these springs upward as at 8—8.

Secured to the body of the car is the bearing-plate 9 the number of these used for each car corresponding with the number of springs which are to be used on the truck,—depending from the sides of the bearing-plate are the bracket-plates 10—10, these being located near the ends of the bearing-plate, and secured through perforations in each pair of bracket-plates is a transverse-bolt 11 carrying a rotatable sleeve 12 adapted to be received in the concave portion at the end of the leaves 6′ of the spring.

The diameter of the sleeve 12 being considerably greater than that of the bolt, or pin, in the old method presents a much better bearing to the end of the spring, considerably reducing the wear on the same, while the rotation of the sleeve on the bolt allows free play to the action of the spring.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a car-truck, the combination with the side-frame, and a curved spring secured thereto and having transverse concavities in its upper end-portions, of a bearing-plate having depending bracket-plates, a shaft fixed in said bracket-plates, sleeves rotatably mounted on said shaft between said bracket-plates

and adapted to bear in the concave portions of the spring, as described.

2. The combination with the side-frame 5, the spring 6 secured thereto and provided with the leaves 6′—6′ having the bent ends 8—8, of the bearing-plate 9 adapted to be secured to a car-body and having the depending-plates 10—10, the bolts 11—11 secured through perforations in the bracket-plates, and the sleeves 12—12 loosely mounted on said bolts, as and for the purpose described.

In witness whereof I have hereunto set my hand.

EVERETT G. GIBSON.

Witnesses:
JOSEPH A. MILLER, Jr.,
M. F. BLIGH.