

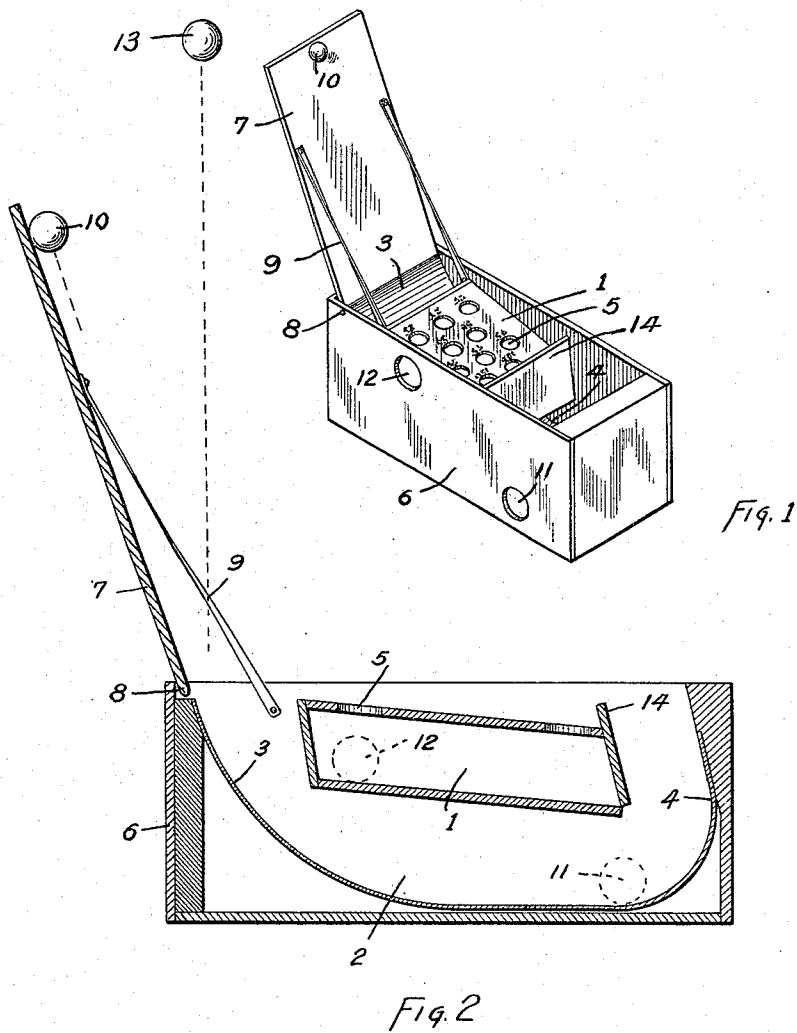
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TOY.

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TOY.

1,176,274.

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To all whom it may concern:

Be it known that I, EARL NORWOOD CLARK, a citizen of the United States, residing at Middletown, Butler county, Ohio, have invented certain new and useful Improvements in Toys, of which the following is a specification.

This invention, pertaining to toys, relates to a toy in which the gravity of a falling ball causes it, under varying circumstances, to move through various lengths of pathway determining its final resting point and I have given to this toy the very appropriate name of "loop the loop."

The invention will be readily understood from the following description taken in connection with the accompanying drawing in which:—

Figure 1 is a perspective view of a structure illustrating my improved toy; and Fig. 2 a vertical longitudinal section thereof. Fig. 1 is on a smaller scale than Fig. 2.

