Sept. 26, 1967 G. C. KELLY 3,343,299

MAGNETIC TOY SIMULATING URBAN OPERATIONS

Filed Oct. 29, 1964 2 Sheets-Sheet 1

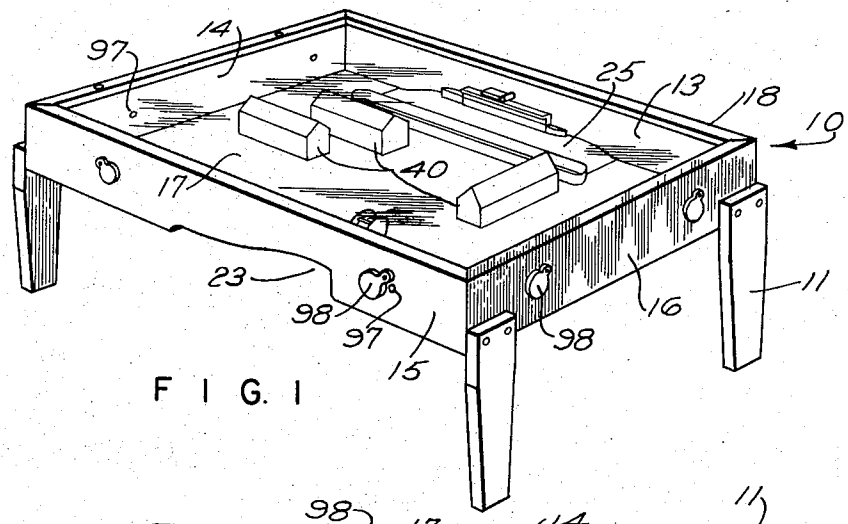


FIG. 1

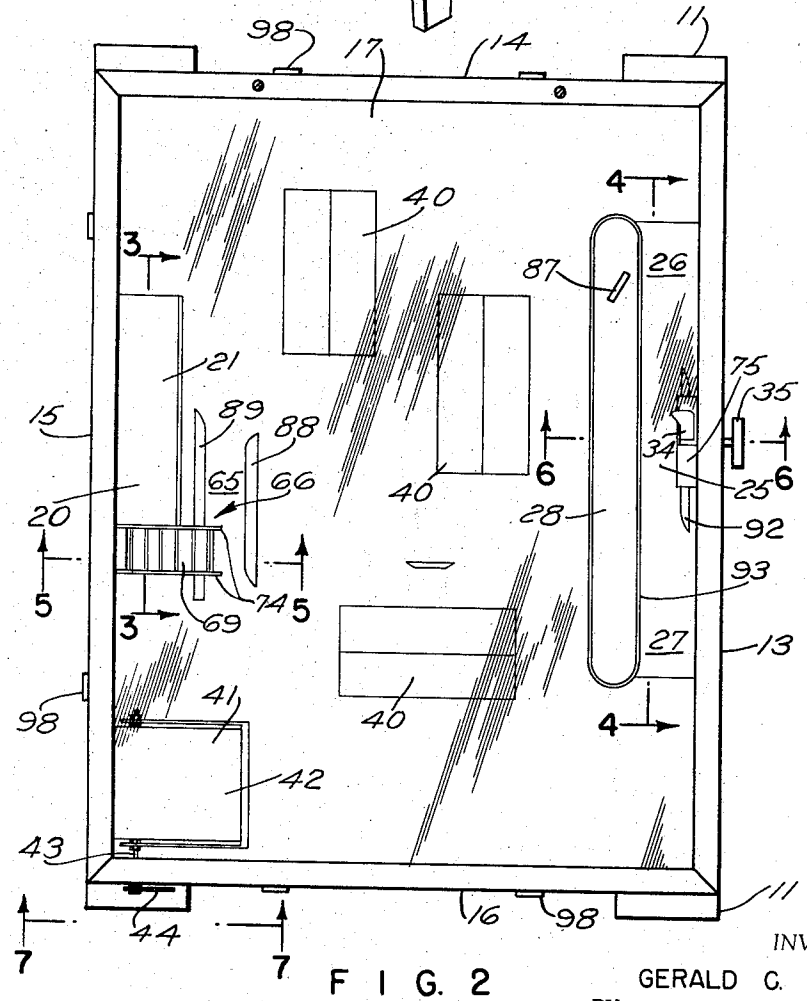


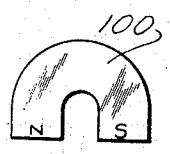
FIG. 2

INVENTOR.
GERALD C. KELLY
BY
Barlow & Barlow
ATTORNEYS

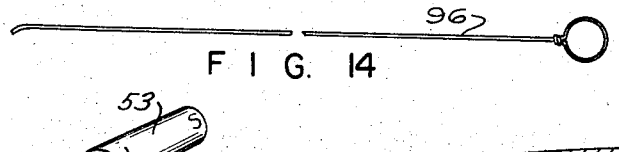
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MAGNETIC TOY SIMULATING URBAN OPERATIONS

