

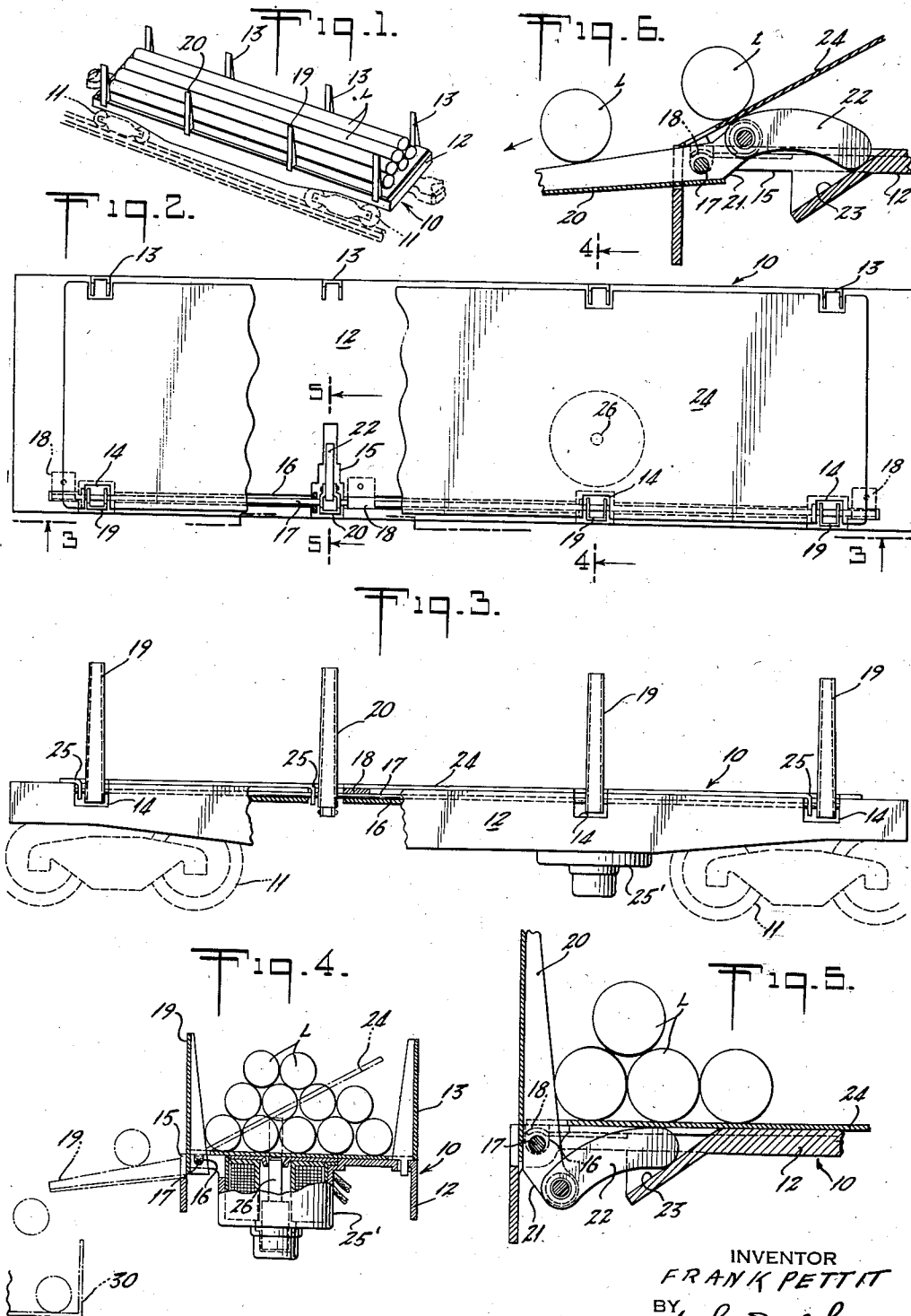
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TOY FLATCAR

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TOY FLATCAR

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The present invention relates to toy cars and is more particularly directed toward toy cars arranged for side dumping of logs and the like.

The present invention relates to improvements in the dumping mechanism whereby shiftable stakes on one side of a toy log car or the like, may be either locked in erect position by the load carried on the car floor, in the form of a tiltable platform, or may be released so as to swing outwardly when the floor which supports the logs is tilted to raise the logs.

According to the present invention the tiltable platform carried on top of the body of a toy flat car and the stakes are pivoted along one side of the car, electromagnetic means is provided for tilting the platform and releasing the shiftable stakes, and the fixed parts of the car and the platform are arranged so that the load on the car locks the stakes in erect position.

The accompanying drawings show, for purposes of illustrating the present invention, an embodiment in which the invention may take form, it being understood that the drawings are illustrative of the invention rather than limiting the same.

