Nov. 18, 1941. R. G. SMITH 2,263,401

TOY

Filed April 20, 1940

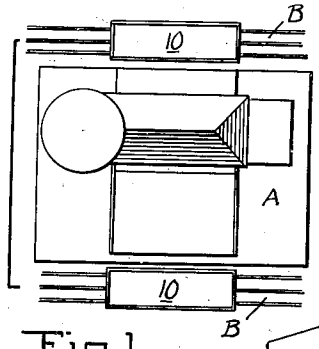


Fig. 1.

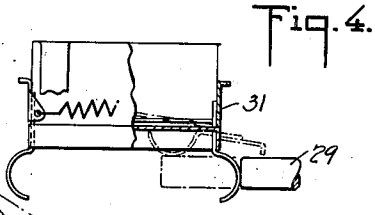


Fig. 4.

Fig. 2.

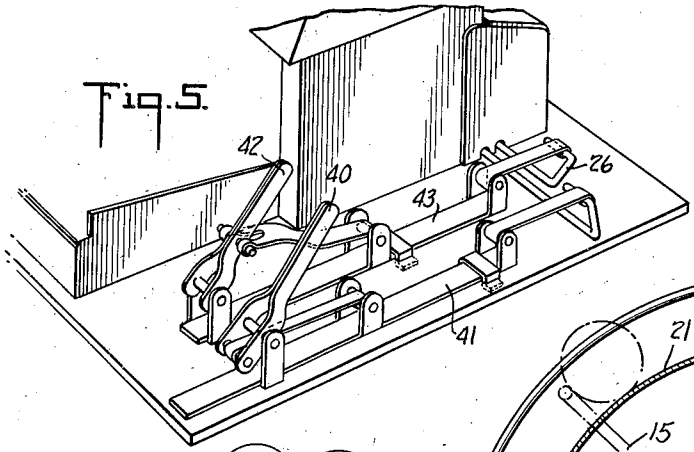


Fig. 5.

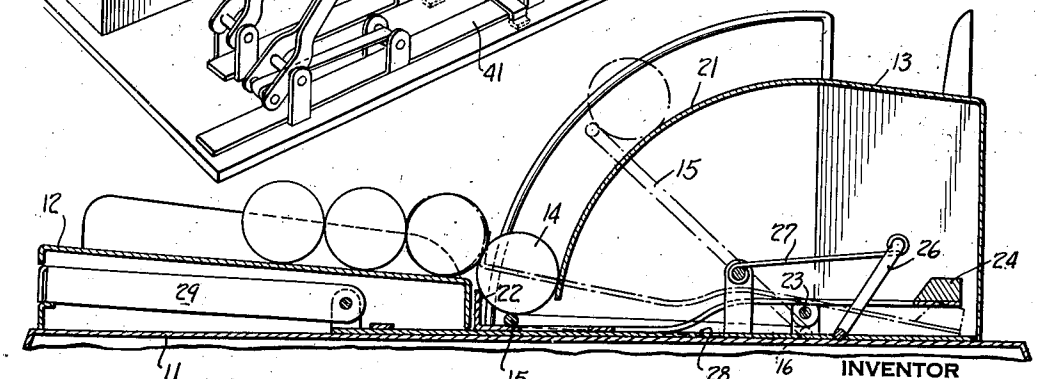


Fig. 3.

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Application April 20, 1940, Serial No. 330,674

2 Claims. (Cl. 214—40)

The present invention relates to toys, and is more particularly related to toys adapted for the use in either loading toy cars, or unloading toy cars, or for both purposes.

The present invention contemplates a device adapted to receive a load, such as logs, barrels, or other round objects carried by a toy car, to store the same and to thereafter transfer them on to the same or another toy car. The device may be conveniently made up in the form of a station past which the train of empty and loaded cars may be passed. The cars may be automatically loaded and unloaded on opposite sides of the station by devices carried by the station or by suitable remote control devices.