Filed Oct. 29, 1964 2 Sheets-Sheet 2

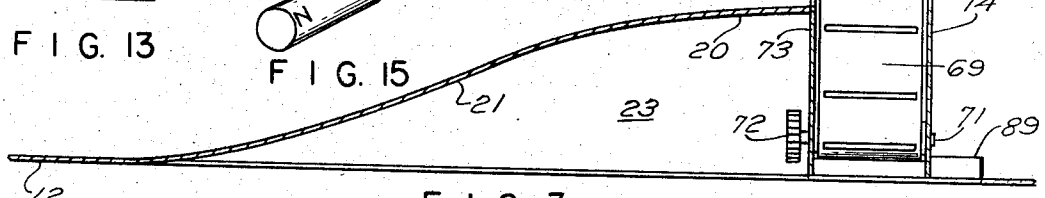


F I G. 13

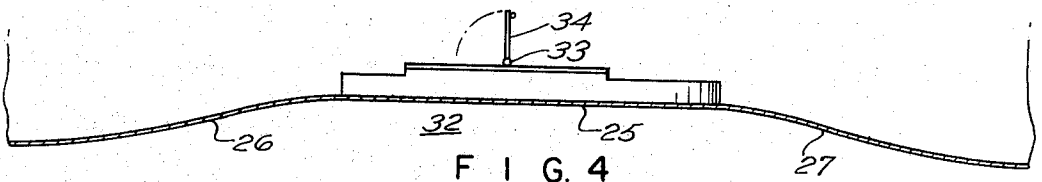


F I G. 14

F I G. 15



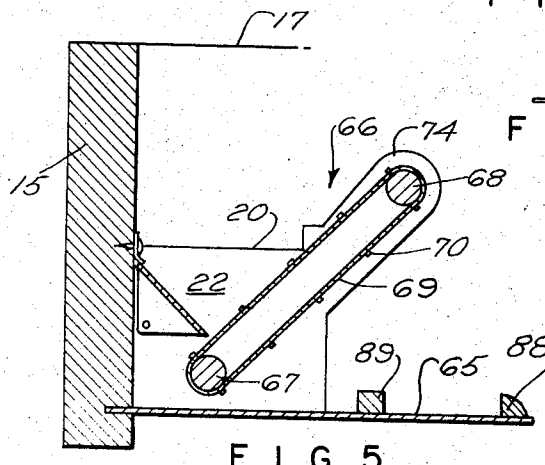
F I G. 3



F I G. 4

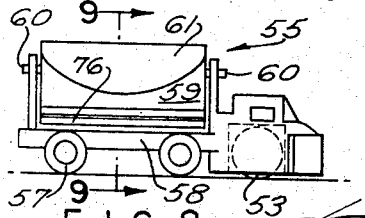


F I G. 12

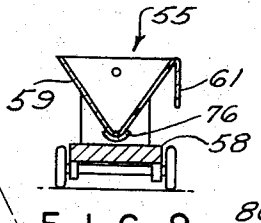


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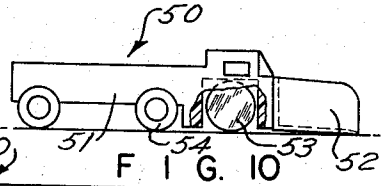
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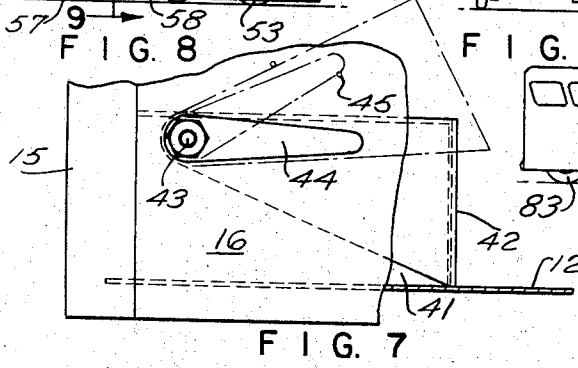
F I G. 8



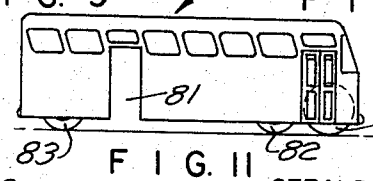
F I G. 9



F I G. 10



F I G. 7



F I G. 11

INVENTOR.
GERALD C. KELLY
BY
Barlow & Barlow
ATTORNEYS

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3,343,299

MAGNETIC TOY SIMULATING URBAN OPERATIONS

Gerald C. Kelly, 28 Abbott Ave., Warwick, R.I. 02886

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8 Claims. (Cl. 46—240)

This invention relates to a toy or amusement device for a child and involves the manipulation of vehicles for doing work such as is encountered after a snowfall.

Toys involving the use of imitation snow or the like are often objectionable because the imitation snow may be scattered about the home on a rug and be difficult to recover for further use and is messy when out of its proper place.

One of the objects of this invention is to provide, enclosed in a container so that the same cannot escape, the part that is to imitate snow or the like.

More specifically, an object of the invention is to provide inclined ramps for elevating the manipulated vehicles within the container to heights above the bottom wall with corresponding advantages which may be obtained by this elevation in the doing of the work desired.

A further more specific object is that of providing a magnetic member within the vehicle which is manipulated by means of which the vehicle may be more accurately directed in its manipulation over the bottom wall, this means taking the form of a cylindrical member with north and south poles.

Another object of this invention is to provide an arrangement so that one magnetic part which may be an imitation man may be contained within an imitation vehicle in such a way that the man may be placed within the vehicle or removed therefrom by magnetic means, and when placed within the vehicle will be manipulated with the vehicle as if riding in the vehicle.

