Jan. 10, 1956 F. E. COOK 2,729,914

MARBLE RUNWAY

Filed Aug. 18, 1952

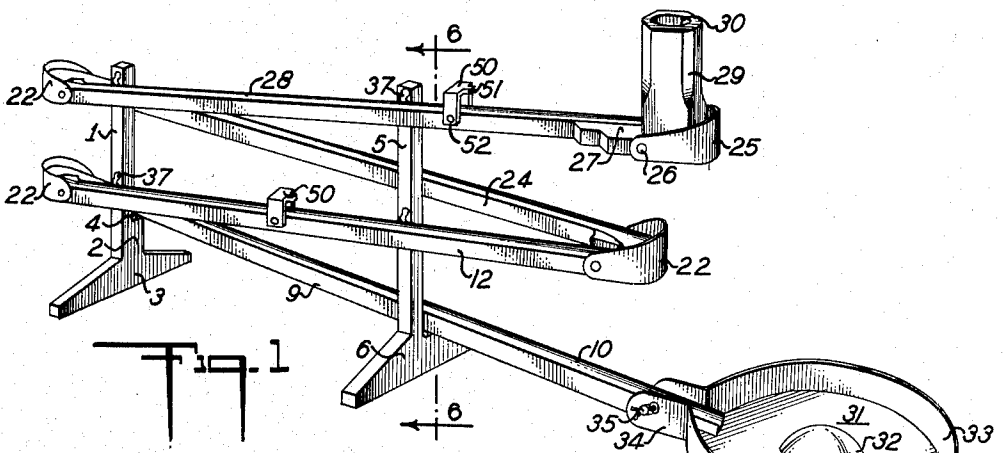


Fig. 1

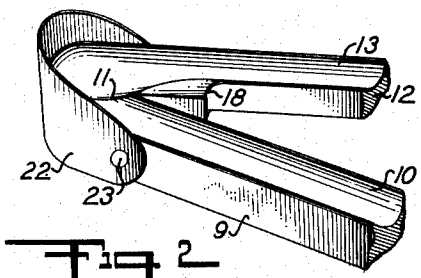


Fig. 2

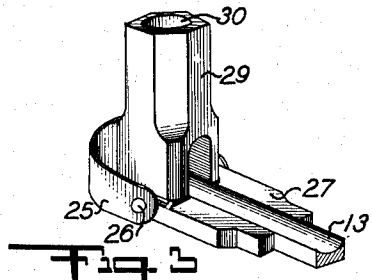


Fig. 3

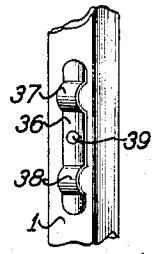


Fig. 4

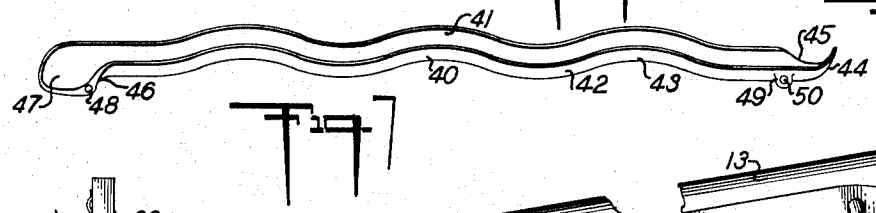


Fig. 7

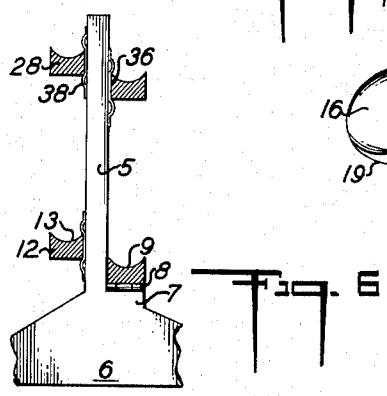


Fig. 6

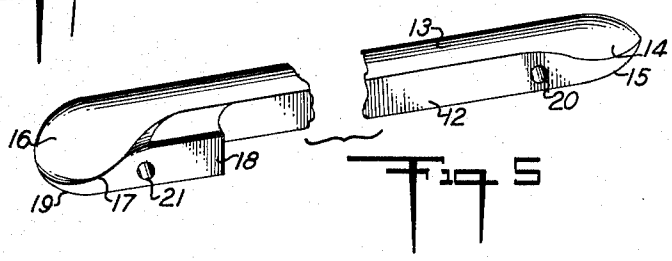


Fig. 5

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MARBLE RUNWAY

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1 Claim. (Cl. 46—43)

