Nov. 18, 1958 J. B. DUBITSKY 2,860,799

TOY

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FIG. 1

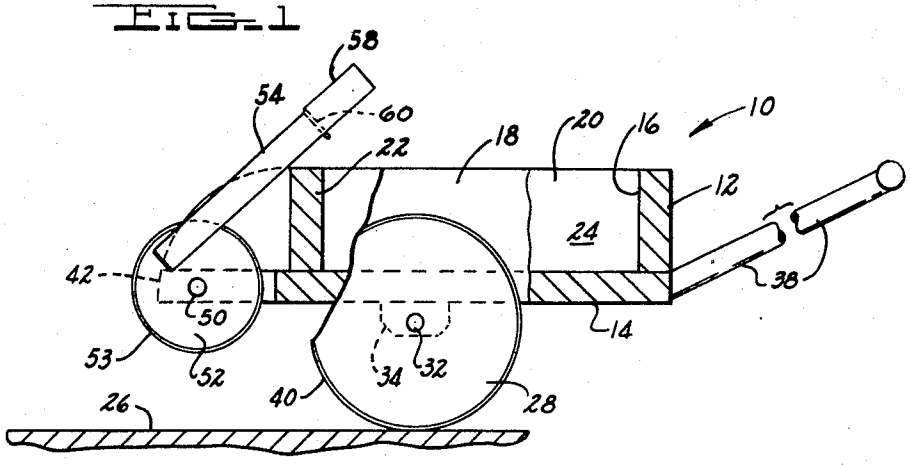


FIG. 2

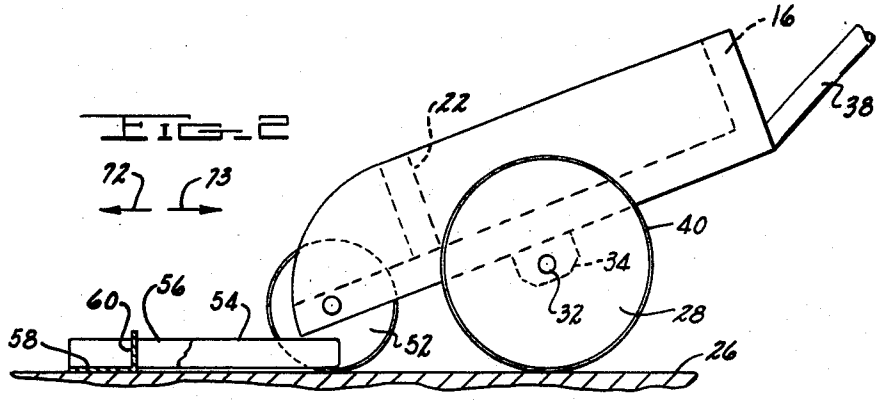


FIG. 3

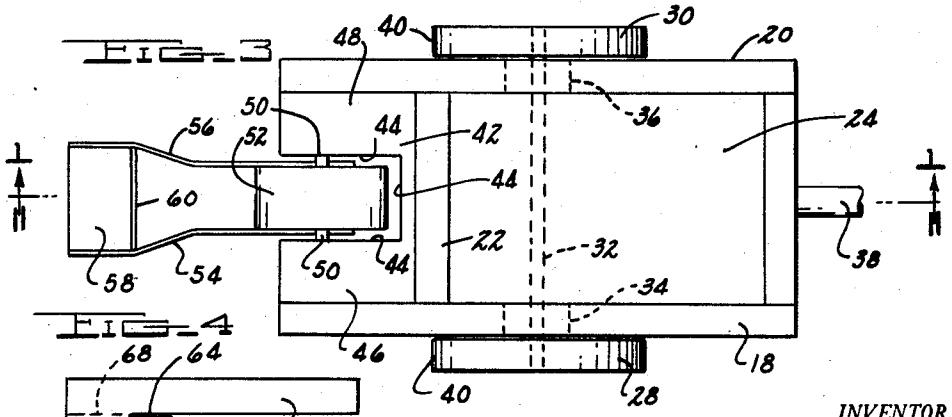
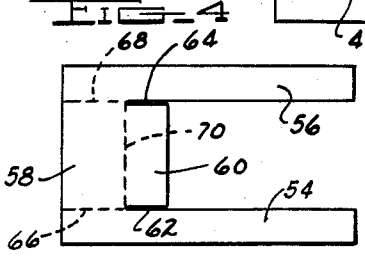