Another object of the invention is to provide an arrangement so that through magnetic manipulation the non-magnetic material which represents snow may be spread about an area such as a bin rather than requiring that the dumping vehicle be located at different locations to fill the bin.

With the above objects in view, the toy or amusement device has the further objects of being so built that the parts within the container are all manipulatable from outside of the container by certain means such as by magnetism for propelling the objects or articles within the container, and where magnetism cannot be utilized for the desired manipulation, I have provided some means which project through the side wall of the container and is mechanically manipulatable from without the container so that the contens of the container may remain closed and the imitation snow cannot escape therefrom.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and particularly pointed out in the appended claims.

In the acompanying drawings:

FIG. 1 is a perspective view of the toy or amusement device as supported upon legs so that access may be had to the undersurface of the unit;

FIG. 2 is a top plan view on a larger scale with the cover removed looking into the interior of the unit;

FIG. 3 is a section on line 3—3 of FIG. 2;

FIG. 4 is a section on line 4—4 of FIG. 2;

FIG. 5 is a section on line 5—5 of FIG. 2;

FIG. 6 is a section on line 6—6 of FIG. 2;

FIG. 7 is a view substantially on line 7—7 of FIG. 2;

FIG. 8 is an elevation of a magnetic imitation dump truck;

FIG. 9 is a section through this truck on substantially line 9—9 of FIG. 8;

FIG. 10 is an elevation of an imitation truck with a scoop or pick-up scoop on the front end thereof with a portion broken away;

FIG. 11 is an elevation of an imitation bus;

FIG. 12 is an elevation of an imitation man;

FIG. 13 is an elevation of a magnet used;

FIG. 14 is a plan view of the righting rod used; and

FIG. 15 is a perspective view of the cylindrical magnetic member utilized in some of the vehicles.

