

(12) UK Patent Application (19) GB (11) 2 092 012 A

(21) Application No 8202826

(22) Date of filing
1 Feb 1982

(30) Priority data

(31) 230615

(32) 2 Feb 1981

(33) United States of America
(US)

(43) Application published
11 Aug 1982

(51) INT CL³ A63F 9/00 //
A63H 18/08

(52) Domestic classification
A6H 9
A6S 19A4E4 19A4H
19D3B 19D5

(56) Documents cited
None

(58) Field of search
A6H

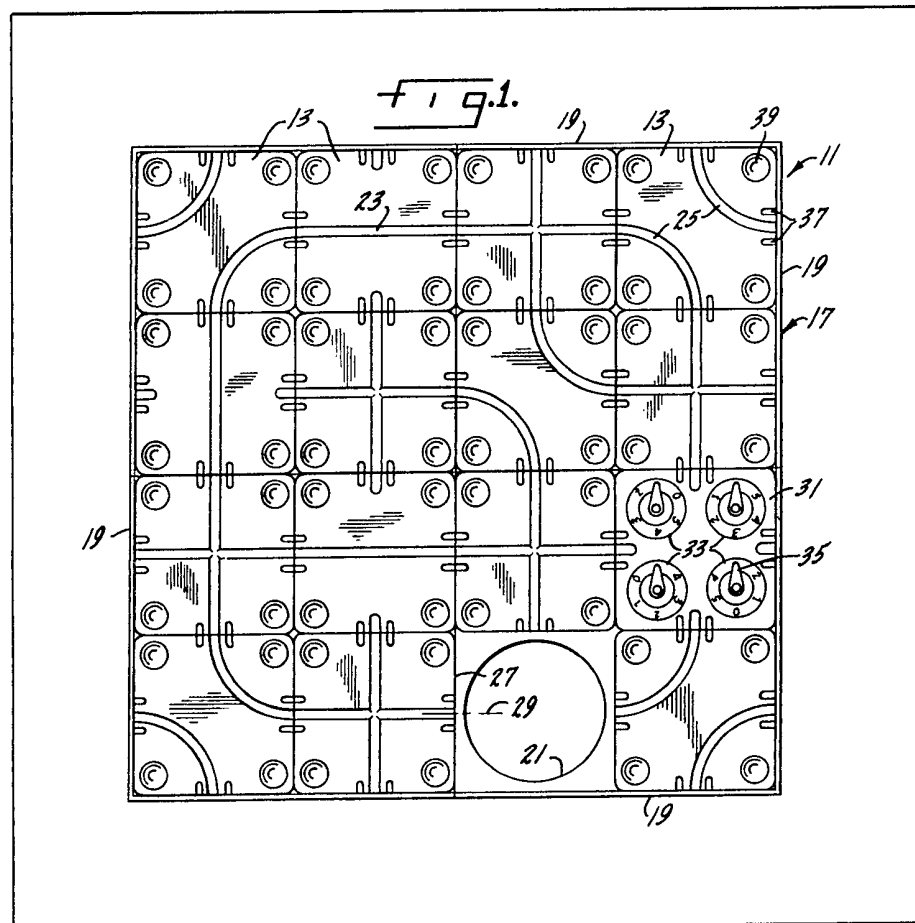
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(54) Board game having sliding grooved tiles and a vehicle

(57) The game (11) includes grooved tiles (13) slidable relative to one another on a base (17) to form patterns of grooves with at least one vacant space equal in size to a tile. Depressions (39) aid movement of the tiles over the base. All grooves (23, 25) can meet at the midpoints of adjacent side edges (27) so that continuous paths can be formed from adjacent tiles (13) but discontinuous paths can also be formed. An electric powered vehicle (not shown) is provided to move across the tiles and has a guide which rides in the grooves to direct the vehicle across each tile (13). An alarm bell on the vehicle (15) sounds when the vehicle (15) reaches an edge (27) of a tile (13).



