No. 826,870. PATENTED JULY 24, 1906.

S. OTIS.

RAILWAY CAR TRUCK.

APPLICATION FILED DEC. 26, 1905.

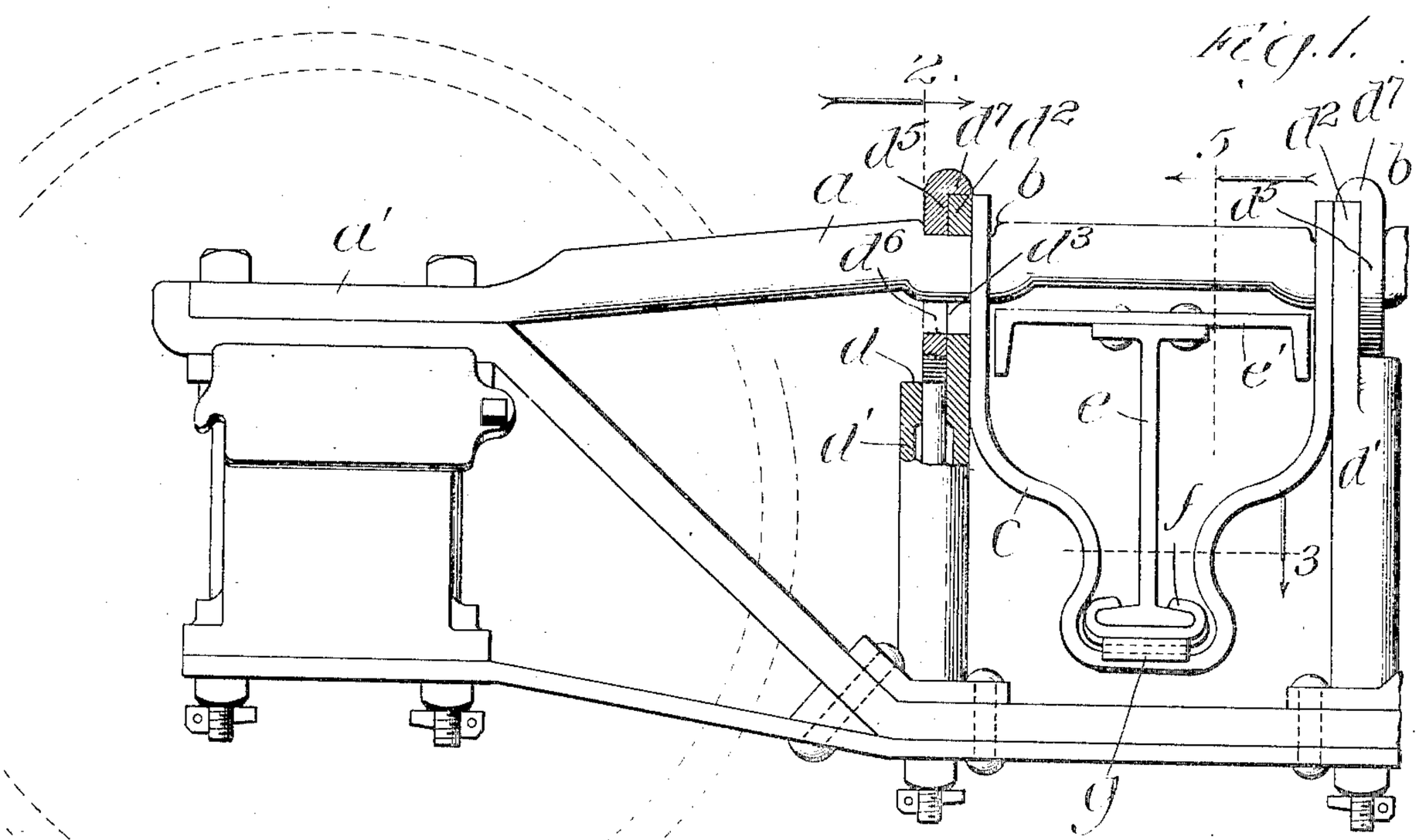


Fig. 2.

