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Cooper

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[54] **RACING TOPS**

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[73] Assignee: **Ideal Toy Corporation,** Hollis, N.Y.

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[52] **U.S. Cl.** ..... **273/86 C,** 273/108, 46/67

[51] **Int. Cl.** **A63f 9/14**

[58] **Field of Search** .... 273/86 R, 86 C, 108, 121 R, 273/121 A; 46/65, 67, 71

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[57] **ABSTRACT**

A racing top game is disclosed which includes an inclined playing surface upon which a plurality of spinning tops may be launched, and a peripheral barrier wall extending upwardly from the playing surface to retain the tops on the surface. The barrier wall has a plurality of top launching stations formed therein at the uppermost end of the playing surface and a discharge or "finish line" passage formed at the lowermost end of the playing surface and through which the tops may pass. A plurality of rigid obstacles extend upwardly from the playing surface so that tops launched onto the playing surface from the launching stations are deflected along their paths of travel by the obstacles as they move from the uppermost end of the playing surface towards the lower end thereof to achieve a random discharge of tops from the playing surface through the discharge passage.

14 Claims, 4 Drawing Figures

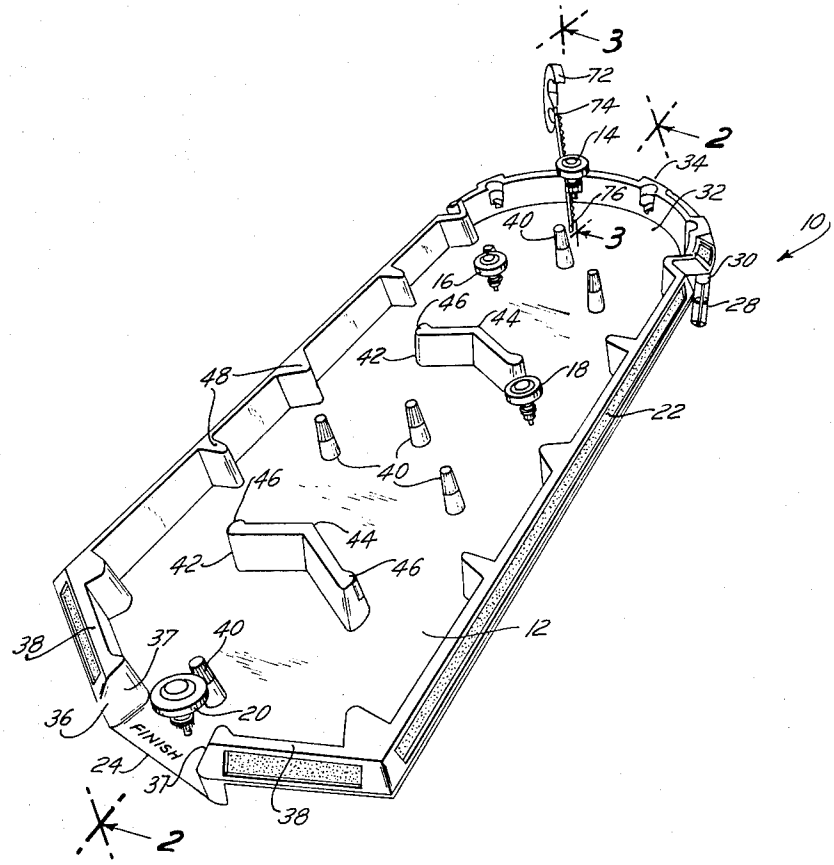


FIG. 1

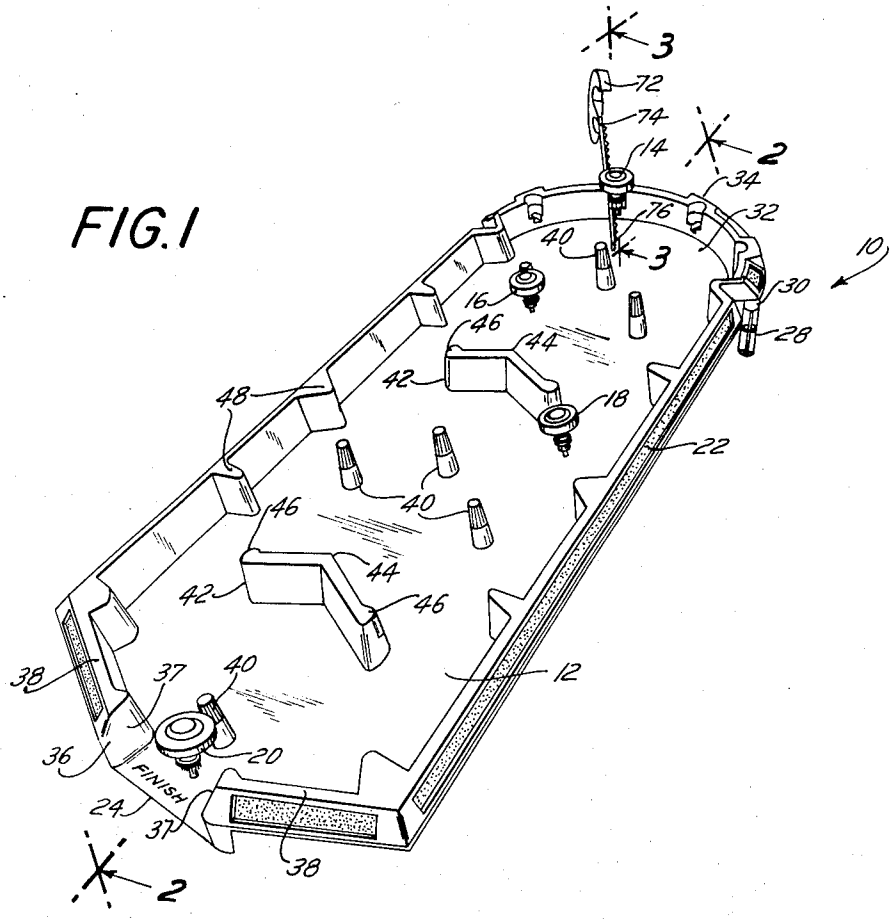
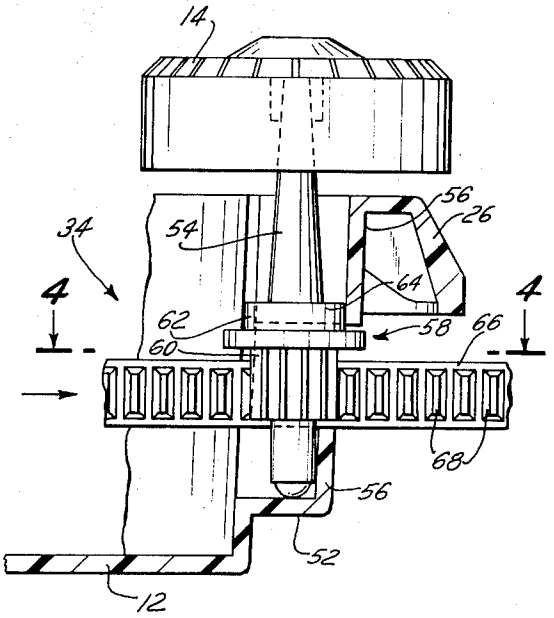

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76
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FINISH
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FIG. 3


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64
4
62
58
66
60
68
56
52
12