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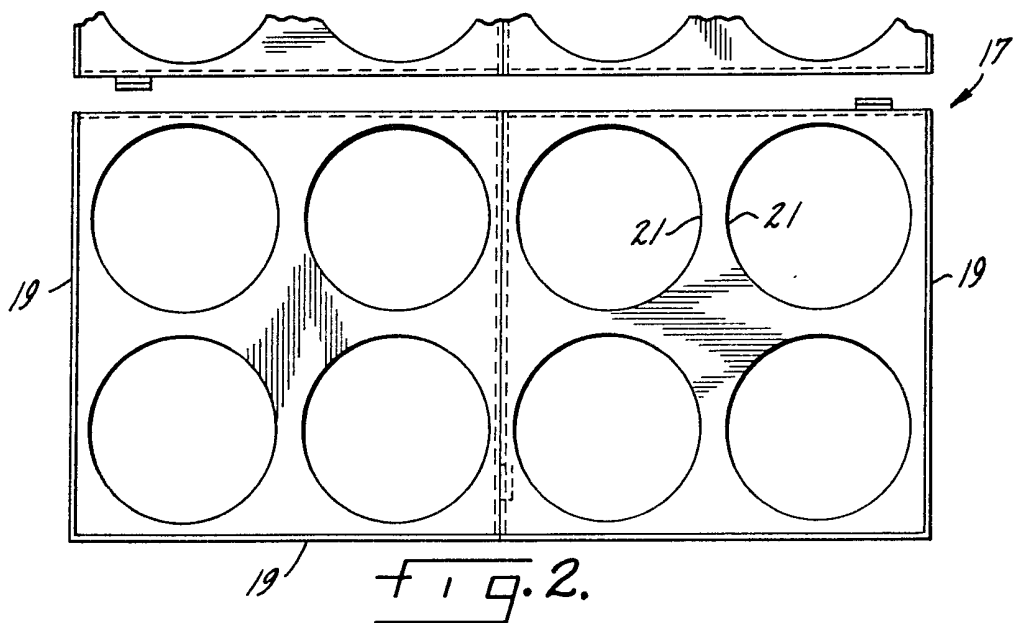
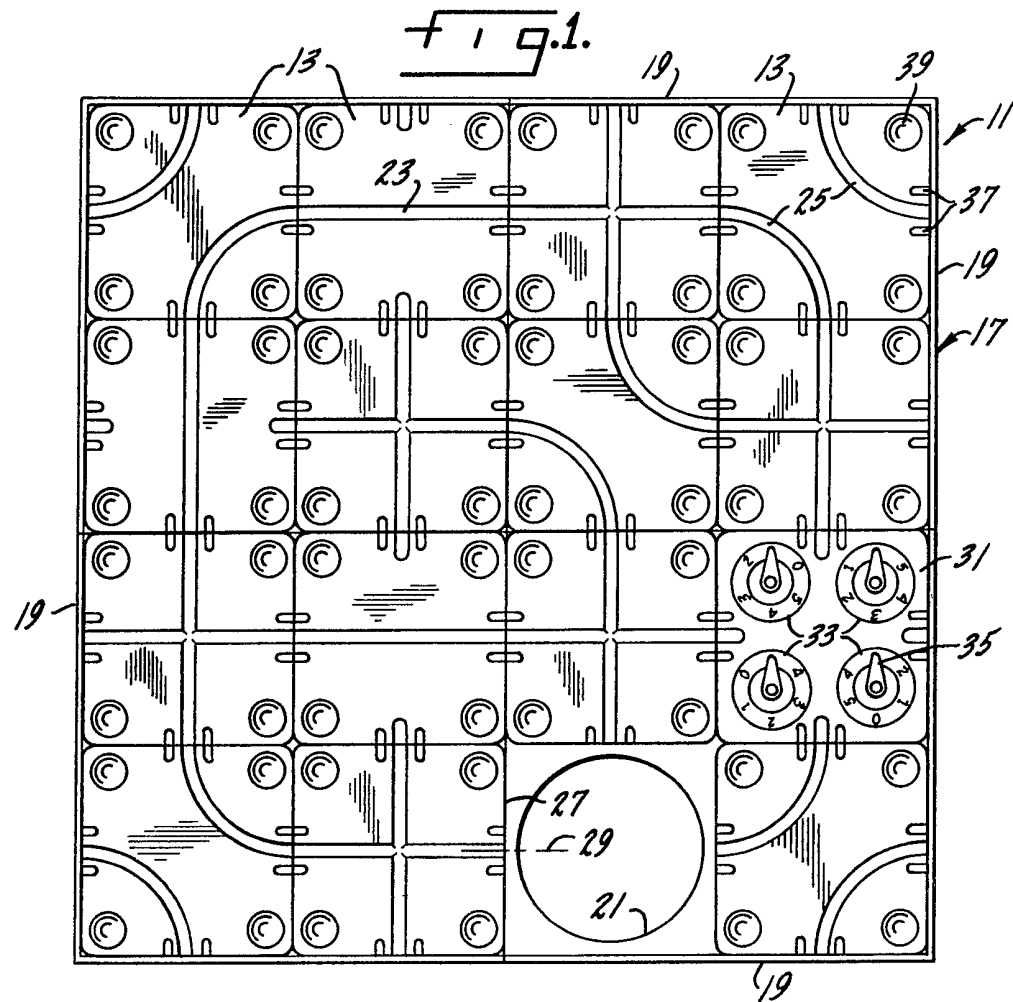


