Nov. 16, 1948. H. R. HOWARD 2,453,915

MODEL RAILWAY VEHICLE TRUCK

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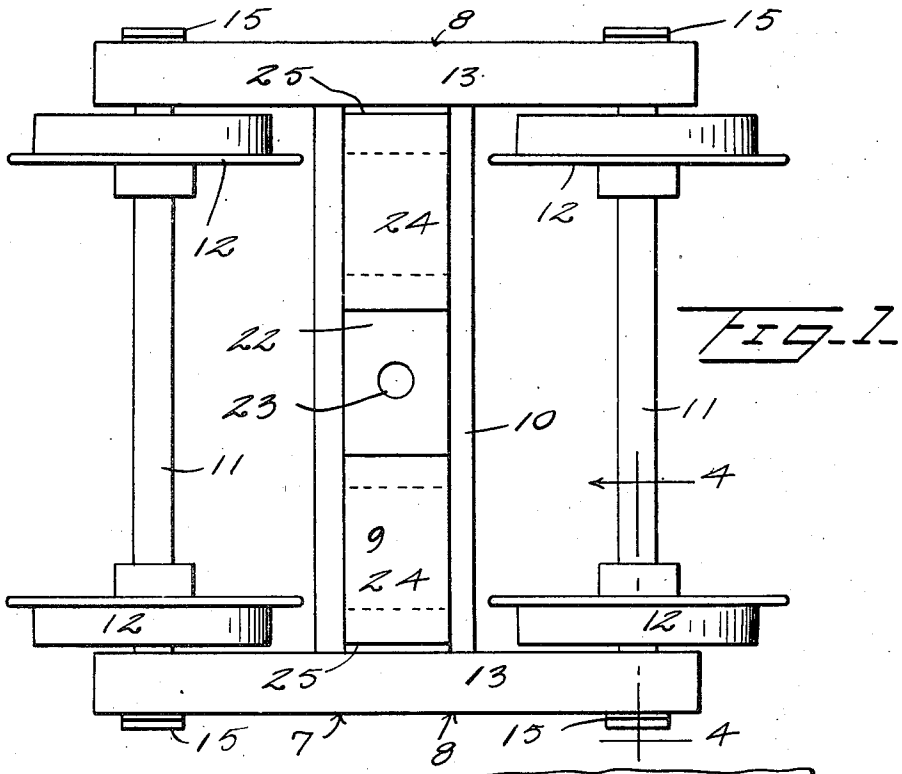


Fig. 1.

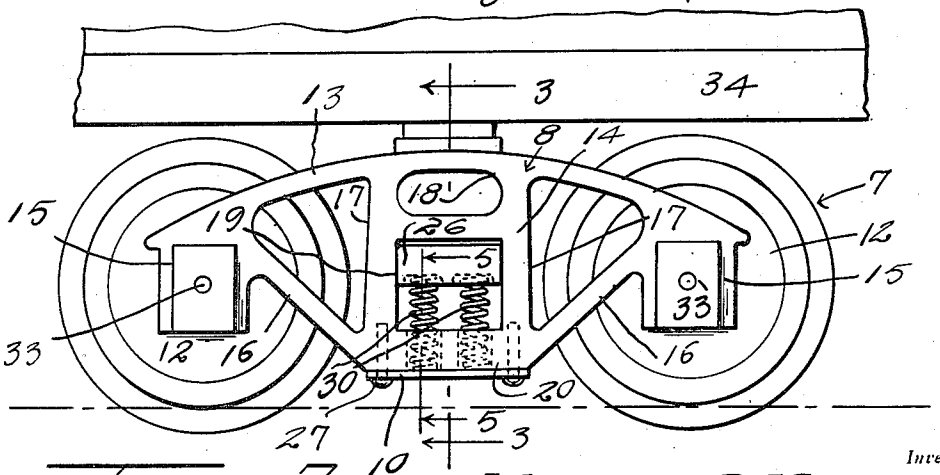


Fig. 2.

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Fig. 3.

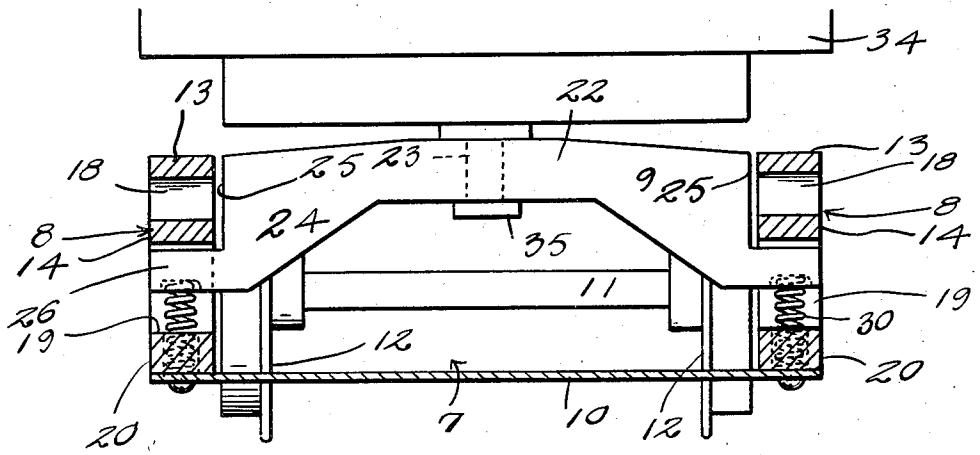


Fig. 4.

