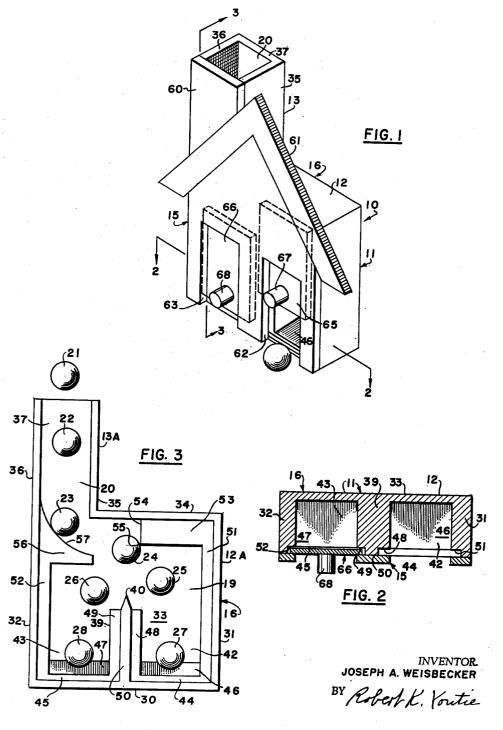
FREE-CHOICE AMUSEMENT AND EDUCATIONAL DEVICE

Filed Aug. 21, 1963

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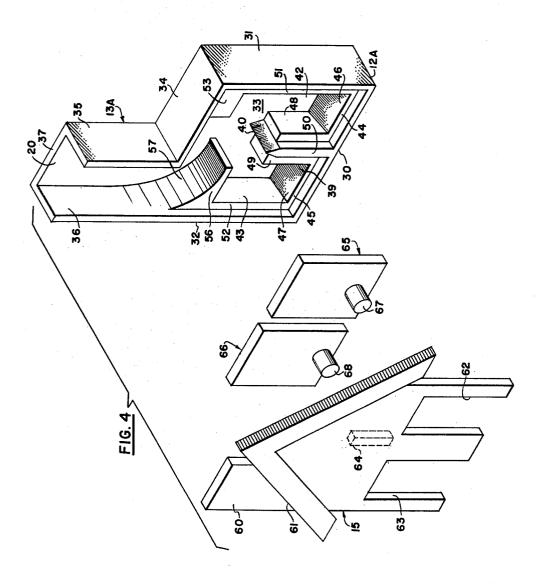


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FREE-CHOICE AMUSEMENT AND EDUCATIONAL DEVICE

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3,190,656 FREE-CHOICE AMUSEMENT AND EDUCATIONAL DEVICE Joseph A. Weisbecker, 1220 Wayne Ave., Eriton, Cherry Hill, N.J. Filed Aug. 21, 1963, Ser. No. 303,526 7 Claims. (Cl. 273—138)

This invention relates generally to playthings, in the nature of toys, games and educational devices, and is especially concerned with a unique free-choice apparatus capable of utilization in many varied applications.

It is an important object of the present invention to provide a free-choice apparatus adapted for use and complete operation even by relatively small children, and which is highly attractive to inherent human curiosity, wherein the results of operation are entirely concealed from the operator and others and obtaining knowledge of the results involves elements of chance and requires exercise of an individual's freedom of choice.

It is another object of the present invention to provide a free-choice apparatus of the type described which may be utilized for entertainment as a game, or as the chance device for a game, which may be employed merely as a toy, and which may also be utilized as an 25 attention-absorbing educational device.

It is still another object of the present invention to provide a free-choice apparatus having the advantageous characteristics mentioned in the preceding paragraphs, which is extremely simple in construction and operation, 30 durable and reliable throughout a long useful life, and which can be economically manufactured for sale at a reasonable price.

Other objects of the present invention will become apparent upon reading the following specification and 35 referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the con- 40 struction hereinafter described, and of which the scope will be indicated by the appended claims.

In the drawings:

FIGURE 1 is a front perspective view showing a device constructed in accordance with the teachings of 45 the present invention;

FIGURE 2 is a horizontal sectional view taken generally along the line 2-2 of FIGURE 1;

FIGURE 3 is a sectional elevational view taken generally along the line 3-3 of FIGURE 1, but with parts 50 removed; and

FIGURE 4 is an exploded perspective view of the components of FIGURE 1.

Referring now more particularly to the drawings, and specifically to FIGURE 1 thereof, the free-choice ap- 55 cal rib 50 having a forward surface substantially flush paratus is there generally designated 10, and includes an enclosed housing 11. The housing 11 may assume the external configuration of a toy house, as illustrated, or other desired appearance, and is formed with a generally rectangular or boxlike body part 12, and a tubular 60 part 13 upstanding from the body part and simulating a chimney. In practice it may be found advantageous to fabricate the housing 11 of complementary front and rear sections, respectively designated 15 and 16. The front section 15 may assume the form of a generally vertical front wall, while the rear section 16 may be of a hollow or recessed, forwardly opening construction, the hollow thereof being effectively closed by the front wall or section 15.