fig. 3.

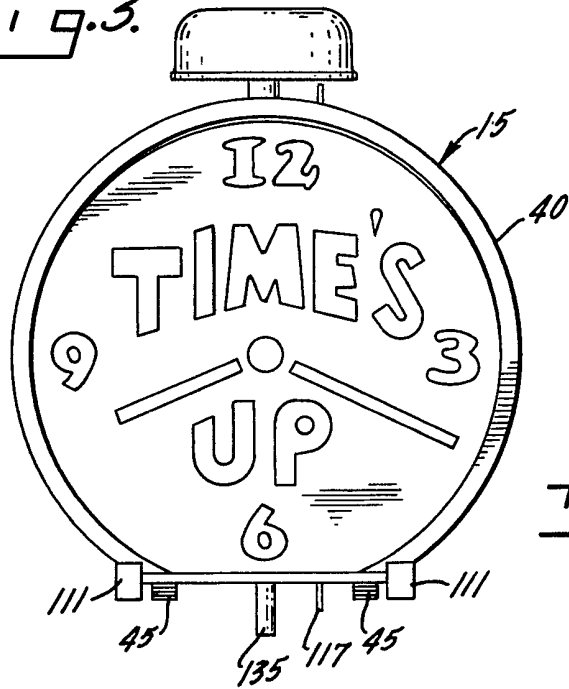


fig. 4.

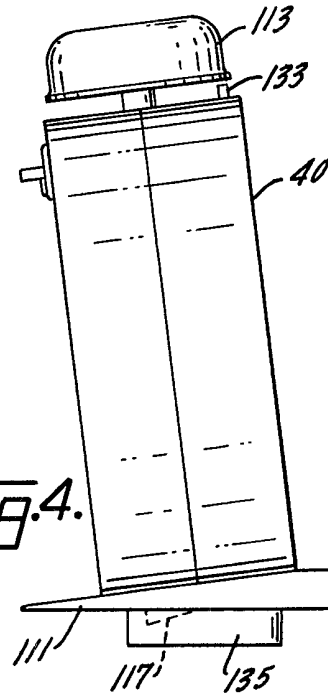


fig. 5.