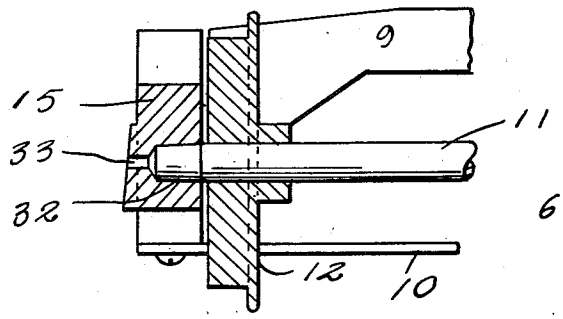


Fig. 5.

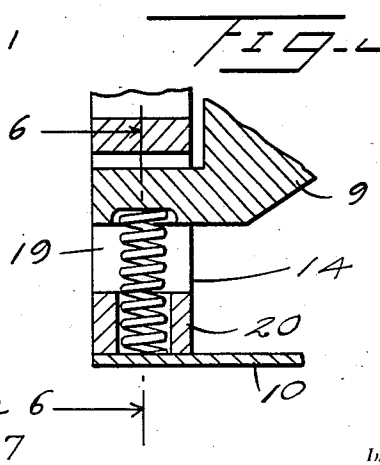
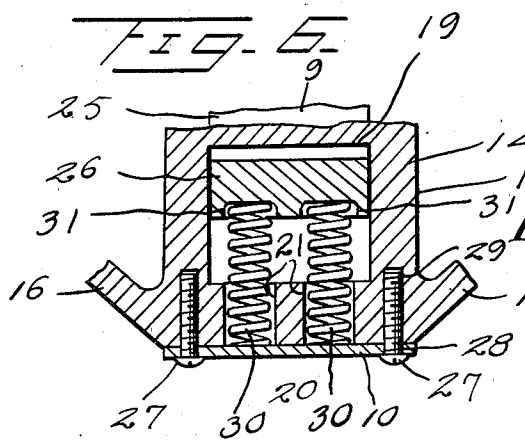


Fig. 6.



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MODEL RAILWAY VEHICLE TRUCK

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2 Claims. (Cl. 105—197)

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This invention relates to a novel construction of truck for use with model railroad rolling stock and is especially intended and adapted for use by model railroaders, who as a hobby, build their own vehicle bodies.

It is a primary object of the present invention to provide a truck for model railway rolling stock of extremely simple construction, which can be inexpensively manufactured and sold and which will be durable and efficient in operation, and which is especially constructed to enable it to be readily applied to custom or hand made vehicle bodies.

Still a further object of the invention is to provide a truck of the above described character which is especially adapted for use with out-of-door model railway equipment, one one-half inch scale size.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawings, which illustrate a preferred embodiment thereof, and wherein:

Figure 1 is a top plan view of the model truck constituting the invention;

Figure 2 is a side elevational view of the same and showing a portion of a vehicle body applied thereto;

Figure 3 is a transverse vertical sectional view taken substantially along a plane as indicated by the line 3—3 of Figure 2;

Figure 4 is a fragmentary vertical sectional view taken substantially along a plane as indicated by the line 4—4 of Figure 1;

Figure 5 is an enlarged fragmentary transverse vertical sectional view taken substantially along a plane as indicated by the line 5—5 of Figure 2, and

Figure 6 is a fragmentary longitudinal sectional view taken substantially along a plane as indicated by the line 6—6 of Figure 5.

Referring more specifically to the drawings, a model railway vehicle truck in its entirety is designated generally 7 and includes corresponding truck sides, each designated generally 8, a bolster 9, a tie plate 10, two axles 11, four wheels 12 and other secondary parts which will hereinafter be described.

The truck sides 8 are preferably formed of cast bronze by pouring rather than die casting and each includes an upper arcuate portion 13 which is upwardly bowed and which is provided, intermediate of its ends, with a depending web portion 14. The arcuate portion 13 is provided with depending journal boxes 15 at the ends thereof

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and said journal boxes and the ends of the arcuate portion 13 are connected to and braced by the lower end of the web 14 by diagonal braces 16 which extend from the lower end of the web 14 to the journal boxes 15 and ends of the upper arcuate portion 13. The parts 13, 14, 15 and 16 are of course cast integrally and combine to form openings 17 in the truck sides 8, which considerably reduce the weight thereof without materially weakening the structure.