More specifically, the rear section 16 is shown in elevation in FIGURE 3, and includes a lower, generally rectangular or boxlike body part 12a, and an elongate

part 13a upstanding from the body part. The rear-section body part 12a is provided with a forwardly opening interior hollow 19, while the upstanding rear part 13a is also formed with a forwardly opening interior hollow 20. The hollow 20 extends longitudinally of the upstanding part 13a, opening upwardly through the upper end thereof and downwardly through the lower end into the interior hollow 19. A plurality of rollable pellets or balls 21-28 are shown in various stages of gravitational travel downward through the upstanding part 13a and lower part 12a.

The lower-rear-section part 12a may include a generally horizontal bottom wall 30 and a pair of opposite end walls 31 and 32 upstanding from opposite ends of the bottom wall 30. A rear wall 33 upstands from the rear edge of the bottom wall 30, extending laterally between the rear edges of end walls 31 and 32; and, a top wall 34 extends horizontally from the upper edge of end wall 31 toward and terminates at the upstanding part 13a. The upstanding part 13a may include a pair of spaced upstanding side walls 35 and 36, the former upstanding from the terminal edge of top wall 34, and the latter upstanding from and in vertical alignment with the end wall 32. Extending laterally between the rear edges of side walls 35 and 36 is a rear wall 37, as a generally coplanar extension of the rear wall 33 and terminating at the upper edges of side walls 35 and 36. Thus, the upstanding upper part 13a is offset laterally from the vertical center line of the lower part 12a, being substantially flush with one end of the lower part.

Interiorly of the lower part 12a, say medially between the end walls 31 and 32, is a forwardly and rearwardly extending inner wall 39 upstanding from the bottom wall 30 and terminating at its upper edge 40 spaced considerably below the top wall 34. Further, the upper edge 40 of partition or wall 39 may taper upwardly, as a knife edge, for a purpose appearing presently. Further, the partition or wall 39 subdivides the lower region of hollow 19 into a pair of laterally spaced, forwardly opening chambers or regions 42 and 43.

The lower wall 30 has its forward edge cut away or recessed adjacent to the interior chambers 42 and 43, so as to define forwardly facing shoulders 44 and 45. Further, the upper surfaces of the lower wall 30, interiorly of the chambers 42 and 43 are configured to slope or decline forward, as at 46 and 47.

The inner wall or partition 39 has its forward edge cut away or recessed along opposite sides thereof to define a pair of forwardly facing, generally vertically extending surfaces or shoulders 48 and 49. The shoulders or surfaces 48 and 49 are generally coplanar with and continuous extensions of shoulders or surfaces 44 and 45, respectively, and leave of the material of wall 39 intermediate the shoulders 48 and 49 a generally vertiand continuous with the forwardmost surface of the lower wall 30.

The end wall 31 is similarly recessed or cut away at its front edge to define a forwardly facing, vertically extending shoulder or surface 51 substantially flush and continuous with the shoulder surface 44, while the end wall 32 is also recessed or cut away at its front edge to form a vertically extending, forwardly facing shoulder or surface 52 substantially flush and continuous with the shoulder surface 45. The remaining, forwardmost surfaces of the end walls 31 and 32 are respectively substantially flush and continuous with the forwardmost remaining edge surface of lower wall 30, extending upward from opposite ends of the latter.

The upper wall 34 may be similarly recessed at its front edge to define a forwardly facing shoulder or surface 53 as a substantially flush continuation of the shoul-

der surface 51. It will be observed however that the upper wall 34 is cut away at an interior location 54 spaced from the end wall 31 so that the shoulder surface 53 terminates approximately medially between the end walls 31 and 32. Further, the interior cutout 54 may provide a suitable obstruction or corner 55, for a purpose appearing fully hereinafter.

Extending inward from the upper interior region of end wall 32, beneath the hollow 20 of upstanding part 13a may be an internal projection of boss 56 having a con- 10 cavely curved upper surface 57.

The front section or wall 15 is best seen in FIGURE 4 and may have a substantially planar rear surface for facing engagement with the continuous forwardmost edge of the rear section 16. The front section 15 substantially completely closes the forwardly opening recesses 19 and 20 of the rear section 16, including an upright extension 60 across the front of upstanding part 13a. The front wall or section 15 may have its upper region configured to represent the roof of a house, as at 61, and is formed in its lower region with a pair of laterally spaced cutouts 62 and 63 arranged in a horizontal row and each extending upward through the lower edge of the front section. The cutouts or openings 62 and 63 are located respectively in front of the hollow regions 25 or chambers 42 and 43. On the rear surface of the front section 15 may be a generally vertical guide or boss 64 located above and between the cutouts or openings 62 and 63.