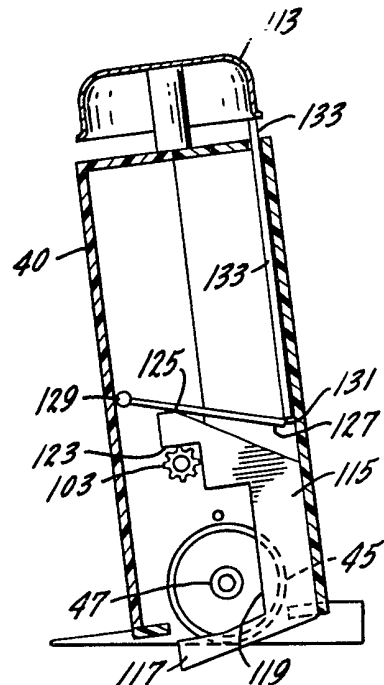
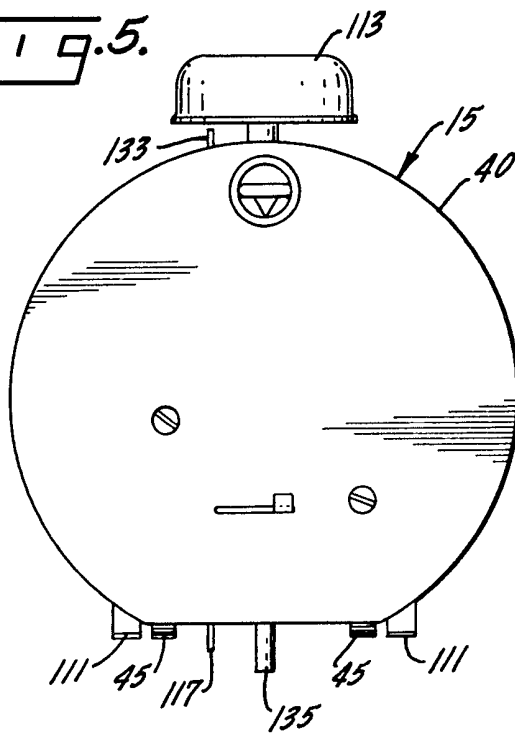
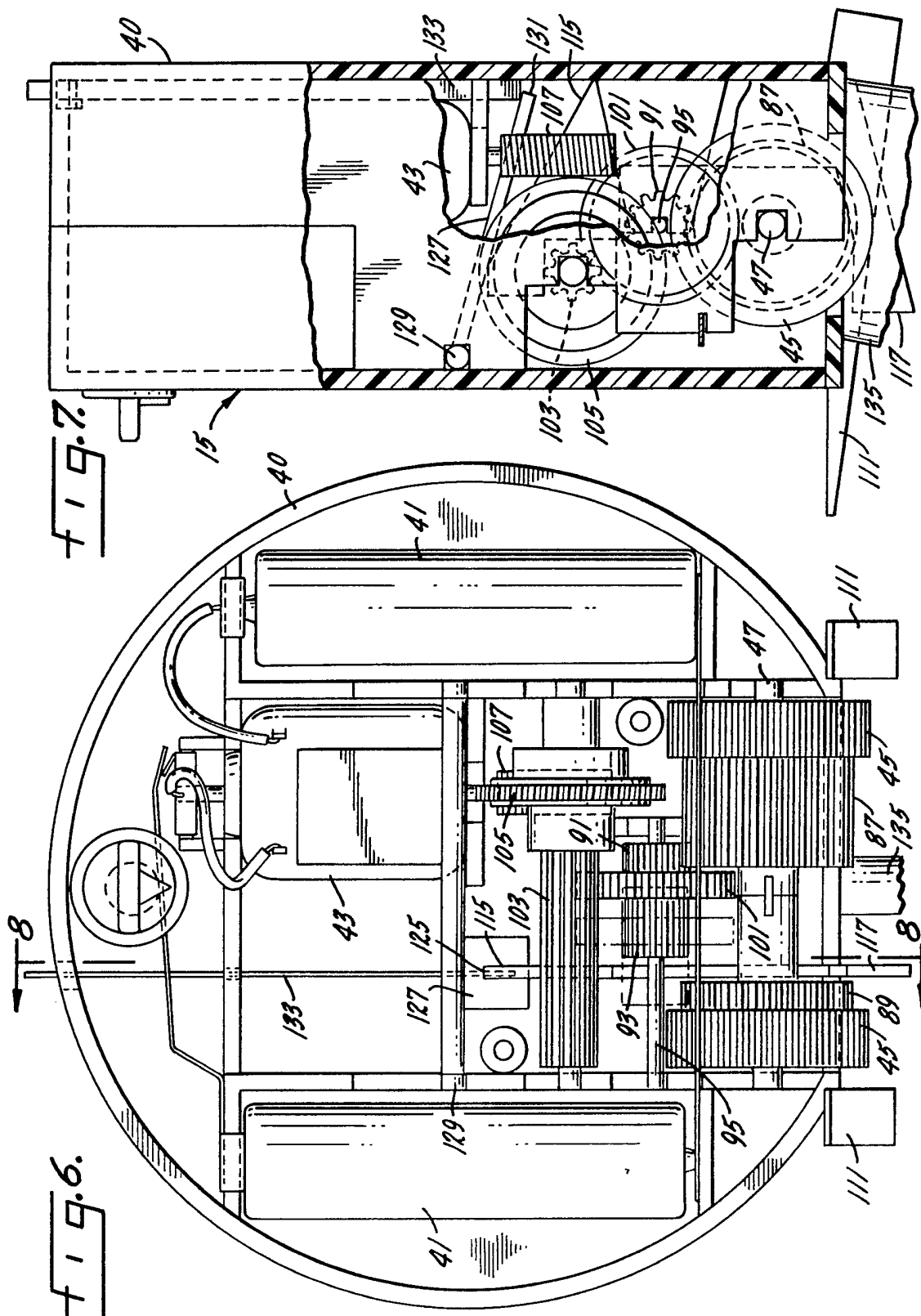