The web 14 is provided with an elongated opening 18 in the upper part thereof for the same purpose as the openings 17, and directly therebeneath, each web 14 is provided with a substantially rectangular opening 19 which extends transversely therethrough and which forms a transverse bar or member 20 at the lower end of the web 14. As best seen in Figures 5 and 6, the bar 20 is provided with two perpendicular openings 21 which open outwardly of the lower end of the web 14 and into the opening 19, for a purpose which will hereinafter become apparent.

As best seen in Figure 3, the bolster 9, which is preferably also a bronze casting, is provided with a substantially straight intermediate portion 22 which is provided with a perpendicular opening 23 which is centrally located relatively to the bolster 9 and truck 7. The end portions 24 of the bolster 9 are vertically enlarged in a downward direction and the upper surfaces thereof are inclined outwardly and downwardly slightly with respect to the upper surface of the intermediate portion 22. The end portions 24 are provided with perpendicular end faces 25 and with extensions 26, which project beyond the lower ends of the end faces 25, and which are downwardly offset with respect to the remainder of the bolster 9. The extensions 26 are of a width slightly less than the width of the openings 19, into which they extend, and are of a vertical thickness substantially less than the height of the openings 19, as clearly illustrated in Figures 5 and 6.

The tie plate 10 is disposed beneath the bolster 9 and between the front and rear wheels 12 and the ends thereof engage the undersides of the bars 20 of the webs 14 and are secured thereto by screw fastenings 27 which extend through openings 28 in the tie plate 10 and into threaded recesses 29 of the webs 14. The ends of the tie plate 10 form seats for the lower ends of expansion coil springs 30, the lower portions of which are disposed in the openings 21 and the upper portions of which extend into the openings 19 of the webs 14. The upper ends of the springs 30 seat in recesses 31 in the under sides of the ex-

tensions 26, for yieldably supporting said extensions in the openings 19 and for yieldably mounting the bolster 9 in the truck sides 8, as best illustrated in Figure 3. The tie plate 10 is preferably formed of soft or mild steel of approximately eighteen gauge.

The axles 11 and wheels 12 are preferably of cold rolled steel and the wheels are pressed on the axles and keyed thereto to rotate therewith. The ends of the axles 11, outwardly of the wheels 12 are slightly tapered to fit the journal recesses 32 of the journal boxes 15, which recesses open inwardly and are tapered to corespond to the ends of the axles 11, which are journaled therein. The journal boxes 15 are also each provided with a restricted port 33 which extends from the inner end of its recess 32 through the outer side of the journal box to provide a lubricating port. The wheels 12 are of a conventional flanged type for engagement with a railroad rail.

In Figures 2 and 3, a portion of a vehicle car body is indicated at 34, and in Figure 3, is shown connected to the truck 7 by a king bolt 35 which is detachably mounted and journaled in the bolster opening 23. It will be readily understood that the vehicle body 34 is thus supported adjacent each of its ends by a truck 7.

From the foregoing it will be readily apparent that the truck 7 will yieldably support an end of the vehicle body 34 relatively to the track engaging wheels 12, due to the fact that the extensions 26 of the bolster 9 are mounted for vertical sliding movement in the openings 19 and yieldably supported and urged upwardly therein by the springs 30, and the vehicle body 34 is, in turn, entirely supported on the truck 7 by the resiliently mounted bolster 9. It will be further apparent that the truck 7 is of a durable construction capable of functioning efficiently for its intended purpose and which may be readily disassembled by the simple operation of removing the screws 27 for disengaging the tie rod 10, after which all parts of the truck 7 may be disassembled.

Various modifications and changes are contemplated and may obviously be resorted to without departing from the spirit and scope of the invention as hereinafter defined by the appended claims.

I claim:

1. In a truck for model railway rolling stock, a pair of corresponding side members detachably

connected by a tie bar, the ends of said side members being provided with journal boxes adapted to journal a pair of axles in the transversely aligned journal boxes, a bolster disposed between said side members and having end portions disposed for vertical sliding movement therein, and springs for yieldably supporting the ends of the bolster in the side members and extending downwardly through openings in the bottom portions of the side members, the ends of the tie bar being detachably fastened to said bottom portions of the side members to provide supports for the lower ends of the springs.

2. A truck for model railway rolling stock, comprising a pair of corresponding side members having inwardly opening journal boxes adjacent their ends adapted for journaling the ends of a pair of axles disposed transversely therebetween, said side members having openings intermediate of their ends extending transversely therethrough and being provided with vertical openings communicating with said aforementioned openings and opening outwardly of the bottom edges of the side members, expansion coiled springs disposed in the vertical openings and extending upwardly into the first mentioned transverse openings, a tie bar detachably secured at its ends to the bottom edges of the side members for detachably connecting the side members, the tie bar ends closing the bottoms of the vertical openings for supporting the springs, and a bolster extending between said side member and having its ends disposed for vertical movement in the transverse openings and being yieldably supported therein relatively to the side members by engagement on the upper ends of the springs, said tie bar and bolster combining to detachably retain the springs in said side members.

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