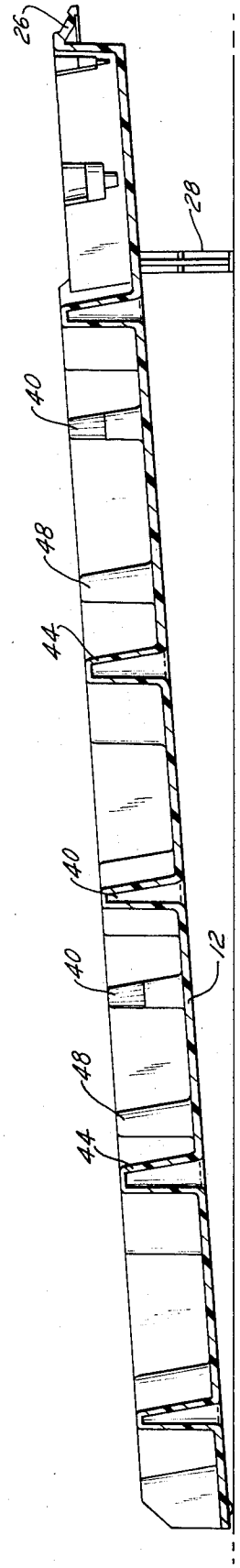


FIG.2

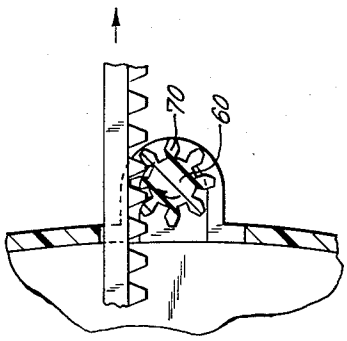


FIG.4

RACING TOPS

The present invention relates to a top game and more particularly to a game in which tops can be raced from one end of a playing surface to another.

Top games have been previously proposed in which an individual top is launched on a playing surface to knock over individual pins or balls supported on the playing surface, with the object of the game being for each individual player to accumulate the most "points" based on the number of objects knocked down by his top. Such games are normally played with one top on the playing surface at any given moment so that only the single top knocks down the pins or the like, which thereafter must be reset for the turn of the next player. Such games do not lend themselves to simultaneous play by individual players, such that the tops of each player will be simultaneously competing against each other towards a given objective.

Accordingly, it is an object of the present invention to provide a top game in which a plurality of individual tops simultaneously compete against each other on a playing surface towards a given objective.

Another object of the present invention is to provide a game in which a plurality of tops may be simultaneously launched and raced along a playing surface.

Still another object of the present invention is to provide a racing top game in which a plurality of tops are simultaneously launched at one end of a playing surface and raced along the playing surface to a finish line.

In accordance with an aspect of the present invention the racing top game includes an inclined playing surface having upper and lower opposed end portions with a peripheral barrier wall extending upwardly from the playing surface. The barrier wall has a plurality of top launching stations formed therein at the upper end of the playing surface and a top discharge passage at the lower end of the playing surface through which individual tops may pass. This discharge passage forms a finish line for the racing tops.

The tops are initially placed in the launching stations by the players and spinning is initiated in any convenient manner so that the individual tops are substantially simultaneously launched from the launching stations onto the playing surface. The tops will gravitate towards the lower end of the inclined playing surface and the first top through the discharge passageway formed at the lower end of the surface in the peripheral wall is the "winner" of the game.

To enhance the play and to provide for a random discharge of the tops from the playing surface, a plurality of upwardly extending rigid obstacles are formed on the playing surface in order to obstruct passage of tops from the launching station to the discharge end. Additional obstacles are formed on the inner surface of the peripheral wall. The obstacles will deflect the tops in their path of travel from the launching stations to the discharge end of the playing surface so as to add excitement to the game and uncertainty as to which of the tops will ultimately be the first to cross the finish line and pass through the discharge end of the playing surface.

The above, and other objects, features and advantages of this invention will become apparent in the following detailed description of an illustrative embodiment thereof which is to be read in connection with the accompanying drawings wherein:

FIG. 1 is a perspective view of a racing top game constructed in accordance with one embodiment of the present invention and showing a top in position to be launched and a plurality of previously launched tops moving along the playing surface;

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is an elongated sectional view taken along lines 3—3 of FIG. 1 showing a top in position at a launching station; and

FIG. 4 is a view taken along line 4—4 of FIG. 3.