The present invention is concerned with entertainment apparatus and is more particularly directed to a device primarily conceived for the amusement of children.

The principal object of the invention is to provide an apparatus which can be used by children, especially younger children of the ages from about two to six years old, for their entertainment and education.

A further and important object of the invention is to provide an amusement device which is very simple to set up for use and which can be operated and enjoyed by children while at the same time capable of folding into a compact position for ease in storing the same.

Another important object of the invention is to provide an amusement device employing marbles or similar small rounded objects which will roll down hill showing the effects of gravity thereon and ring a bell at the end of their travel to entertain the users thereof and which device can be easily and economically produced to render the same commercially desirable.

Further objects of the invention will be in part obvious and in part pointed out in the following description of the accompanying drawing, in which:

Fig. 1 is a side perspective view looking downwardly upon one form of device according to the present invention.

Fig. 2 is an enlarged detail perspective view of the end connection of two runners used in the present device.

Fig. 3 is an enlarged detail view of the starting gate.

Fig. 4 is an enlarged perspective view of a runner supporting catch as mounted on an upright.

Fig. 5 is an enlarged perspective view looking down from the side upon one of the runners of the present device.

Fig. 6 is a detail cross-sectional view taken on line 6—6 of Fig. 1; and,

Fig. 7 is a perspective view looking down from the side upon a modified form of runner.

Referring now more in detail to the accompanying drawing, wherein like and corresponding parts are designated by similar reference characters, numeral 1 refers to an upright having a stepped portion 2 and laterally extending base 3. Said stepped portion 2 has a hinge 4 mounted on the shoulder thereof.

A second upright 5 is also employed and this upright has a laterally extending base 6 with a stepped portion 7 on one side of upright 5 with a hinge 8 mounted on the shoulder of step 7.

A runner 9 which consists of an elongated relatively narrow member having a longitudinally extending trough 10 formed in the upper face thereof with a laterally extending channel 11 formed in the end portion of runner 9 and extending contiguously from trough 10. This runner 9 is mounted upon and connected to both of said hinges 4 and 8 of the uprights 1 and 5.

A second runner 12 also has an elongated relatively narrow configuration with a trough 13 also formed in its upper face. As best shown in Fig. 5, runner 12 also has a lateral channel 14 in one end portion thereof with

this end 15 having a rounded bottom portion. The opposite end of runner 12 has a second laterally extending channel 16 which is extended as at 17 due to the shoulder 18 extending from the side of said runner. The bottom face of this end of runner 12 also is rounded as shown at 19. In addition, said runner has a pair of openings 20 and 21 formed therethrough, each at an opposite end thereof.

A U-shaped shield 22 extends around the adjacent ends of runners 9 and 12 and is fastened to said runners by a pin 23. A similar shield connects the opposite end of runner 12 to an end of a similar runner 24. The opposite end of runner 24 is also connected to an additional runner 28 having a shield 25 positioned around the end thereof which is fastened thereto by a drive pin 26. Runner 28 has a widened end portion 27 upon which is hingedly mounted a starting gate 29 having an enlarged L-shaped passageway 30 extending from the top thereof and opening in line with trough 13 of runner 28.

An annular plate 31 having a bell 32 mounted in the center thereof has an annular retaining wall 33 mounted around the periphery thereof with arms 34 pivotally connected to the free end of runner 9 by a pin 35.

Each upright 1 and 5 has a plurality of spring retaining plates 36 mounted on the opposite sides of said upright. Each plate has a flat center section with bent bulged portions 37 and 38, each in an end portion thereof, and fastened to said uprights by a drive pin 39 through an opening in said flat section. The length of plate 36 is sufficient for receiving the side of one of said runners between said bulges.

