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R. G. SMITH

2,281,393

SELF-UNLOADING TOY VEHICLE

Filed April 20, 1940

Fig. 1.

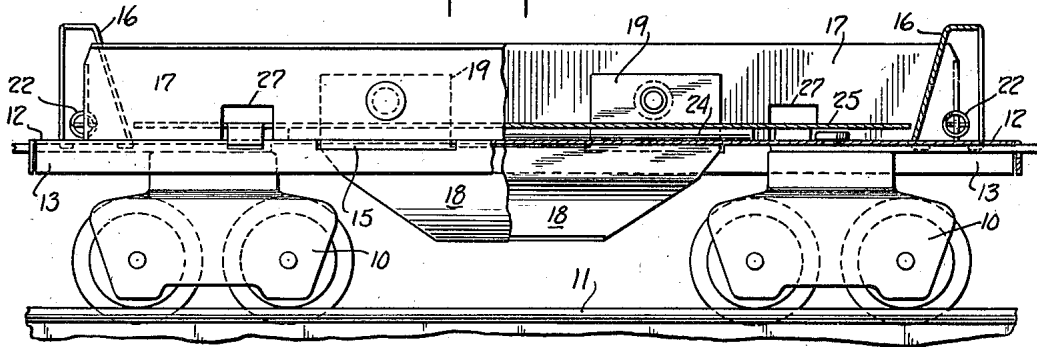


Fig. 2.

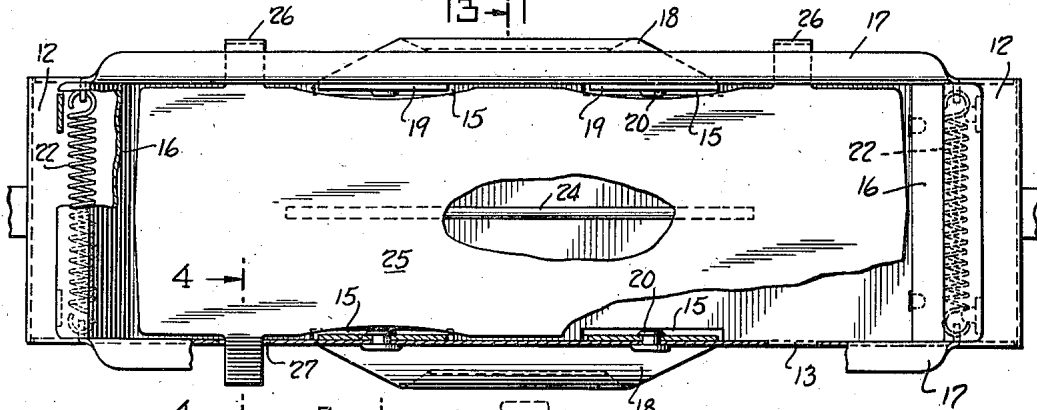


Fig. 3.

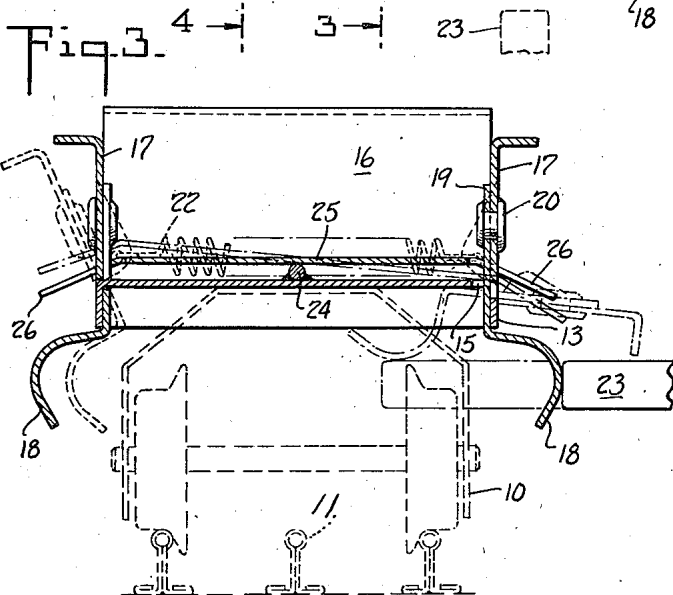
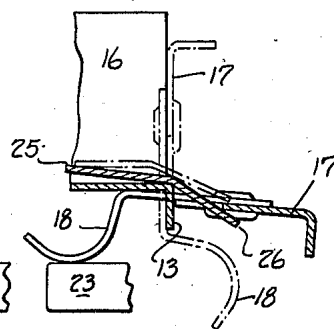


Fig. 4.