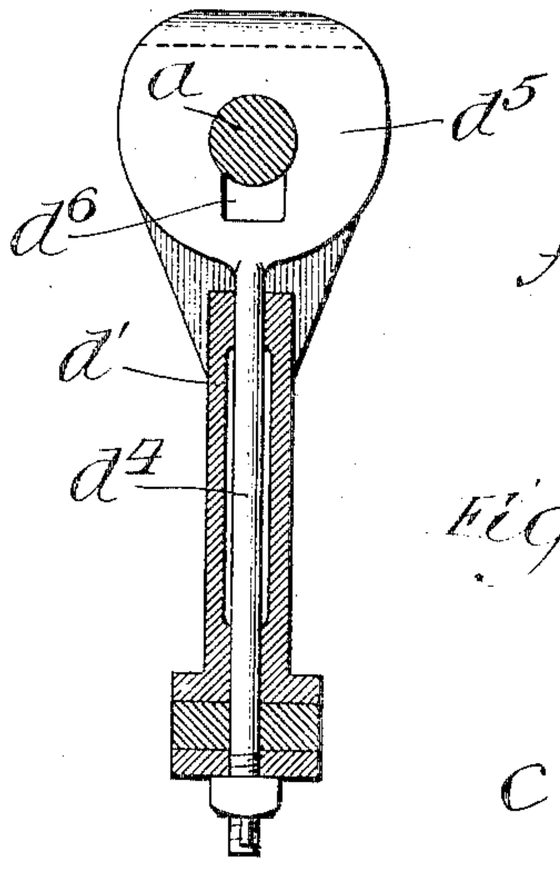


Fig. 3.

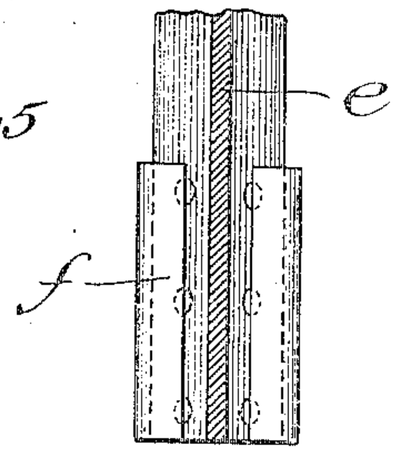


Fig. 4

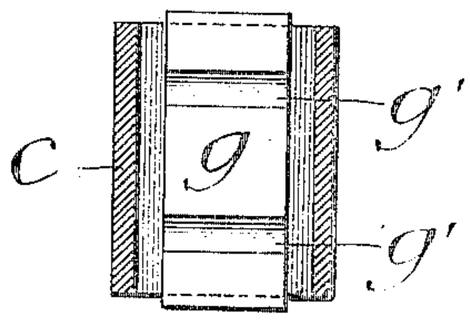
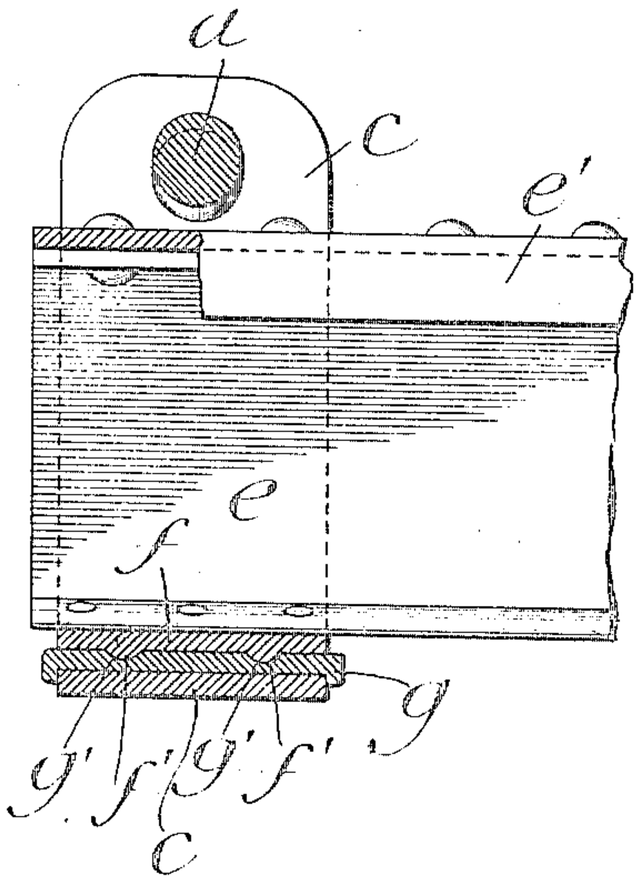


Fig. 5.



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UNITED STATES PATENT OFFICE.