In proceeding with this invention, I provide in the form of a moldable container a portion of a village or settlement containing buildings and streets from which snow is to be removed. The snow is in the form of some finely divided material such as rice which is scattered by shaking the container about the bottom wall of the container and thus over the roads and sidewalks of the village which the container represents. I have also provided in this container by molding the bottom wall or shaping a non-magnetic metal wall so as to provide platforms and ramps for handling the imitation snow, and for this handling of the snow, plows, dump truck and other vehicles are utilized for performing the useful work of removing the snow from the streets. In order to propel the plow or pick up with the scoop of the truck and other vehicles, a steel cylinder is located in each of these vehicles and a magnet may be used beneath the bottom wall of the container so as to move these vehicles about to do the work desired. Suitable mechanical means are also provided for additional manipulation as desired to do this useful work.

With reference to the drawings, the container of this invention is designated generally **10** which is supported on legs **11** mounted at its four corners. The container may be made from a molded plastic material, and in such molding the bottom and side walls of the container are shaped to provide raised platforms, imitation structures and the like. Also the bottom wall may be made from a non-magnetic sheet of metal.

Generally speaking, there is a bottom wall **12**, side walls **13**, **14**, **15** and **16**, and a top wall **17**. The top wall will be transparent and the other walls may also be transparent, if desired. The top wall **17** is a separate piece and is suitably held in place, such as by the clamping strips **18** secured to the edge of the side walls.

The contour of the bottom wall is arranged so that there are provided platforms at different locations. Thus, there is a platform **20** with a ramp **21** leading thereto, while a receiver **22** is provided at the end of the platform into which imitation snow such as rice may be dumped. A void **23** (see FIG. 3) is located beneath the platform so that a person may place his hand in this void for purposes hereinafter described.

A second platform **25** may be formed adjacent another side, such as **13**, of the container with ramps **26** and **27** leading up to this platform from either side thereof, while adjacent the inner side of this platform there is a bin **28** provided for storage of the imitation snow. A void **32** (see FIGS. 4 and 6) is provided beneath the platform and ramps, while a shaft **33** may extend through the side wall **13** and be fixed to arm **34** with a handle **35** on the end of this shaft **33** so that the same may be manipulated to swing a truck body to dump snow into the bin **28**.

The bottom wall is also provided with imitation buildings or other structures **40** which might be found in a village or the like. One of such buildings which is designated **41** (FIGS. 1 and 7) is an imitation garage for

the storage of vehicles to be presently described. This garage has a swinging door **42** which is fixed to a pivoted horizontal shaft **43** which extends through the wall **16** and is manipulatable by a handle **44** so as to raise the garage door from the outside of the container. This handle **44** may be maintained in raised position by reason of a pin **45** extending from the wall **16** so as to hold the handle and garage door raised, while in lowered position it may rest against the bottom wall **12** of the container. The raised position is illustrated in dot-dash lines in FIG. 7.

Rice or some other article of finely divided form may be scattered by shaking the container over the roads represented by the bottom wall of the container and which is so confined by reason of the closed container that the imitation snow and articles therein cannot escape therefrom even though the container is turned upside down.

Located within the container, there will be several vehicles, and one of the vehicles will be a snow plow and pick-up scoop **50** comprising a truck **51** (FIG. 10) with a scoop **52** located at the forward end thereof as shown. A steel cylinder **53** (see FIG. 15) will be located rotatably beneath this truck in such as manner that the truck is partly supported on this cylinder and partly supported on wheels such as **54**. This cylinder will be magnetically attractable, and with a truck such as shown in FIG. 10 located within the container, a magnet **100** such as shown in FIG. 13 may be utilized by placing the same close to the under surface of the bottom wall in adjacency to the vehicle **50**, and then by manipulating this magnet, it may be moved as desired. Assuming that the vehicles are in the garage **41**, the first step would be to raise the garage door **42** by means of the handle **44** outside of the container and then manipulate the vehicle **50** so that the snow scoop may be made to collect in its portion **52** the rice which has been scattered over the surface of the bottom wall, and this truck may be manipulated so as to deposit this rice by the truck going up the ramp **21** to the platform **20** and pushing this rice into the receiver **22**. The magnet may be held close to the plow by reason of the deflected ramp and void. This plow may be manipulated until the roads about the buildings represented in the container are clear of rice or snow and that snow deposited in a hopper **22**.