fig. 8.



SPECIFICATION

Board game with path creating tiles for vehicle

This invention is concerned with a board game which can be played by two, three or more players and utilizes tiles which can be moved by the players with the objective of providing a continuous path of travel for a self-propelled vehicle moving upon the tiles.

According to the present invention, there is provided a board game including:

(a) a plurality of generally similar tiles slidable relative to one another to form a pattern with one vacant space equal in size to a tile;

(b) at least one groove formed in the top surface of some of the tiles and more than one groove formed in the top surface of other of the tiles with each groove extending from one side edge of a tile to another side edge of that tile with each groove meeting the side edges of its tile at the midpoints of those side edges so that a continuous path can be formed by two adjacent tiles if each of those adjacent tiles has a groove extending to that one of its side edge that is contiguous with the other of those adjacent tiles, or a discontinuous path can be formed if one tile does not have a groove extending to one of its side edges that is contiguous with an adjacent tile;

(c) as self-propelled vehicle adapted to move across the tiles, the vehicle having guide means which rides in the grooves to steer the vehicle across the tiles;

(d) an alarm carried by the vehicle; and

(e) means to sound the alarm when the vehicle reaches a side edge of a tile.

The tiles can be used to provide a track for the self-propelled vehicle made up of a groove in each piece of tile. Some tiles may have only straight grooves. Others may have only curved grooves while some tiles may have cross grooves. In one set of rules for playing such a board game, each player in turn must move the tiles to provide a continuous track for the vehicle. The manipulation of the tiles must be accomplished while the vehicle is moving across a tile. The parts of the board game may be so made that the self-propelled vehicle sounds an alarm when it reaches the edge of a tile which alarm ends as the vehicle starts moving across the next tile, assuming of course, that the grooves of adjacent tiles are properly aligned so that the vehicle can continue movement.

Preferably, the self-propelled vehicle is so made that it can move either at a low or at a high speed, depending on the ability of the players.

An example of a board game in accordance with the present invention is illustrated diagrammatically in the accompanying drawings, in which—

Figure 1 is a top plan view of parts of the

game board;

Figure 2 is a partial top plan view of the base of the game board, showing sections of the base detached from one another;

Figure 3 shows, on larger scale, an elevational view of the self-propelled vehicle for use with the board game;

Figure 4 is a side elevational view of the vehicle of Fig. 3;

Figure 5 is a rear elevational view of the vehicle of Fig. 3;

Figure 6 shows, on a larger scale still, a rear elevational view of the vehicle with the back of the vehicle removed and some parts broken away for clarity;

Figure 7 is a side elevational view of the vehicle with portions broken away for clarity; and

Figure 8 shows on a smaller scale than that of Figs. 6 and 7, a sectional view taken along the line 8-8 of Fig. 6.