In Fig. 7 there is shown a modified form of runner which has a sinuous longitudinally extending configuration. That is runner 40 has alternating raised curved portions 41 and depressed curved sections 42 as well as longitudinally curving side sections 43. The runner has a semi-circular configuration with the bottom end portion rounded as at 44 and a laterally extending channel 45. The opposite end of said runner has a laterally extending shoulder 46 in which extends a lateral channel 47 and a pin opening 48. A lug 49 having a pin opening 50 is also provided in the opposite end thereof.

To use the present apparatus, uprights 1 and 5 are pivoted to a vertical position and runners 12, 24 and 28 lifted upwardly until each snaps over projection 38 of the locking catch 36 until each runner is in the position shown in Fig. 1. Gate 29 is pivoted to an upright position, also as shown in that figure.

At that time the player can place a plurality of rounded objects such as marbles or the like in bore 30 of gate 29 whereupon the marbles in turn will pass into the troughs 13 and continue down curving behind the guards 22 and through the lateral channels to the trough of the next runner and so on down until the marbles strike bell 32 for ringing the same thereby affording amusement to the player and also an appreciation of the effect that gravity has upon a rounded object on a slanting surface.

It is to be noted that shoulders 18 and 46 are of sufficient width to space the runners, for example 9 and 13, sufficiently apart for the uprights 1 and 5 to extend therebetween and also the guards 22 as well as the lateral channels 11 providing a guide for directing the marbles from one runner to the next when making the sharp turns created by the zigzag positioning of the series of runners.

For additional amusement there is provided a pair of stops 50 of a U-shaped configuration and having a projection 51 of a size for extending into and across the trough 13. These stops have their legs extending on each side of their respective runner and are pivotally

connected thereto by drive pins **52**. The operator by pivoting one or both of said stops can block the troughs causing the marbles to back up therebehind. Upon pivoting the stop upwardly, the marbles are released in a row which adds excitement to the amusement of the operator.

For storing the apparatus, gate **29** is pivoted so that it lies down upon end runner **28**, while plate **31** is pivoted underneath the opposite end runner **9**. Uprights **1** and **5** are then pivoted beneath said runner **9**. The runners **12**, **24** and **28** are released from their position upon said uprights, being moved over bulges **37** of the respective locking plates **36** due to the resiliency of said plate and the runners are then positioned with runner **24** on top of runner **9** and runner **12** along side of runner **9** with runner **28** superimposed thereon.

In lieu of the straight runners shown in Fig. 1, a sinuous runner **41** such as shown in Fig. 7 can be substituted therefor, whereupon the marbles will be given an up and down movement as they travel downwardly to plate **31**. To substitute a runner **41** for runners **12** and **24**, it is merely necessary to extend guards **22** around the adjacent ends of a pair of runners **41** and extend pins **23** through openings **48** and **50** of said runners.

The above entitled device is capable of considerable modification and such changes thereto as come within the scope of the appended claims are deemed to be a part of the invention.

I claim:

A collapsible amusement device comprising a plurality of elongated runners connected together at their adjacent ends with adjacent runners extending in oppositely inclined direction, each of said runners having a longitudinally extending trough provided in the top surface thereof, the adjacent connected ends of said runners having a shoulder on one end of one of the adjacent ends, said ends having laterally extending curved troughs therein, said laterally extending troughs being in communication with each other, a plurality of pins each extending through the adjacent end portions of said runners for pivotally connecting said runner end portions together, the runners being spaced apart by means of said shoulders, a pair of standards extending between said spaced apart runners, a plurality of spring plates positioned along said standards and having outwardly extending bulged portions whereby said runners can move over said plates and, when desired, be supported in playing position by said bulged portions extending above and below said runners, said standards being pivotally connected to the lowermost of said runners for folding to extend longitudinally with said runners in their collapsed position, a plate pivotally mounted on the free end of the lowermost end runner, a bell mounted on said plate and rounded objects for rolling down said troughs and onto said plate against said bell.

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