In the drawing:—1, indicates a closed box whose top is preferably somewhat inclined; 2, a curved passageway extending about the ends and floor of the box; 3, the floor of the curved passageway at the entry end of the passageway; 4, the outer wall of the curved passageway at its exit end, this wall being inclined somewhat inwardly toward box 1; 5, series of holes in the top of box 1, these holes being provided with symbols or numerals indicating game values; 6, the outer general structure or outer box inclosing and giving support to box 1 and the floor of the curved passageway; 7, a lid adapted to close the top of the outer box, this lid being preferably hinged at the entry end of the curved passageway; 8, the hinge uniting the lid to the outer box; 9, stays connected with the outer box and the lid and determining the extent to which the lid shall open past the vertical plane; 10, a ball, a marble for instance, shown in one position of release, this marble being of a size adapted to pass freely through the curved passageway and through any one of the holes 5; 11, a hole leading outwardly from the curved passageway and of a size to permit the marble to freely pass out sideways from the curved passageway; 12, a similar hole leading outwardly from the box 1; 13, the marble shown in another position of release; and 14, an upwardly projecting ledge at the tail end of the top of box 1 to prevent the marble from rolling

from the top of the box back into the discharge end of the curved passageway.

The procedure in using this toy is to drop a marble into the receiving throat at the end of the curved passageway and then note what becomes of the marble, the game consisting of successes of additive values or of failures of subtractive values, though the toy lends itself to quite a variety of systems of counting. In using the toy, while the element of luck is perhaps the major factor, skill has plenty of opportunity for exercise. Success in using the toy, in the manner preferred by me, consists in having the dropped marble find its way into the box 1 and the value of that success is to be measured, among other things, by the designated value of that one of the holes 5 through which it drops into the box. First, if the marble be dropped into the receiving throat of the curved passageway it may go down and stop in the lower part of the passageway. This should be called a failure. Second, the marble may proceed through the curved passageway and turn inwardly over and onto the top of the box and go down into the box through one of the holes 5. This is a success and the value of the success may be determined by the designated value of the hole through which it passes. Third, the marble may pass through the curved passageway and up out of it and entirely over the box and down into the curved passageway and stop, constituting another kind of failure. Fourth, the marble may go entirely through the curved passageway and entirely over the box and into the curved passageway again and out of the curved passage and onto the top of the box and into the box through one of the holes therein. Here is another case of success in which the marble has made a complete circuit around the box. This might be considered a success of higher value than in the case where the marble did not circle entirely over the box. Fifth, the marble might take the same general path entirely around the box but fetch up in the curved passageway. This would be another case of failure. Sixth, the marble may make more than one complete circuit entirely around the box and fetch up in the box or in the passageway under the box, scoring a success in the first-mentioned case and a failure in the last-mentioned case.

The marble which has lodged in the

curved passageway may be discharged from the passageway through hole 11, and the marble which has lodged in box 1 may be discharged therefrom through hole 12 by tipping the structure properly sidewise. Lid 7 has a multiple office, viz. to close the top of the outer box when the apparatus is not in use, and to serve as a guide, if desired, when the marble is dropped into the receiving throat from position 10, and to serve as a guide and fender for a marble which has passed completely over the box and again seeks the entry throat of the curved passageway. If the marble be released from the position indicated at 10 it will be correctly guided to the entry throat of the curved passageway but it will not have acquired a very great momentum by the time it reaches the passageway. If the marble be released from the position indicated by 13 it will, in reaching the curved passageway, have acquired considerable more momentum than in the former case, and position 13 may be assumed as being at any desired distance above the apparatus, say as far up as the hand of the player can reach. It is the height from which the marble is dropped that largely determines the number of loops in its path around the box and it is at this point that the skill of the player enters, though skill cannot determine whether, in case the marble makes a complete loop around the box it will fetch up within the box or in the curved passageway.

Any number of players may use this toy, taking their turns. As a mere example let it be assumed that the player first scoring five thousand points wins the game and that the rule of count is as follows:—If the marble stops without leaving the curved passageway the count is zero. If the marble rises from the curved passageway and goes directly to the box through one of the holes, the count is the designated value of the hole. If the marble passes over the box and goes the second time into the curved passageway and stops therein twenty-five will be subtracted from the count. If the marble loops around the box and rises from the curved passageway the second time and goes into the box it will count double the designated value of the hole through which it drops. If the marble comes out of the curved passageway the third time and enters the box it will count triple the value of the hole through which it reached the box. If the marble goes out of the passageway the third time and lodges in the curved passageway instead of going to the box, seventy-five will be subtracted from the count. In this way extra values may be given to the holes through which the marble drops to the box according to the number of loops the marble has made around the box before going to the hole and, corre-

spondingly, extra subtractions may be made from the count when the marble after making several loops around the box lodges in the third passageway instead of reaching the box.