A board game 11 shown in the Figures includes tiles 13, a self-propelled vehicle 15 in the shape of an old-fashioned alarm clock, and a base 17 on which the tiles are supported for sliding movement. The base 17 is surrounded by four peripheral walls 19 which retain the tiles 13 on the base. To reduce the weight of the base and to reduce cost by using a minimal amount of plastic in forming the base, circular openings 21, each of which is smaller than the tile, are formed in the base.

In this embodiment of the invention, fifteen tiles are provided with each tile being formed in the shape of a square. It will be appreciated that other shapes are possible, such as a rectangle. The base is also in the form of a square sufficiently large to hold sixteen tiles. For ease of manufacture, the base may be formed in sections, preferably four sections, which snap fasten to one another by means of fasteners 22. Straight grooves 23 are formed in the top surfaces of some of the tiles and curved grooves 25 are formed in other tiles. Each groove, whether straight or curved, meets a side edge 27 of its tile at the midpoint 29 thereof.

In this embodiment of the invention, fourteen of the fifteen tiles are provided with grooves. Three of these tiles have a single straight groove 23. Six of the tiles have two straight grooves 23 which extend at right angles to each other to form a cross on the tile and five have a pair of curved grooves 25 which grooves open towards opposite corner edges of the tile and do not intersect. The fifteenth tile is a scoring 31 which has four dials 33 formed thereon with numbers 0 to 5 marked around each dial. Each dial is also equipped with a pointer 35 for indicating the selected number.

A pair of recesses 37 are located on opposite sides of each groove adjacent to the point where the groove meets the side edge of the

tile. Opposite ends of each recess are sloped or rounded. Depressions 39 are formed in each corner of a tile to aid in sliding the tile over the base 17.

- 5 The self-propelled vehicle 15, which includes a housing 40 moulded to have the appearance of an old-fashioned alarm clock, contains one or more batteries 41 which power a motor 43. The batteries are each 10 1/2 volts of the conventional AA type. The motor propels the vehicle through drive wheels 45 which engage the tiles 13. The drive wheels are mounted on an axle 47 to which are affixed gear wheels 87 and 89. A spur gear 91 is engageable with the gear wheel 87 for low speed operation and a spur gear 93 is engageable with the gear wheel 89 for high speed operation. A gear 101 is affixed to a slidable drive shaft 95. A lever 20 102 for sliding the shaft extends out of the rear of the vehicle housing 40. The gear 101 engages a splined shaft 103 having a sprocket gear 105 mounted thereon. The gear 105 is driven by a worm gear 107 driven by 25 the electric motor 43.

- Tapered skids 111 are located on the vehicle housing 40 outwardly of the drive wheels 45. The skids are tapered from the front face of the vehicle housing 40 to the rear to tilt the vehicle housing rearwardly approximately 5° to 10° from the vertical.

- An alarm bell 113 is mounted on the top of the clock-like vehicle housing 40. This bell is rung by rotation of the splined shaft 103 when the bell actuator 115 drops into a recess 37 in a tile. The bell actuator 115 is an elongated thin plate of irregular cross-section which is mounted for vertical movement in the housing 40 between the vehicle drive 35 wheels 45. It includes a rearwardly extending and downwardly inclined foot 117 which rides on the tiles 13 and drops into the recesses 37 formed in the tiles. The bell actuator is notched above the foot 117 to provide a recess 119 which receives the vehicle axle 47. Another notch is formed in the actuator to provide a wall 123 which engages the splined shaft 103 when the actuator drops into a recess. The engagement of the rotating 40 splined shaft 103 with the wall 123 forces the top edge 125 of the actuator against a pivotally mounted arm 127 at a location near its pivot 129. The outer end 131 of the arm engages and supports a vertically slideably mounted plunger 133, preferably formed of 45 metal, which is lifted into contact with the bell 113. Rapid vertical reciprocal movement of the plunger 133 rings the bell. The bell stops ringing if the actuator is lifted out of a recess of an adjacent tile as the vehicle moves along 50 from that recess.

- A vertical guide 135 is attached to the housing 40 at the bottom thereof and is positioned to ride in the grooves 23 and 25 65 formed in the tiles 13. The guide has a

horizontal cross-sectional shape somewhat like that of a dumbbell with wider portions at the front and rear tapering to a narrower centre section. This permits the guide to follow the curved grooves 25 without disengagement.