FIG. 4



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3 Claims. (Cl. 214—358)

This invention relates to a toy vehicle having a body structure which is adapted to contain sand, dirt or similar granular material, together with a scoop structure which can be automatically actuated by movement of the vehicle to load the granular material into the body structure.

Objects of the invention are to provide a toy of the above type, wherein:

(1) The action of the toy is such as to require a certain degree of skill or dexterity on the part of the child operating the toy, thereby teaching him to coordinate his physical and mental activities, and enabling him to achieve a sense of satisfaction and accomplishment,

(2) The toy is of relatively simple, low cost construction, capable of manufacture without expensive dies or molding equipment.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

In the drawings:

Fig. 1 is a side elevational view of one embodiment of the invention, with parts broken away along line 1—1 in Fig. 3,

Fig. 2 is a view similar to Fig. 1, but with a "scoop" structure in lowered position for loading granular material,

Fig. 3 is a top plan view of the Fig. 1 embodiment,

Fig. 4 is a plan view of a "blank" structure employed in the Fig. 1 embodiment.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

In the drawings there is shown a toy vehicle **10** comprising a wooden vehicle body **12**. Body **12** includes a floor board **14**, front wall **16**, side walls **18** and **20**, and back wall **22**, which cooperate with each other to form a recess **24** for carrying sand, dirt or similar granular material.

Vehicle body **12** is supported for horizontal movement over ground surface **26** by means of two wooden wheels **28** and **30**, which are connected together by an axle **32** rotatably journaled in blocks **34** and **36** attached to the underside of floor board **14**. An elongated wooden rod **38** (about fifteen inches in length) extends upwardly and forwardly from body **12** to form a handle structure which may be grasped by the child to propel the toy vehicle forwardly and rearwardly. Wheels **28** and **30** are provided with flat rubber rings **40** for increased traction on the ground surface.

Floor board **14** extends rearwardly beyond wall portion **42** which is rectangularly cut away at **44** to form two spaced extensions **46** and **48**. A shaft **50** is positioned between these extensions and carries a ground-engaging roller **52**. In the Fig. 1 "non-tilted" position of body **12** roller **52** is spaced above ground surface **26**, but when body **12** is moved to the Fig. 2 "tilted" position roller **52** is put into tractive engagement with the ground surface. Roller **52** is provided with a tightly fitting rubber sleeve **53** for increased traction with surface **26**.

The side surfaces of roller **52** have fixedly secured thereto two spaced metal arms **54** and **56** which are interconnected together at their outer ends by means of two angularly related walls **58** and **60**. Arms **54** and **56** cooperate with walls **58** and **60** to form a "scoop" structure for loading the granular material into vehicle recess **24**. Walls **58** and **60** form the "shovel" portion of the scoop structure.

The entire scoop structure may be conveniently formed from a single flat sheet of metal of the shape shown in Fig. 4. In the steps of formation the sheet is cut along lines **62** and **64**, after which arm sections **54** and **56** are bent upwardly from the plane of wall **58** along lines **66** and **68**. Wall **60** is bent upwardly from the plane of wall **58** around line **70** to complete the scoop structure.