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RAILWAY-CAR TRUCK.

No. 826,870. Specification of Letters Patent. Patented July 24, 1906.

Application filed December 26, 1905. Serial No. 293,376.

To all whom it may concern:

Be it known that I, SPENCER OTIS, 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 Railway-Car Trucks, of which the following is a specification.

My invention relates to railway-car trucks, and has for its object to improve the construction thereof by providing therein a novel spring-hanger and a novel form of column.

Other objects of the invention will appear from the accompanying specification and claims.

In the drawings, Figure 1 is a side elevation, partly in section, of a truck embodying my invention. Fig. 2 is a detail sectional elevation on the line 2 of Fig. 1. Fig. 3 is a transverse section on the line 3 of Fig. 1, certain parts being omitted. Fig. 4 is a detail sectional view. Fig. 5 is an end elevation, partly in section, on the line 5 of Fig. 1.

In the accompanying drawings is shown one end of a truck having the usual upper and lower arch-bars and a tie-bar. The upper arch-bar *a* is made of rounded metal recessed at *b b*, having a flattened end *a'*, secured to the journal-box casing in the usual manner. The recesses *b b* are on each side of the middle point of the arch-bar. Hung in the recesses *b b* of the upper arch-bar is a depending hanger *c*, formed of an integral strip of spring metal bent into U shape with inturned sides, as shown. Supported by this hanger is a bolster comprising a vertical member *e*, formed of an I-beam, and a horizontal member *e'*, formed of a channel member, these members being suitably secured together by rivets or otherwise. Suitably secured to the lower flange of the vertical I-beam member is a clip *f*, provided on its under surface with rounded projections *f'*, which rest in corresponding recesses *g'* of a clip *g*, which rests upon the spring-support *c*, the downturned ends of the clip *g* engaging the sides of the spring-support. Also secured at their upper ends in the depressions in the upper arch-bar are the columns *d*, composed of an outer tubular member *d'*, having an upper flattened vertical extension d^2, recessed at d^3 to provide a passage-way for the upper arch-bar. Within the tubular member is a bolt d^4, also having a flattened upper end provided with a recess or passage-way, and this flattened upper end of the bolt has an overhanging lip d^7, which rests upon the upper end of the flattened portion of the tubular member. The lower end of this bolt member is secured by the usual nuts to the truck-frame. It will be observed that by this construction the weight is carried always at the center of the arch-bar. It will further be seen that as the bolster swings to one side or the other the weight is transferred partially from one of the projections *f'* to the other, and the tendency is for the bolster to return to its central position. By forming the upper arch-bar of rounded metal I am enabled to make a much stronger bar for the same weight of metal, thus greatly strengthening this part of the truck. It will be observed also that the spring forming the hanger is extended when weight is applied thereto and not compressed, as is usually the case in devices of this kind.

It will be understood that the construction is the same on each side of the truck, though I have described the construction on one end only. It will also be understood that I intend to claim such variations from the construction described as may properly fall within the spirit and scope of my invention.

I claim—

1. In a railway-car truck, the combination of an upper arch-bar substantially circular in cross-section and provided with recesses on each side of its middle point, a depending hanger formed of a strip of resilient metal having its upper ends resting in the recesses of the arched bar, and a bolster supported by the hanger.

2. In a railway-car truck, an upper arch-bar, a depending hanger formed of an integral strip of resilient metal hung thereon, and a bolster carried by the hanger.

3. The combination in a railway-car truck having the usual arch-bars of hangers formed of a strip of resilient metal hung from each side of the middle point of the upper arch-bars, and a bolster carried by the hangers.

4. In a railway-car truck, the combination of spring-hangers, clip members resting thereon provided with semicircular recesses and the bolster provided with corresponding clips having rounded projections engaging the recesses of the hanger-clips.

5. In a railway-car truck, a column com-

prising an outer tubular member having a recessed flattened upper extension and an inner bolt member also having a recessed flattened upper extension provided with an overhanging lip engaging the extension portion of the tubular member.

6. In a railway-car truck, a spring-support for the bolster comprising a U-shaped strip of resilient metal having inwardly-bent portions, whereby the weight on the bolster tends to extend the spring.

7. In a railway-car truck, the combination of an upper arch-bar substantially circular in cross-section, a depending hanger formed of a strip of resilient metal having its upper ends engaging the arch-bar, and a bolster supported by the hanger.

SPENCER OTIS.

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