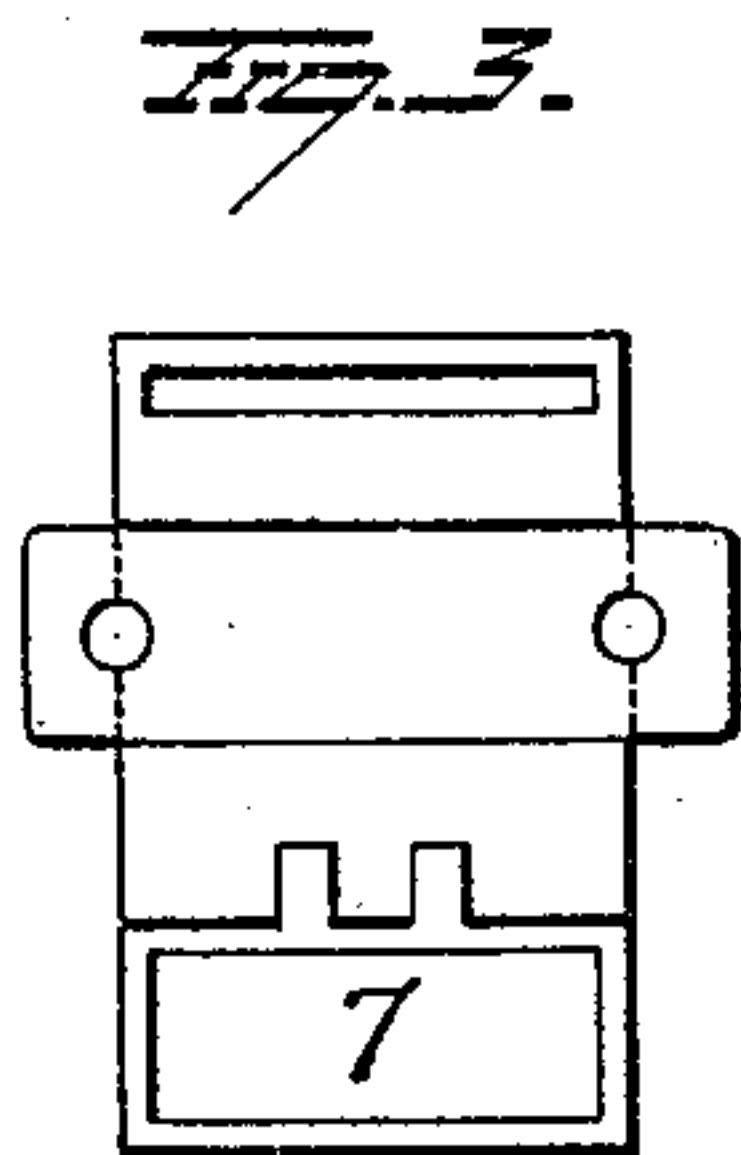
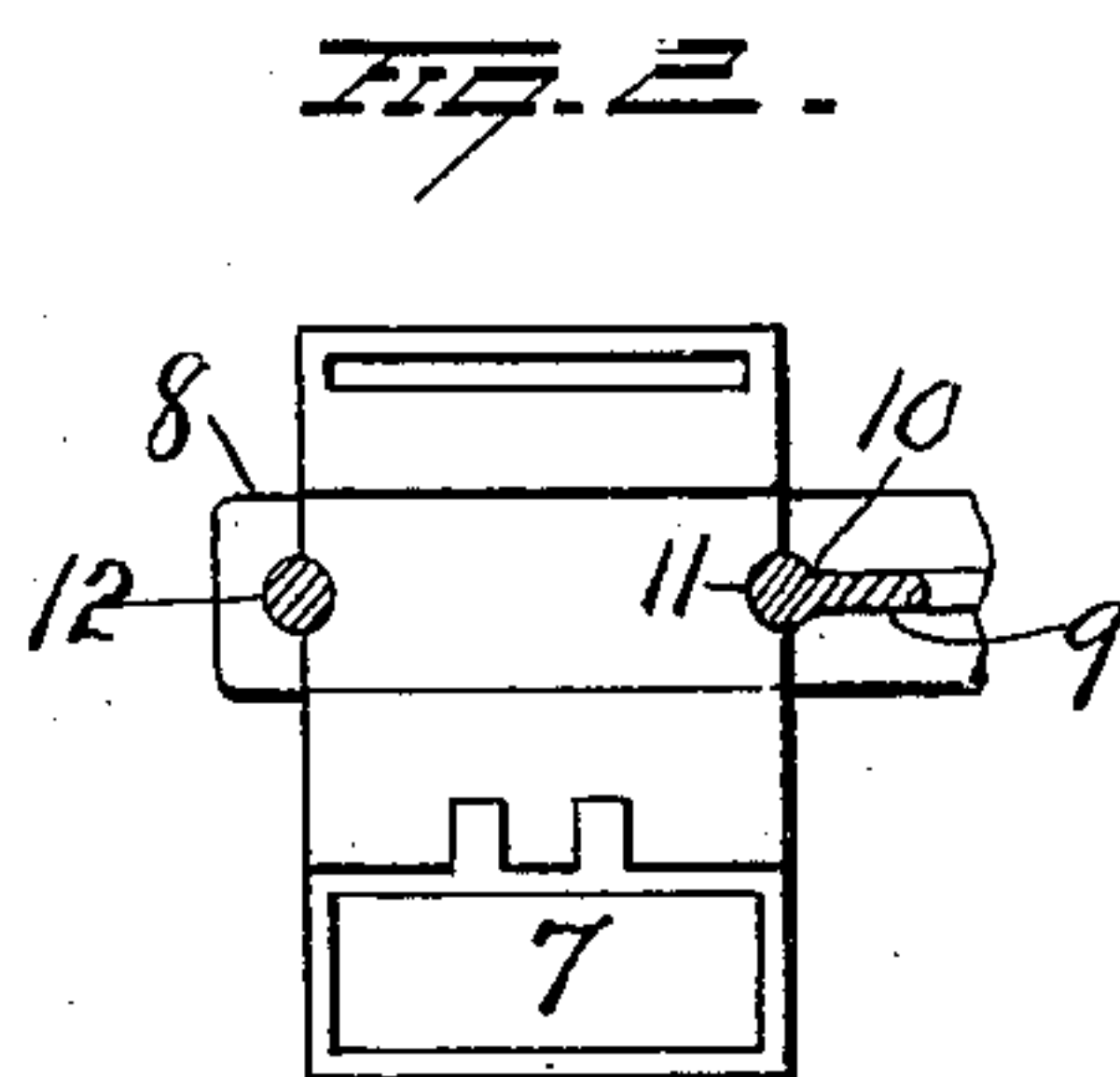