The next maneuver is performed by a dump truck **55** shown in FIGS. 8 and 9 which likewise has a cylinder of steel **53** located in its undersurface partly supporting the truck while the remainder of the truck is supported by wheels **57**. This truck has a chassis **58** and a body **59** pivoted on this chassis by pins **60**. The body which is pivoted has a depending wing **61** projecting therefrom and has a generally V-shape containing body. The chassis and its wheels are so that these may be run under an overhanging part as will presently appear.

The next maneuver is to utilize the truck **55** to convey the snow from the hopper **22** to the bin **28**. Thus the truck is manipulated to a point adjacent the receiver **22** such as along the road **65** to a point so that the truck body will be beneath the conveyor designated generally **66** which comprises pivoted pulleys **67** and **68** about which a belt **69** extends. This belt has conveyor scoops **70** along its surface so that as the pulleys are rotated, the conveyor belt will pick up the snow in the receiver **22** and dump it into the truck body **59** which is maneuvered so as to be beneath it. The lower pulley **67** has a shaft **71** which extends out through the side wall **73** (FIG. 3) of the receiver into the void **23** where it may be manipulated by a knob or handle **72** accessible through the void so as to turn this shaft and manipulate the conveyor to dump the snow into the truck. Side walls **74** close to the edges of the belt prevent the rice or snow from engaging the inner surface of the conveyor belt.

When the truck is full of snow or as much as it can carry, the truck is then moved along the road **65** and up the ramp **26** to the platform **25** and at such locations that the wheels and chassis are beneath the overhanging lip **75** which projects inwardly from the side wall **13** of the container. Again this may be done by reason of the deflected bottom wall and ramp beneath, enabling the magnet to be held close to the vehicle. Thus, the chassis extending beneath the lip **75** will hold the chassis on its wheels, while the arm **34** on the shaft **33** which passes through the side wall **13** may be turned by handle **35** so that the arm **34** will engage beneath the cam shaped wing **61** of the pivoted body **59** and tip this body so as to discharge the imitation snow into the bin **28**. The truck may then have its body righted by removing the arm **34** allowing the weight **76** to right the empty body and then manipulated down the ramp **27** and through suitable roads or passageways around to road **65** where another load may be placed in the truck by the conveyor **66**.

A further vehicle which is utilized is that of an imitation bus designated generally **80** and shown in FIG. 11. This bus has a recess or imitation open door **81** and is provided with a cylindrical steel member **53** as is the case of the other vehicles and upon which the bus is partly supported, while it is supported also by wheels **82** and **83**. The recess **81** is of a size and shape so that a man **85** (see FIG. 12) may be magnetically moved into this recess, and by reason of the magnetic base **86** upon which he is mounted, this man may be manipulated so as to clean snow from some certain area such as corners or the like along the bottom wall. This man may be placed within the bus by magnetically sliding him into the recess **81**, and then the bus may be manipulated to some location where it is desired that the man get out of the bus which can be done by then directing the magnet to a position beneath the location of the man and the recess **81** of the bus.

After this manipulation has been completed, if it is desired to repeat the operation, the container may be moved about so as to scatter the snow over the roads again and the operation may be repeated.

If in scattering the snow over the road, any of the vehicles should be capsized or turned over, then it will be desirable to right the same, and this may be done by passing the rod **96** (FIG. 14) through an opening such as **97** (FIG. 1) in one of the side walls and using the hook end of this rod to right the vehicle, after whtich this rod may be positioned either on some support such as one of the buildings which the container or may be withdrawn therefrom. In case the opening **97** is larger than a particle of snow, a cover **98** pivoted for movement to or from a position over opening **97** may be used to close opening **97**.

By reason of the use of a cylindrical piece of steel such as shown in FIG. 15, there may be provided north and south poles so that the north and south poles of the magnet **100** may be adjusted with the north pole of the magnet at the south pole of the roller and the south pole of the magnet at the north pole of the roller so that directional movement may be more easily given to the vehicles which are manipulated.

