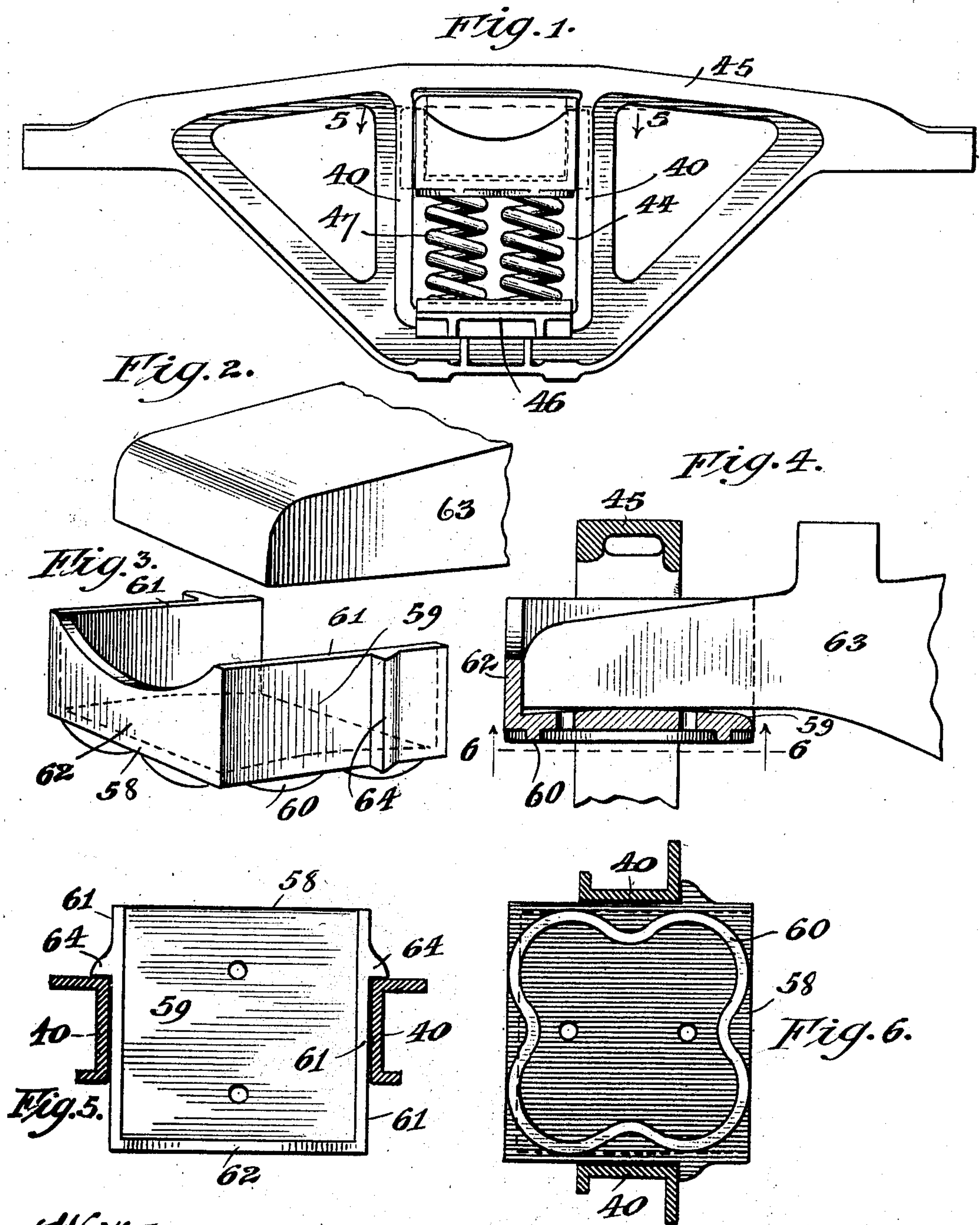


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COLUMN GUIDE FOR CAR TRUCKS.
APPLICATION FILED DEC. 7, 1907.

903,490.

Patented Nov. 10, 1908.



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UNITED STATES PATENT OFFICE.

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COLUMN-GUIDE FOR CAR-TRUCKS.

No. 903,490.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES F. MURRAY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Column-Guides for Car-Trucks, of which the following is a specification.

My invention pertains to improvements in railway car trucks, and concerns especially the means for supporting the bolster and maintaining it in place in such a manner that it may be readily and quickly removed from the truck and side-frames.

It has been customary and usual heretofore to remove the bolster from the truck by drawing it lengthwise through the central bolster and spring opening in one of the cast-metal side-frames. Owing, however, to the great depth of the bolsters, frequently used at the present time, at their middle portions, it is not only difficult but in some cases quite impossible to withdraw the bolster in this manner, the hole or aperture in the side-frame having an insufficient vertical dimension to allow the withdrawal of the bolster in the manner indicated. In most railway car truck constructions the bolsters are long enough to extend through the apertures of the side-frames and have guiding lugs or ribs co-acting with the frames to prevent or limit longitudinal shifting of the bolster.