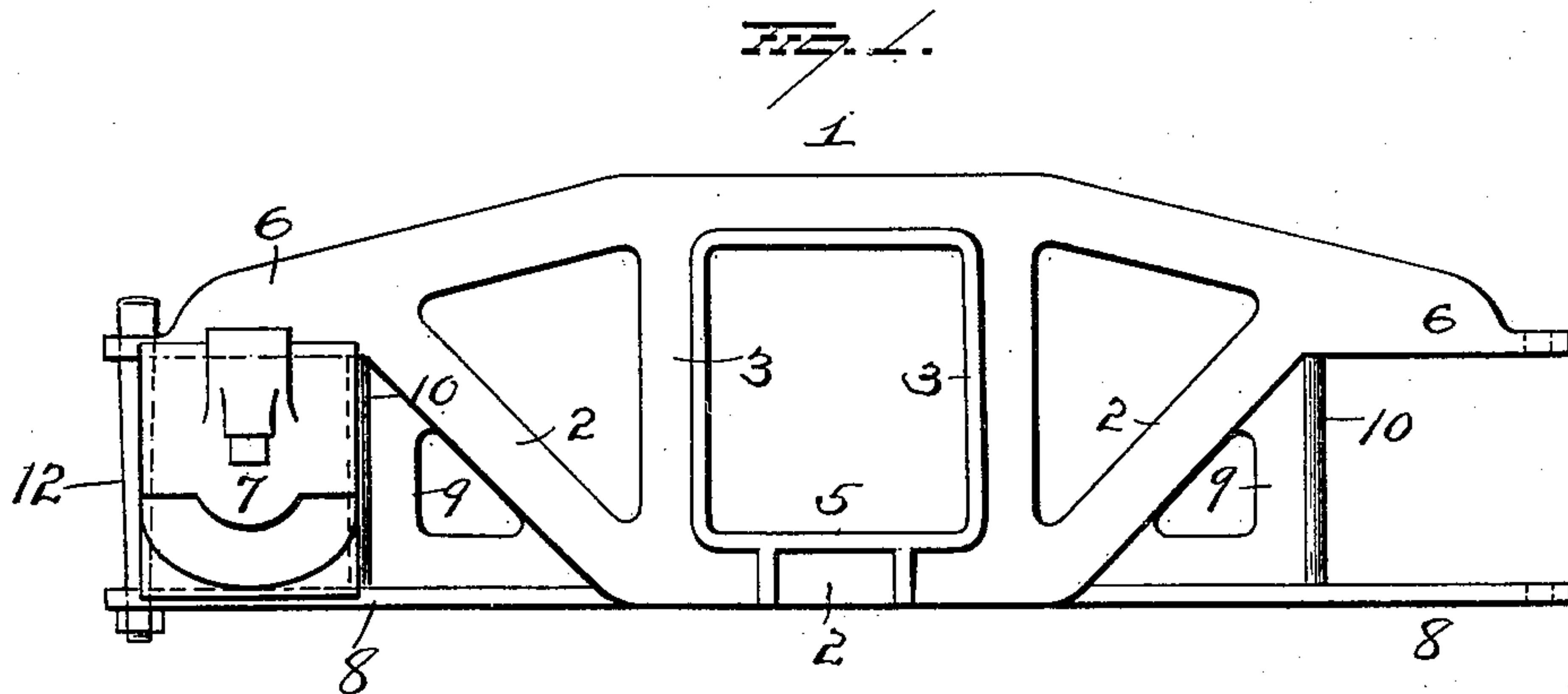