Referring to the drawing in detail, and initially to FIG. 1 thereof, it will be seen that a racing top game **10**, embodying the present invention, as shown therein, includes a playing surface **12** along which a plurality of tops **14, 16, 18,** and **20** move during play of the game. Playing surface **12** is bounded by a peripheral wall **22** which extends generally vertically upwardly from the playing surface to prevent tops **14–20** from moving off the playing surface except at the end **24** thereof, as more fully described hereinafter.

Wall **22** includes a peripheral outer flange **26** which forms a rim about the game and to which a pair of legs **28** (only one of which is seen in the drawing) are secured on opposite sides of the playing surface for supporting playing surface **12** in an inclined configuration. Legs **28** are received in and frictionally engaged within hollow cylindrical sleeves **30** at opposite sides of the uppermost end **32** of playing surface **12** to support the playing surface in a stable configuration. These legs can be removed from sleeves **30** for storage of the game.

A plurality of launching stations **34** are formed in peripheral wall **22** adjacent the end **32** of playing surface **12** and tops launched at these stations will spin along surface **12** towards the lower end **24** thereof. Barrier wall **22** forms a discharge passage **36** at the lower end of the playing surface between the spaced ends **37** of a pair of converging wall portions **38.** Discharge passageway **36** forms a "finish line" for the tops raced along playing surface **12.**

Playing surface **12** and peripheral barrier wall **22** are integrally molded from a plastic material in a one piece construction, with playing surface **12** having a plurality of vertically extending obstacles formed therein. These obstacles can take a number of various configurations, although preferably, as illustrated in FIGS. **1** and **2,** the obstacles include one or more groups of frustroconical members **40** positioned in spaced arrays with respect to each other. In addition, one or more chevron shaped walls **42** are provided with their apices **44** directed towards the upper end of playing surface **12.** It is noted that apices of chevrons **42** are pointed towards launching stations **34** so that tops striking the chevrons will be deflected outwardly therefrom and will not become caught or "hung up" in the chevron. Moreover, the obstacles utilized in the game are spaced a sufficient distance from one another so that it is not possible for any of the tops to become hung up or stopped between two obstacles. Thus, a clear path of travel is provided around all of the obstacles placed on the playing surface.

Wall **22** also is provided with obstacles to cause further deflections of tops spinning on surface **12.** In the preferred embodiment, a plurality of generally triangu-

larly shaped wall extensions **48** are formed on the inner surface **50** to serve as additional obstacles.

To further enhance the random deflection of the tops and the speed of travel thereof, frustroconical members **40** and ends **46** of chevron shaped walls **44** may be fluted or serrated at their upper portions. These flutes or serrations will tend to slow down the spinning motion of the tops and cause a random deflection thereof.

With this type of obstacle arrangement, tops moving along surface **12** from upper end **32** thereof towards the "finish line" or passageway **36** will be deflected upon engagement with the obstacles **40, 42** along their path of travel. The deflection of the tops is purely random and depends upon the angle at which the tops strike the obstacles. Each top will therefore be deflected along a different path of travel so that the time taken for the tops to traverse playing surface **12** will vary, normally with one of the tops (**20** in FIG. **1**) reaching the "finish line" before the others and thereby "winning" the race.

The upper end **32** of playing surface **12** has a generally semi-circular peripheral edge from which the wall **22** extends. Top launching stations **34** are formed in this portion of wall **22** and are molded integrally therewith. Stations **34** include a flat shouldered portion **52** located in spaced parallel relation to playing surface **12** and extend outwardly therefrom. Shoulder **52** provides a seat for the stem **54** of a top placed in the launching station.