One object of my invention is to modify the usual construction so that even though the bolster is of great depth at its central part, it can nevertheless be pushed outwardly through the aperture of one of the side-frames to release its other end from the opposite side-frame, whereupon its freed end may be lifted out of the truck and the whole bolster shifted lengthwise in the opposite direction to withdraw its other end from the side-frame through which it had previously been temporarily projected, and thus free the bolster entirely from the truck. In my improved construction the bolster has no column guides, its ends resting on castings forming combined spring-caps and column guides.

On the accompanying drawing, forming a part of this specification, I have illustrated a desirable embodiment of my invention, and

throughout the various views like reference characters refer to the same parts.

On this drawing—Figure 1 is a side elevation of a portion of a railway car truck illustrating a desirable embodiment of my invention; Fig. 2 is a perspective view of the end portion of the bolster used in this truck; Fig. 3 is a perspective view of the column guide casting employed in this truck; Fig. 4 is a vertical cross-section through the top part of the truck, the bolster being shown unsectioned; Fig. 5 is a horizontal section on line 5—5 of Fig. 1, the bolster being omitted; and Fig. 6 is a horizontal section on line 6—6 of Fig. 4, the bolster being omitted.

Referring first to Fig. 1 especially, it will be noticed that the car truck has a cast-metal side-frame 45, a central opening 44 being provided in the side-frame for the accommodation of the bolster-supporting springs and the bolster, and in this embodiment of my invention the opening 44 is of uniform width for the entire portion of its vertical length. The car truck has a spring seat 46 on which are superposed a plurality of coil compression springs 47, on the top ends of which is seated a casting 58 forming a combined column guide and spring cap. This casting, as is clearly indicated in the figures, has a substantially flat bottom wall 59 equipped on its lower or under surface with a downwardly-extended curved flange 60 to retain the springs in position. Arising from the opposite ends of this floor or wall 59 are a pair of vertical parallel end walls 61, each having on its outer surface a single guiding rib 64 adapted to co-act with the inner surfaces of the column portions 40 of the side-frame to guide the column guide casting in its up and down movements and to prevent its displacement. The outer edges of these vertical end walls 61 are joined together by an abutment wall 62 integral therewith, it being understood that this bolster support is formed in a single piece, as is clearly illustrated in Fig. 3. At each side of the car truck the bolster 63 is adapted to rest upon the bottom wall or floor 59 of one of these castings, its weight and the load which it sustains being borne by the supporting springs 47. Each end of the bolster co-acts with one of the walls 62 to prevent longitudinal shift-

ing or limit lengthwise movement of the bolster, outward movement of the castings being prevented, as is obvious, by the co-operation of the guiding ribs 64 with the side-frames.

In order to remove the bolster it is merely necessary to jack up the same sufficiently to permit the taking out of the supporting springs 47, whereupon the castings 58 may be lowered enough so that the end abutment walls 62 escape the bolster, at which time each of the castings may be removed from the truck inwardly from the side frame, outward removal being precluded, of course, by the presence of the lugs 64. The bolster may then be withdrawn through the central opening of either of the side frames, or if its depth is too great to permit its withdrawal in this manner it may be shifted longitudinally so as to project one of its ends through one of the side-frames sufficiently to free its other end from the opposite side-frame, whereupon this latter end may be lifted out of the truck and the bolster readily removed, as described above.

Although I have described with some degree of particularity the minor details of construction of this device, I desire to have it understood that my invention is not limited to the precise structural features shown and described, but that it covers a variety of minor mechanical modifications which will be apparent to those skilled in the art.

I claim:

1. In a railway car truck, the combination of a side-frame, one or more springs supported by said frame, a bolster support or spring cap sustained by said spring or springs and having one or more guiding ribs coöperating with one side only of said side-

frame, a bolster resting on said bolster support or spring cap, and means to prevent lengthwise shifting of said bolster on said support, substantially as described.

2. In a railway car truck, the combination of a side-frame, one or more springs supported by said frame, a bolster support sustained by said spring or springs and having one or more guiding ribs coöperating with the inner surface only of the side-frame, a bolster resting on said bolster support, and means to prevent lengthwise shifting of said bolster on said support, substantially as described.

3. In a railway car truck, the combination of a side-frame, one or more springs supported by said frame, a bolster support sustained by said spring or springs, said bolster support having a bottom wall or floor, and end walls arising from said bottom wall or floor and having guiding ribs coöperating with said side-frame, and an abutment wall or web connecting said end walls, and a bolster resting on said bottom wall or floor, said connecting wall or web co-acting with said bolster to prevent longitudinal shifting thereof, substantially as described.

4. As an article of manufacture, a casting adapted to rest on the springs of a car truck side-frame and support a bolster, said casting having guiding ribs to co-act with one side only of the side-frame, and means to co-operate with the bolster of the truck to limit or prevent lengthwise shifting of the bolster, substantially as described.

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Witnesses.

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