S. P. BUSH.  
CAR TRUCK.  
APPLICATION FILED AUG. 16, 1910.

991,697.

Patented May 9, 1911.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

SAMUEL P. BUSH, OF COLUMBUS, OHIO.

CAR-TRUCK.

991,697.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed August 16, 1910. Serial No. 577,469.

*To all whom it may concern:*

Be it known that I, SAMUEL P. BUSH, 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.

The invention relates to an improvement in car trucks, the object being to provide integral cast steel truck frame with journal boxes that are removable and which are secured in position in the frame for application to the journals of the axles in a very simple and effective manner, and it consists in the details of construction and combination of parts as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of the side frame of a car truck, embodying my invention. Fig. 2 is a view in plan of a journal box showing the manner of securing same in place, and Fig. 3 is a similar view of a standard M. C. B. journal box.

It is well known for many years it has been desirable to have a journal box that is removable and renewable in case of wear or accident, and in recent years it has been found highly desirable to have a truck frame made as simply, as strong, as light and with as few pieces as possible so as to avoid the danger of loose connections, lost nuts, etc., and to save much of the inspection which, for safety purposes with built-up trucks consisting of many pieces, has to be made with great frequency.

My invention consists of a structure resembling a truss, of which 1 is the upper or compression member and 2 is the lower or tension member, the two members meeting each other at either end, and being connected near the center by the two members 3 and 4, which are generally designated as column guides. Between the upper and lower members and between these column guides is an opening adapted to receive the car bolster, which may be supported by springs resting on a spring seat 5, or it may be otherwise supported. Beyond the junction of members 1 and 2 at each end of the frame, is an arm 6 which extends over and rests on top of the journal box 7 when the latter is in its position. It is the function of each arm

6, therefore, to carry one-fourth of the total load coming on the truck.

From the lower member 2, there is extended at each end of the frame, from the center, a member 8, which may be designated as tie-bars, the object of this being to supply a bottom connection to the journal boxes so as to assist in holding them securely against possible movement from application of the brakes or from shocks that a car may receive in service. From these tie-bars another member 9 is extended at each end, in a vertical direction until it meets the arm 6 and the lower member 2. These members 9 perform the function of bracing the lower members 8 and furnishes inner supports or fastenings, or both, for the journal box. In the construction here shown these members are formed with a projecting rib 10 to take the place of a journal box bolt. These ribs fit into correspondingly formed recess 11 in the journal box as shown in Fig. 2. The operation, therefore, of securing the journal box in place is as follows:—

The journal box is moved horizontally into the jaw like opening formed by the arm 6 and members 9 and 8, until one side of each box is brought up against the rib 10 of member 9. A journal box bolt 12 is then introduced on the outside of the box, extending from and through arm 6 and through the end of tie-bar 8, and is secured with a nut on the lower end. It will thus be seen that this provides a very simple arrangement for applying and removing the box, and also provides a simple and effective construction for holding the box in place. This construction has the great advantage of making it possible to use what is known as the standard M. C. B. journal box, with very slight modifications, so slight as to make it possible to apply a standard M. C. B. box for repairs by simply removing or cutting away the small amount of metal surrounding the bolt holes, as shown in dotted lines in Fig. 3, which is a very desirable accomplishment.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts shown and described, but,

Having fully described my invention what



I claim as new and desire to secure by Letters-Patent, is:—

1. A truck frame consisting of tension and compression members, joined at their ends, column guides, parallel members projecting outwardly from the tension and compression members, and a vertical member connecting each pair of parallel members adjacent the ends of the tension members, all cast integral.

2. A truck frame of truss form, consisting of tension and compression members joined at their ends, a pair of parallel members projecting at each end of the frame beyond said tension and compression members, vertical columns connecting said parallel members adjacent the ends of the compression

and tension members and provided with outwardly projecting ribs, all of said parts cast integral.

3. A cast metal truck frame having open ends for the journal boxes, the vertical side walls of said openings each having a vertical rib throughout its length, adapted to rest within a vertical recess in the side of the journal box.

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

SAMUEL P. BUSH.

Witnesses:

FRED G. BENNETT,  
GEO. G. MERRING.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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