According to the present invention the objects to be loaded on to the empty car are stored on a sloping platform down which they may roll and suitable means is provided for elevating the round objects to bring them above the top of the empty car so that they may pass down over a sloping platform and be discharged into the empty car.

Other and further objects will 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, together with modifications of certain parts, it being understood that the drawing is illustrative of the invention rather than limiting the same.

In the drawing:

Figure 1 is a diagrammatic top plan view of a toy railroad track and station with cars on opposite sides of the station;

Figure 2 is a perspective view of the station with parts broken away to show interior construction;

Figure 3 is a vertical sectional view on the line 3—3 of Figure 2;

Figure 4 is a fragmentary end view of a toy car with parts in section; and

Figure 5 is a perspective view illustrating a modified form of construction.

In Figure 1 a toy station is indicated at A, and two railroad tracks at B, B which may form part of a continuous track layout. The width of the station is such that the cars such as 10, 10 may pass close by the opposite sides of the station.

The station A, as shown in detail in Figures 2 and 3, has a base 11 and carries at the left a downwardly sloping platform 12 at a low level, and has a downwardly sloping platform 13 at a higher level on the right hand side. Logs, barrels or other objects deposited on the platform 12 will roll down, as indicated in the drawings, and the lowermost object will drop, as indicated at 14, where it will rest on a bail-like wire member 15 pivoted at 16. This bail-like member is adapted to swing through an angle of approximately 90° as will be obvious. As shown in Figure 2 it is operated by a solenoid coil 18 under the control of a suitable circuit closer 19. When the coil 18 is energized the armature 20 is moved to the right and the bail-like member swung in a clockwise direction. It lifts the log, barrel or other round object 14 up around an incline 21 to carry it up to the top of the platform 13 where it may roll down into the car 10, shown at the top of Figure 1.

When the bail-like member 15 moves upwardly from its lowermost position a checking device 22 pivoted at 23 is lifted up by a weight 24 to the dot-and-dash line position of Figure 3, so that it stops other logs or barrels or similar objects from rolling down off the platform 12. When the solenoid 18 is deenergized the bail-like member drops back to the position shown in full lines and depresses the check device so that another object may roll off the platform.

A second solenoid 25 is carried by the base 11 and it acts on a rocking shaft 26 and connecting piece 27 to shift a slider 28 to the left. This slider actuates a plunger 29 under the platform 12 and this plunger may be used to unload the car 10 at the lower side of Figure 1. When the solenoid is deenergized a spring 30 returns the parts to the position shown. This car is indicated in Figure 4 and has a movable side wall 31 adapted to be swung down by the plunger 29 so that the logs or other round objects may be discharged from the car on to the platform 12. This car is shown in detail in my copending application executed and filed concurrently herewith, Serial No. 330,675, filed April 20, 1940. It will be understood that so far as the loading function is concerned the device operates the same way irrespective of how the objects are placed on the platform 12, assuming, however, that they are placed so that they will roll down the platform.

In the arrangement shown in Figure 5 the lifting of the bail-like member is accomplished by a hand lever 40 operating a slider 41 as will be obvious from the drawing. The unloading plunger 29 is operated by a similar hand operated lever 42 and slider 43.

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 outfit comprising a track over which toy trains may be operated, a toy train on the track including a toy freight car open at the top, and having means for discharging round objects laterally, a station past which the train may be operated, the station having a receiving platform adapted to receive the round objects discharged from the car and store the same side by side, a lifter by which the objects may be carried up in sequence to a higher level and discharged, and a second discharge platform over which the objects roll toward another similar car for discharge into the same.

2. A toy outfit comprising a track over which toy trains may be operated, a toy train on the track including a toy freight car open at the top, and having means for discharging round objects laterally, a station past which the train may be operated, the station having a receiving platform adapted to receive the round objects discharged from the car and store the same side by side, a lifter by which the objects may be carried up in sequence to a higher level and discharged, a second discharge platform over which the objects roll toward another similar car for discharge into the same, and station carried means for operating the lifter.

RICHARD G. SMITH.