In some cases it may be desired to spread the rice about the bin **28**, and in this case a little magnetic spreader device may be utilized located in the bin, and by manipulation of this small piece of magnetic material, the rice may be readily distributed over the surface of the bin.

In order to provide some sort of a guide for the location of the vehicles in points where it is somewhat critical, guiding means **88** and **89** may be provided to locate the dump truck beneath the conveyor **66** while guiding means **92** cooperating with the edge of the bin **93** may be utilized for guiding the vehicle in a location to be dumped by the arm **34**.

I claim:

1. A toy comprising a container having a non-magnetic generally flat bottom wall of substantially uniform thickness and enclosing side walls, magnetic imitation vehicles

within the container, a magnet for manipulating said vehicles over said bottom wall, said bottom wall being deflected upwardly from a generally flat surface raised to provide a platform with a ramp merging from the bottom wall and leading to the platform providing a void beneath said raised platform for the manipulation of the magnet in the void to move the vehicle up the ramp to the raised platform and loading means adjacent the platform comprising a conveyor with a shaft extending through an upwardly extending portion of the bottom wall into said void, and a handle on said shaft.

2. A toy comprising a container having top wall, a non-magnetic generally flat bottom wall and enclosing side walls, an enclosing inner wall upstanding from said bottom wall to a height less than said side walls providing a bin, said bottom wall being deflected upwardly adjacent said bin to provide a ramp merging into the bottom wall and leading to a raised platform with a void beneath, a magnetic imitation dump vehicle within the container, a magnet manipulatable in said void for moving said vehicle up said ramp to the platform and means for dumping the contents of the vehicle into the bin.

3. A toy as in claim 1 with means in said bin to spread about the bin material dumped thereinto.

4. A toy comprising a container having top wall, a non-magnetic generally flat bottom wall and enclosing side walls, an enclosing inner wall upstanding from said bottom wall to a height less than said side walls providing a bin, said bottom wall being deflected upwardly adjacent said bin to provide a ramp merging into the bottom wall and leading to a raised platform with a void beneath, a magnetic imitation dump vehicle within the container having a rockable body, a shaft extending from a point adjacent said platform through a side wall and having a lever thereon adjacent the platform and a handle on the outer side of the side wall, a magnet manipulatable in said void for moving said vehicle up said ramp to the platform to a location adjacent said lever so that the vehicle may be rocked by rotation fo the shaft to discharge its load into said bin.

5. A toy as in claim 3 wherein weighting means are contained in said rockable body to right said body after dumping.

6. A toy comprising a container having a generally flat,

non-magnetic bottom wall of substantially uniform thickness and enclosing side walls, an imitation vehicle within said container, a cylindrical magnetic member within and partly supporting said vehicle and engaging said bottom wall, and a magnet for manipulating said vehicle over said bottom wall and rolling said magnetic member.

7. A toy comprising a sealed container having top, bottom and enclosing side walls extending between the top and bottom walls, loose non-magnetic particles within the container scattered over the bottom wall, a magnetic imitation vehicle within the container and magnetic means operable from outside the container for manipulating the vehicle to move the loose particles in the container, one of said side walls having an opening therein and a rod of a length to extend through said opening to said vehicles to right the same, and means to prevent passage of said particles through said opening.

8. A toy comprising a container having a generally flat bottom wall and enclosing side and top walls, an imitation garage within said container having one of the side walls adjacent the container side wall and a second side wall spaced therefrom leaving an open front for the garage, a closure door for said open front having a pair of arms rigid with said door and extending along either side of said garage side walls, means pivoting said arms thereon, the pivot in the garage side wall adjacent the side wall of the container extending through the container side wall and operable means attached to said pivot to swing said door about said pivots and open the door.

References Cited

UNITED STATES PATENTS

1,879,845	9/1932	Delich	46—40
2,522,160	9/1950	Borchers	46—12
2,637,140	5/1953	Hoff	46—240
2,658,602	11/1953	Bonnano et al.	46—40 X
2,673,421	3/1954	Leonard	46—240
3,106,042	10/1963	Roethler	46—240

F. BARRY SHAY, *Primary Examiner.*

RICHARD C. PINKHAM, ANTON O. OECHSLE, *Examiners.*

R. F. CUTTING, *Assistant Examiner.*