Wall **22,** at each of the stations **34,** includes arcuate wall portions **56** located in vertical spaced relation to each other to define an opening **58** therebetween. This opening permits the insertion of an operating member or the like for initiating spinning of the top at the launching station. While the structure of the top and the device for launching the top may take any configuration desired, for example a string wound about the stem **54** of the top, in the preferred embodiment of the apparatus the stem **54** of each top is provided with a spur gear **60** formed integrally therewith and located on the stem to be in position adjacent the opening **58** when the top is seated on shoulder **52** of the launching station. Stems **54** include an enlarged annular boss **62** which provides an annular surface **64** adapted to be engaged with upper annular wall section **56,** as seen in FIG. **3,** to hold the top in a vertical position when it is placed at the launching station and to provide a bearing surface against upper wall portion **56** and the top as the latter is rotated in the launching station.

In order to rotate tops **14-20** a rack or launching member **66** is provided having a plurality of teeth **68** formed thereon that are adapted to be engaged with the teeth **70** of spur gear **60.** Each of the racks (only one of which is shown in the drawing) is provided with a handle **72** which permits the rack to be pulled outwardly of playing surface **12** in the direction indicated by the arrows in FIGS. **3** and **4.** By initially inserting rack **66** in the aperture **58** of a playing station **34,** with the end **74** thereof at the opening, and the free end **76** thereof extending over the playing surface, a top, such as top **14** illustrated in FIG. **1,** can be seated in the launching station with teeth **70** of gear **60** meshed with teeth **68** of the rack. Upon pulling rack **72** outwardly of the playing surface, the engagement of these gear teeth will cause the top to spin, as illustrated in FIG. **4.** The meshing engagement of the teeth will hold the top at the launching station until the free end **76** is withdrawn past spur gear **60,** at which point the top has reached its maximum annular velocity. Once free end **76** of rack **66** passes the top, the top will jump off of shoulder **52** onto playing surface **12,** due to its annular momentum, and then will traverse playing surface **12,** moving towards the end **24** thereof and the "finish line" or passageway **36** under the influence of gravity. Along its path of travel the top will randomly engage the various obstacles along the path and be deflected thereby so that it will have a random path of travel, or perhaps even be stopped by successive engagements with the obstacles.

In playing the game provided by the device of the present invention, an individual top is placed in one or more of the launching stations **34,** with an individual rack **72** engaged therewith in the manner described above. When each of the tops and racks are in position and the players are ready to begin the game, one of the players will say "go" and all of the players will thereupon pull their racks or launchers **72** to spin their tops and thereby release them from their launching stations. The tops **14–20** will then traverse playing surface **12,** being deflected along their random path of travel by the various obstacles on or adjacent the playing surface and one of the tops will ultimately be the first to pass through passage **36,** thereby crossing the "finish line" and winning the game. When one of the tops crosses the finish line, the tops are again placed in the launching stations for a new race. The races can continue until one of the players has won a predetermined number of races.

It is noted that each of the tops and the launchers **72** may be formed of a different color in order to provide identity between the tops and the players.

Accordingly, it is seen that a top game is provided in which a plurality of players may simultaneously participate by spinning their tops on a single playing surface. The play is affected by the obstacles on the playing surface providing a random motion to each of the tops upon engagement with the obstacles and also by the manner in which the tops are launched. That is, the faster the rack **72** is pulled from the launching station, the more annular velocity the top launched will be given so that it will move at a faster rate along the playing surface.

Although an illustrative embodiment of the present invention has been described herein with reference to the accompanying drawings, it is to be understood that the invention is not limited to that precise embodiment and that various changes and modifications may be effected therein by one skilled in the art without departing from the scope or spirit of this invention.

What is claimed is:

1. A top game comprising a flat playing surface having upper and lower end portions and a peripheral barrier wall extending upwardly therefrom and means for supporting said playing surface in an inclined configuration sloping from said upper end portion to said lower end portion, said barrier wall having a plurality of independent top launching stations integrally formed therein at the upper end of said playing surface, and a top discharge passage at the lower end of said playing surface, a plurality of tops, independent means for separately initiating spinning of said tops at the respective launching stations, and a plurality of rigid obstacles extending upwardly from said playing surface, in spaced

relation to each other, for obstructing passage of tops from said launching stations to said discharge passage whereby tops independently launched at said respective launching stations and moving down said inclined playing surface towards said discharge passage are deflected along their paths of travel by engagement with said rigid obstacles.