While it is obvious that the perforated top of the box is an important part of the apparatus, it will be apprehended that the box itself is of value in catching the successful marbles, notwithstanding the fact that if the top only of the box were present the same counts could be made and the marble recovered through hole 11. It often happens that a marble rising out of the curved passageway strikes the top of the box, or what I will call the perforated tablet, and seeks to roll down backward into the curved passageway without going into the box through one of the holes. It is the object of ledge 14 to prevent this and, while possibly facilitating the finding of one of the holes by the marble, to retain the marble above the perforated tablet in case it does not pass through one of the holes.

The side walls of outer box 6 which form also the side walls of the curved passage 2 and the box 1 are of distinct advantage in preventing the marble from moving out of the structure sidewise in the course of its travel through the structure, but I find in practice that with ordinarily careful operation with the toy the marble seems inclined, in traveling through its path, to maintain that path in a substantially vertical plane so that the side walls of the outer box are not often called upon for the performance of any office other than to permit the retention of several marbles.

The construction will manifestly lend itself to various modifications and the particular construction set forth is to be considered merely as an exemplification. I have sought to set forth the principle of my invention and the best mode in which I at present contemplate embodying that principle.

I claim:—

1. A toy comprising, a tablet provided with a series of perforations through it, and a curved passageway disposed below and at each end of the tablet, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

2. A toy comprising, a tablet provided with a series of perforations through it, a box disposed below the tablet, and a curved passageway disposed below and at each end of the box and tablet, the curved passageway and the perforations in the tablet being

of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein and into said box or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

3. A toy comprising, a tablet provided with a series of perforations through it, a curved passageway disposed below and at each end of the tablet, and an outer box serving to support the side edges of the tablet and to form side walls to the curved passageway, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

4. A toy comprising, a tablet provided with a series of perforations through it, and a curved passageway disposed below and at each end of the tablet and provided with a side outlet, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, and whereby a ball lodging in the curved passageway may be withdrawn from the side thereof, combined substantially as set forth.

5. A toy comprising, a tablet provided with a series of perforations through it, a box disposed below the tablet and provided with a side outlet, and a curved passageway disposed below and at each end of the box and tablet, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein and into said box or pass over the tablet and again enter the curved passageway, and whereby a ball passing into the box through a perforation in the tablet may be removed from the side of the box, combined substantially as set forth.

6. A toy comprising, a tablet provided with a series of perforations through it, a curved passageway disposed below and at each end of the tablet, and a deflecting guide extending upward at one of the end walls

of the curved passageway, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

7. A toy comprising, a tablet provided with a series of perforations through it, a curved passageway disposed below and at each end of the tablet, and a lid hinged at one end wall of the curved passageway and adapted to serve as a cover over the curved passageway and the perforated tablet or to be turned upward to serve as a deflecting guide, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

8. A toy comprising, a tablet provided with a series of perforations through it, a curved passageway disposed below and at each end of the tablet, and a ledge projecting upwardly at one end of the tablet, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

9. A toy comprising, a declined tablet provided with a series of perforations through it, a curved passageway disposed below and at each end of the tablet, and a ledge projecting upwardly at the lower end of the tablet, the curved passageway and the perforations in the tablet being of such dimensions as to permit the free passage of a ball, whereby a ball dropped into one end of the curved passage may go through said passage and onto the tablet and through a perforation therein or pass over the tablet and again enter the curved passageway, combined substantially as set forth.

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Witnesses:

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