- 70 Energization of the electric motor 43 is accomplished by rotation of a switch 137 which rams a moveable contact 139 into engagement with a fixed contact 141 to complete the circuit between the batteries 41 and the electric motor.

- The board game 11 may be played by two to four players. The tiles 13 are arranged in any manner on the base 17 with one space 80 being free of a tile. Each player is assigned one of the dials 33 and the pointer 35 in each dial used by a player is set to the number 5. One of the players is selected by lot or otherwise to begin the game. The vehicle 15 85 is placed on a randomly selected tile at the edge thereof with its guide member 135 located in either a straight groove 23 or a curved groove 25 depending on the particular tile on which the vehicle is placed. With the vehicle at the edge of the tile, the inclined 90 foot 117 of the bell actuator 115 will be located in a recess 37 and consequently the bell 113 will be ringing. The vehicle 15 is started moving forward with the face of the clock-like vehicle considered as its front.

- The player selected to start the game must now slide the tiles 13 on the base 177 so that a continuous grooved path is formed for the vehicle. This means that at least the tile 100 adjoining the tile on which the vehicle is moving must have a groove aligned with the groove in which the guide member 135 of the vehicle 15 is located. The player can slide any number of tiles but he must complete the 105 path before the vehicle reaches the opposite side of the tile on which it is moving. When it reaches this opposite side, the bell actuator 115 will drop into one of the recesses 37 located adjacent the groove, sounding the bell.

- If the bell rings before a groove alignment is made in the next contiguous tile, then the player loses the game and subtracts one point from his score by moving his pointer 35 115 on his dial 33 to the next lower number. If a tile 13 with a groove which matches the groove on the tile on which the vehicle is operating is properly positioned, then the next player in order takes his turn moving tiles to continue the path when it moves across the 120 next tile. The game can be played until one or more players have reduced their scores to zero.

125 CLAIMS

1. A board game including:
 - (a) a plurality of generally similar tiles slidably relative to one another to form a pattern with one vacant space equal in size to a tile;
 - (b) at least one groove formed in the top

- surface of some of the tiles and more than one groove formed in the top surface of other of the tiles with each groove extending from one side edge of a tile to another side edge of that tile with each groove meeting the side edges of its tile at the midpoints of those side edges so that a continuous path can be formed by two adjacent tiles if each of those adjacent tiles have a groove extending to that one of its side edges that is contiguous with the other of those adjacent tiles, or a discontinuous path can be formed if one tile does not have a groove extending to one of its side edges that is contiguous with an adjacent tile;
- 5 (c) a self-propelled vehicle adapted to move across the tiles, the vehicle having guide means which rides in the grooves to steer the vehicle across the tiles;
- 10 (d) an alarm carried by the vehicle; and
- 15 (e) means to sound the alarm when the vehicle reaches a side edge of a tile.
- 20 2. A board game according to claim 1, in which the one groove formed in the top surface of each of some of the tiles extends from the midpoint of one side edge of the tile to the midpoint of the opposite side edge of the tile.
- 25 3. A board game according to claim 1 or claim 2, in which a pair of grooves extending at right angles to each other are formed in each of some of the tiles, and each one of the pair of grooves extends from one side edge of the tile to an opposite side edge of the tile.
- 30 4. A board game according to any preceding claim, in which a pair of non-intersecting curved grooves are formed in the top surface of each of some of the tiles, with each of the pair of grooves extending from a side edge to an adjacent side edge of the tile.
- 35 5. A board game according to any preceding claim, in which the means to sound the alarm includes at least one recess formed in the top surface of each tile, with the recess being positioned adjacent to the inner section of a groove in the tile with a side edge thereof and an alarm operating lever carried by the self-propelled vehicle, which lever drops into the recess to operate the alarm when the vehicle reaches the recess and is lifted out of the recess by engagement with the top surface of the tile to shut off the alarm when the vehicle moves away from the recess.
- 40 50 6. A board game substantially as described herein with reference to the accompanying drawings.
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