2. The game as defined in claim **1** wherein said upper end portion of said playing surface has a generally simicircular periphery and said plurality of independent launching stations are located in arcuate spaced relation to each other in the portion of said peripheral barrier wall extending along said semi-circular upper end portion of said playing surface, whereby said tops are adapted to be independently launched at said respective launching stations along angularly related paths of travel.

3. The game as defined in claim **2** wherein said peripheral barrier wall has a plurality of integral rigid obstacle wall portions extending inwardly thereof into said playing surface.

4. The game as defined in claim **3** wherein said rigid obstacles extending upwardly from said playing surface comprise a plurality of frustoconical members located in spaced relation to each other on said surface and at least two chevron-shaped wall members whose apices are directed towards the upper end of said playing surface.

5. The game as defined in claim **4** wherein the upper portions of said frustoconical members are fluted at a height commensurate with the height of outwardly extending portions of the tops for engagement therewith.

6. The game as described in claim **4** wherein said inclined playing surface, peripheral wall and rigid obstacles are integrally formed in a one piece plastic construction.

7. The game as described in claim **6** wherein said supporting means comprises at least two leg members operatively connected to said playing surface at the upper end thereof to support said surface in said inclined configuration.

8. The game as defined in claim **6** wherein each of said tops includes a supporting stem and said launching stations each comprise a flat shoulder formed in said peripheral wall and extending outwardly from said playing surface in substantially parallel spaced relation to said surface, said shoulder constituting a launching platform upon which the stem of a top is seated during initiation of spinning thereof.

9. The game as defined in claim **8** wherein said peripheral wall has a pair of spaced arcuate wall portions adjacent each of said launching platforms, defining an opening therebetween through which said means for spinning a top on the launching platform extends during initiation of spinning.

10. The game as defined in claim **9** wherein the stems of each of said tops has an enlarged annular boss formed thereon cooperating with the uppermost of said arcuate wall portions when its associated top is on said launching platform to hold said top in a vertical configuration during the initiation of spinning thereof.

11. The game as defined in claim **10** wherein each of said top stems has an annular spur gear formed thereon below said annular boss and said means for initiating launching comprises an elongated rack gear.

12. The game as defined in claim **4** wherein said peripheral wall at the lower end portion of said playing surface includes a pair of converging wall portions having spaced end portions defining said discharge passage and opening towards said upper end portion of the playing surface.

13. A top game comprising a relatively flat inclined playing surface having opposed upper and lower end portions, a peripheral barrier wall extending upwardly from said surface and having a plurality of independent top launching stations formed intergrally therein at the upper end portion of said playing surface and a discharge passage formed therein at the lower end thereof, said upper end portion of said playing surface having a generally semicircular periphery and said plurality of independent launching stations being located in arcuate spaced relation to each other in the portion of said peripheral barrier wall extending along said semicircular upper end portion of said playing surface, whereby said tops are adapted to be independently launched at said respective launching stations along angularly related paths to travel; a plurality of rigid obstacles extending upwardly from said playing surface, said rigid obstacles comprising a plurality of frusto-conical members located in spaced relation on said surface and at least two spaced chevron shaped wall members whose apices are directed towards the upper end portion of said playing surface, whereby tops launched onto said playing surface from said spaced independent launching stations move from the upper end portion of the playing surface to the lower end portion thereof for discharge through said passage and are deflected in their path of travel by said obstacles to achieve a random discharge of tops from said playing surface; said peripheral barrier wall having a plurality of integral obstacle wall portions extending inwardly thereof into said playing surface; and a plurality of tops having radially outwardly extending portions, and the upper portions of said frusto-conical members being fluted at a height commensurate with the height of the outwardly extending portions of the tops for engagement therewith.

14. The game as defined in claim **13** wherein said peripheral wall at the lower end of said playing surface includes a pair of converging wall portions having spaced end portions defining said discharge passage and opening towards said upper end of the playing surface.

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