In these drawings:

Figure 1 is a perspective view of a toy log car showing it loaded;

Figure 2 is a top plan view of the log car with the parts in normal position, the parts being broken away to show interior construction;

Figure 3 is a side view of the car of Figure 2 with parts in section along the line 3—3 of Figure 2;

Figure 4 is a transverse sectional view through the line 4—4 of Figure 2, the parts being shown in full lines in normal position and in dot and dash lines in dumping position;

Figure 5 is a view along the line 5—5 of Figure 2 taken at an enlarged scale and showing the parts in normal position;

Figure 6 is a view similar to Figure 5 showing the parts in dumping position.

The car 10 has conventional trucks 11 and a die cast body 12 shaped to simulate a flat car. Fixed stakes 13 are permanently secured to one side of the car body. The other side of the car body has in the form shown, three small notches 14 and one deep notch 15. The upper face of the car body has a longitudinally extending groove 16 which receives a hinge rod 17. The rod is held in place by small clips 18 riveted to the car body. Three stakes 19 are secured to the rod 17 so as to move in unison. These stakes are in the notches 14. A fourth stake 20 is similarly

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secured to the rod 17 opposite the deep notch 15. This stake has a downwardly extending end 21 to which is pivoted a cam member 22. Toward the center of the car body the notch 15 has an upwardly and inwardly sloping cam surface 23 on which the end of cam member 22 rests.

A tiltable platform 24 is provided with downwardly bent ears 25, 25 by which the tiltable platform is pivotally secured to the rod 17. This platform normally rests on top of the car body as shown in Figures 2, 3, 4 and 5, but can be swung upwardly to the full line position of Figure 6 or the dotted line position of Figure 4 by means of an electromagnet shown at 25'. This magnet has an armature 26 engageable with the bottom of the platform 24 to lift it.

When the car is empty or is loaded, the platform 24 rests on top of the car body 12, and the cam member 22 is, as indicated in Figure 5, between the platform and the surface 23 of the car body. This insures the erect position of the shiftable stakes 19 and 20. When the magnet coil is energized it lifts the tiltable platform 24, and as this platform moves up away from the upper surface of the cam member 22 it no longer interferes with the swinging of the stakes. The lateral shiftable load on the tiltable platform tends to slide or roll off the platform applying pressure to the stakes to swing them from the upright position to the dumping position. Where toy logs are used as indicated at L in the drawings, such logs roll off the platform down the stakes so as to be received in a receptacle 30. As soon as the coil is de-energized the platform drops and the stakes are shifted back to the vertical position.

Since it is obvious that the invention may be embodied in other forms and constructions within the scope of the claims, I wish it to be understood that the particular form shown is but one of these forms, and 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 car body, fixed stakes along one side of the car body, swingable stakes and a concentrically pivoted, tiltable platform pivotally secured along the other side of the car body, the platform normally resting by gravity on top of the car body, means including linkage connected with the swingable stakes and engaged with the platform and body when the platform is in normal position for holding the swingable stakes in raised position, and electromagnetic means for raising the platform to re-

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lease the swingable stakes so that a load in the platform laterally shiftable on tilting of the platform will effect swinging of the swingable stakes.

2. In a side dumping toy car, a fixed body, swingable stakes and a tiltable platform pivotally secured to one side of the body, one of the stakes having a depending arm, a cam member secured to the arm and extending under the tiltable platform, and an inclined surface on the body engageable with the cam member to hold the stakes erect when the platform is down.

3. A toy car having a fixed body, a solenoid carried by the body and having a gravity returned plunger movable upwardly upon energization of the solenoid, a rod extending along one side of the car body, stakes secured to the rod and swingable in unison from a vertical position to a downwardly and outwardly sloping position, a platform pivoted to the rod and normally resting on top of the car body, a stake-operated cam member extending between the platform and body when the stakes are up so as to retain the stakes in the up position due to the weight of the platform.

4. A toy car as claimed in claim 3, wherein the car body has an inclined surface to lift the cam member when the stakes swing outwardly.

5. A toy adapted to discharge toy logs from the side comprising a car body pivotally carrying a hinge rod adjacent one edge of the body, the body having spaced notches along said edge one of which is deeper than the other and having an upward and inwardly sloping camming sur-

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face, the rod crossing the notches, stakes secured to the rod and movable in said notches, the stake opposite the longer notch having an arm, a cam member carried by the arm and resting on the camming surface, a platform pivoted to the rod and resting on top of the car body when the stakes are up and preventing the stakes from swinging down, and an electromagnetic device for lifting the platform to release the stakes.

6. In a toy dump car, a body pivotally carrying a hinge rod adjacent an edge of the body, a tiltable platform hinged to the rod and resting by gravity on top of the car body, a plurality of normally upright stakes secured to the rod to move in unison, one stake having an extension below the pivot, and a cam member pivotally secured to the extension, the body having a sloping portion opposite the extension on which the cam member rests, the upper surface of the cam member engaging the lower surface of the platform to prevent swinging of the stakes when the platform rests on the car body.

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