In operation of vehicle **10** the child may move the vehicle back and forth in the Fig. 1 position in the manner of a conventional trundle toy. When the child desires to load granular material into recess **24** he lifts handle structure **38** so as to tilt the vehicle body into the Fig. 2 position wherein roller **52** is in tractive engagement with the ground surface. Thereafter, a manual push on the handle is effective to move the vehicle in the arrow **72** direction so as to drive roller **52** counterclockwise (via its tractive engagement with surface **26**) in such manner as to pivot the scoop structure from the Fig. 1 "overturned" position to the Fig. 2 lowered position. Continued movement of the vehicle in the arrow **72** direction causes shovel portions **58**, **60** to move into a pile of granular material (not shown) so as to "load up" the scoop. Reverse movement of the vehicle (in the arrow **73** direction) causes roller **52** to rotate clockwise in such manner as to move the scoop structure back to the Fig. 1 position of "overturnment" above recess **24**. The granular material is thereby allowed to be gravitationally loaded into the vehicle.

It will be noted that the roller **52** and scoop mechanism **54**—**60** are of simple low cost construction, susceptible of manufacture without expensive dies or molding equipment. As a result the scoop mechanism can be incorporated into an otherwise conventional toy vehicle without materially increasing overall costs.

I claim:

1. A toy comprising a vehicle body including a floor; a front wall, two side walls and a back wall extending upwardly from said floor to define therewith a recess for carrying granular material; a pair of axially aligned gound-engaging wheels supporting said vehicle body for horizontal movement while permitting said body to be tilted around the wheel axis; a handle projecting upwardly from the front end of the vehicle body for permitting manual movement of the vehicle; said vehicle including two spaced extensions projecting rearwardly from the back wall; a ground-engaging member rotatably mounted between said extensions and having an arcuate ground-engaging surface; said ground-engaging member having its ground-engaging surface spaced from the lowermost point on the wheels when the vehicle is in a non-tilted position; a pair of spaced parallel arms extending from said ground-engaging member in directions at right angles to the wheel axis; the free ends of said arms being connected by two angularly related wall elements, said wall elements forming a shovel structure for

carrying granular material; whereby the handle may be grasped to tilt the vehicle body so as to put the ground-engaging member into contact with the ground surface, after which the vehicle body can be moved along the ground with the aforementioned arcuate ground-engaging surface being frictionally driven by its contact with the ground surface so as to move the shovel structure between a position on the ground and a position of overturnment above the vehicle body recess.

2. A toy comprising a vehicle body including a floor; a front wall, two side walls and a back wall extending upwardly from said floor to define therewith a recess for carrying granular material; a pair of axially aligned gound-engaging wheels supporting said vehicle body for horizontal movement while permitting said body to be tilted around the wheel axis; said vehicle including two spaced extensions projecting rearwardly from the back wall; a ground-engaging member rotatably mounted between said extensions and having an arcuate ground-engaging surface; said ground-engaging member having its ground-engaging surface spaced from the lowermost point on the wheels when the vehicle is in a non-tilted position; a pair of spaced parallel arms extending from said ground-engaging member in directions at right angles to the wheel axis; a shovel structure carried on the free ends of said arms; whereby the vehicle body may be tilted so as to put the ground-engaging member into contact with the ground surface, after which the vehicle body can be moved forwardly along the ground with the aforementioned arcuate ground-engaging surface being frictionally driven by its contact with the ground surface so as to move the shovel structure between a position on the ground and a position of overturnment above the vehicle body recess.

3. A toy comprising a vehicle body including a floor; a front wall, two side walls and a back wall extending upwardly from said floor to define therewith a recess for carrying granular material; a pair of axially aligned ground-engaging wheels supporting said vehicle body for horizontal movement while permitting said body to be tilted around the wheel axis; said vehicle including two spaced extensions projecting rearwardly from the back wall; a ground-engaging member rotatably mounted between said extensions and having an arcuate ground-engaging surface; said ground-engaging member having its ground-engaging surface spaced from the lowermost point on the wheels when the vehicle is in a non-tilted position; an arm structure extending from said ground-engaging member in directions at right angles to the wheel axis; and a shovel structure carried by said arm structure; whereby the vehicle body may be tilted so as to put the ground-engaging member into contact with the ground surface, after which the vehicle body can be moved forwardly along the ground with the aforementioned arcuate ground-engaging surface being frictionally driven by its contact with the ground surface so as to move the shovel structure between a position on the ground and a position of overturnment above the vehicle body recess.

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