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SELF-UNLOADING TOY VEHICLE

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7 Claims. (Cl. 46—214)

The present invention relates to self-unloading toy vehicles, and is more particularly directed toward vehicles having means for discharging the contents of an open hopper or the like laterally.

The present invention contemplates toy freight cars adapted for use on toy railroads and having provisions for swinging one of the sides of the car outwardly so that the contents can roll or move laterally from the hopper of the car.

A further object of the invention is to provide cars of this type with a tiltable bottom which is automatically tilted in the same direction that the side of the car moves in opening so that the rolling of the content of the car toward the open side is facilitated.

Other and further objects will hereinafter appear as the description proceeds.

The accompanying drawing shows, for purposes of illustrating the present invention, one of the many embodiments in which the invention may take form, it being understood that the drawing is illustrative of the invention rather than limiting the same.

In the drawing:

Figure 1 is a side elevational view of a car with parts broken away to show interior construction;

Figure 2 is a top plan view of a car with parts broken away to show interior construction; and

Figures 3 and 4 are cross sectional views on the lines 3—3 and 4—4, respectively, of Figure 2.

The toy freight car may have conventional trucks 10, 10 and operate on conventional track 11. The trucks are secured to a platform 12 having side flanges 13 and 14 formed by bending down the metal as indicated in the drawing. The stamping from which the platform is made is, as here shown, provided with four long openings 15. Near the ends of the platform are fixed end walls 16.

The side walls of the car are indicated at 17, 17 and are here shown alike so that the car can discharge contents to either the right or the left. Where it is desired that the car discharge contents in one direction only one of the walls may be fixed instead of movable as will be described. The side walls 17, 17 are each connected with a downwardly extending sheet metal member 18. This member has two upwardly extending parts 19, 19 which pass through the holes 15 in the platform stamping and are secured by rivets 20 to the corresponding side wall 17. The two elements 17 and 18 thus operate as a unit and may be swung outwardly and downwardly

as indicated in the full line and dot-and-dash line position of Figure 3. During this swinging movement they pivot about the corner of the platform stamping as indicated in dotted lines at the left of Figure 3. The side walls are normally held in the vertical position by two transversely extending springs 22 as indicated. The members 18 may be shifted from the normal vertical position to the lowered position by any suitable means. This is here shown in the form of an external operator 23 which pushes the extension 18 in under the platform of the car.

The platform 12 also carries a centrally located rod or wire 24, and this rod supports a tiltable false bottom piece 25 having prongs 26 which pass through holes 27 in the side walls 17. These prongs are bent downwardly the proper amount so that when the side wall swings back and forth the bottom is tilted as will be apparent from the showings of Figures 3 and 4.

It is obvious that the invention may be embodied in many forms and constructions within the scope of the claims and I wish it to be understood that the particular form shown is but one of the many forms. Various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A toy car having a body provided with a side wall pivoted to swing outwardly and downwardly, spring means acting to hold the side wall vertical, a centrally pivoted, normally horizontal bottom, and means interconnecting the side wall and the bottom so that when the side wall is swung downwardly it causes the bottom to tilt in the same direction.

2. A toy car having a body provided with a side wall pivoted to swing outwardly and downwardly, spring means acting to hold the side wall vertical, a centrally pivoted, normally horizontal bottom having extensions passing through holes in the side wall, the extensions being engageable by the corresponding side wall when it is swung downwardly to tilt the bottom in the same direction.

3. A toy car having a body provided with two side walls pivoted to swing outwardly and downwardly, transversely extending spring means interconnecting the side walls and acting to hold them vertical, a centrally pivoted, normally horizontal bottom, and means interconnecting each side wall and the bottom so that when either side wall is swung downwardly it causes the bottom to tilt in the same direction.

4. A toy car having a body provided with a bottom, a side wall pivoted to swing downwardly and outwardly, and a spring normally holding the side wall vertical, the side wall having a laterally displaced extension below the bottom of the body, and an external, horizontally movable device engageable with the extension for swinging the side wall.

5. A car such as claimed in claim 4, wherein the car has a pivoted false bottom acted on by the side wall to tilt it in the same direction when the side wall is swung down.

6. In a toy car, a body having a fixed bottom, two fixed end walls, side walls at least one of which is outwardly swingable, a centrally pivoted,

tiltable bottom above the fixed bottom, and means to tilt the tiltable bottom toward the swingable side wall in response to the outward swinging of the side wall.

5 7. In a toy car, a body having a fixed bottom, two fixed end walls, two downwardly and outwardly swingable side walls, springs adjacent the end walls for restoring the side walls to vertical position, a centrally pivoted tiltable bottom
10 above the fixed bottom, and means to tilt the tiltable bottom toward the swingable side wall in response to the outward swinging of the side wall.

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