In its assembled relation, the front section 15 is suitably secured by any suitable means in facing, covering relation with the rear section 16, as in FIGURES 1 and 2. It will there be observed that a pair of closures 65 and 66 are respectively engaged in closing relation with the chambers 42 and 43. In particular, the closures 55 and 56 may each include a generally flat, rectangular plate having on its external face, at the lower region thereof, an external projection or knob for manual actuation of the respective closure. Such knobs are shown at 67 and 68. The closure 65 is slidably located between the front section or wall 15 and the forwardly facing shoulders 44, 48 and 51 bounding the lower hollow region 42. As thus mounted, the closure 65 is slidable from a rest position seated on the lower wall 30 in closing relation with the opening 62 and an open elevated 45position, as illustrated in FIGURE 1. In this elevated position the closure 65 may be moved upward into the space between the front section or wall 15 and the forwardly facing shoulder 53, being restrained to vertical sliding motion between the end wall 31, and the parti- 50 tion 39, as well as the lug 64.

The closure 66 is similarly slidably mounted between the front section or wall 15 and the forwardly facing shoulders 45, 49 and 52, being slidable from a lower position in closing relation with the cutout 63 and an 55 open, upper position between the front section 15 and internal projection 56. The closure 66 is also constrained to vertical opening and closing movement in the same manner as the closure 65. Of course, the closures 65 closing relation with their respective openings 62 and 63.

In use, a pellet may be dropped downward through the upper opening at the upper end of upright part 13, passing gravitationally through the hollow 20 to roll downward on the internal projection 56 into one of the cham- 65 bers 42 and 43. Thus, it will be apparent that the vertical hollow 20 provides a passageway, and that the arcuate projection 56 combines with the adjacent structure to define a chute communicating between the passageway 20 and hollow 19. Further, the hollow 19 is 70 subdivided or bifurcated by the partition 39 into branches each communicating from the passageway 20 to a respective lower chamber 42 and 43.

The pellets 21, 22 and 23 represent successive positions of pellet movement along the gravitational course 75 lower openings being arranged in a horizontal row.

of travel through the passageway 20, while the pellet 24 illustrates one mode of gravitational travel into abutting engagement with the obstacle or corner 55. Further, pellets 25, 26, 27 and 28 illustrate divergent paths of travel into the separate branches and lower regions or chambers 42 and 43. The precise course of travel of any particular pellet is highly unpredictable, being dependent on many uncontrollable physical characteristics, both of the pellet and the instant apparatus 10.

In operation, the important element of free choice enters after a pellet has been dropped into the upper opening of part 13 and comes to rest in one of the chambers 42 and 43. As the normally closed closures or doors 65 and 66 are opaque or impermeable to light, as is the remaining structure, there is no visual access to the interior chambers 42 and 43. In this regard, note that visual access even through the upright part 16 is precluded by the arrangement of projection 56 and partition 39. When the free choice has been made, the selected door or closure 65 or 66 is raised or opened by manual actuation of the appropriate knob 67 or 68. Upon opening of the proper closure, the contained pellet automatically rolls forward and outward from the forwardly declining bottom-wall surface 46 or 47.

While the above-described structure may be economically fabricated of plastic, as by injection molding or the like, it is appreciated that other materials and methods of manufacture may be employed, if desired.

From the above basic description of operation, it will now be appreciated that the instant device readily lends itself to utilization as a chance mechanism, as well as a highly absorbing educational device, especially in the teaching of simple arithmetic and deduction processes. The device may also be employed as a game in itself in many different ways. For example, several players may each start with the same number of balls, successively dropping a ball into the upper-end opening and attempting by free choice to ascertain which lower-end opening 62 or 63 contains the ball. Upon a correct choice the player keeps the ball, and otherwise loses the ball. Of course, there are many variations.

As a chance mechanism, the instant device may be provided with several receiving chambers in addition to those shown at 42 and 43 to increase the variety of results. Also, different types of pellets, say characterized by different color, may be employed to further augment the possible number of alternatives, say to determine the moves in a board game or the like.

From the foregoing, it is seen that the present invention provides a free-choice apparatus which fully accomplishes its intended objects and is well adapted to meet practical conditions of manufacture and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims. What is claimed is:

1. A free-choice apparatus comprising an enclosed and 66 are both normally gravitationally maintained in 60 housing of light-impermeable material concealing the interior thereof and having an upper opening and a plurality of lower openings, said housing being provided with an internal passageway extending downward from said upper opening and having a plurality of branches communicating with respective lower openings, said passageway and branches being configured for gravitational travel of pellets from said upper opening to said lower openings in a random relation, a plurality of light-impermeable openable closures respectively associated with said lower openings, and manually actuable means for selectively opening said closures for chance location of pellets in said lower openings.

2. A free-choice apparatus according to claim 1, said

- 3. A free-choice apparatus according to claim 1, said lower openings each having a bottom wall sloping downward toward the respective closure, whereby pellets are rollable on said bottom walls for exit upon opening of said closures.
- 4. A free-choice apparatus comprising an enclosed housing of light-impermeable material concealing the interior thereof and having an upwardly facing upper opening and at least a pair of horizontally facing lower openings, said housing being provided with an internal passageway ex- 10 tending downward from said upper opening and having branches diverging to respective lower openings, a lateral projection internally of said housing extending across and spaced below said upper opening to define a chute communicating with said branches and obstructing visual access through said upper opening, said passageway and branches defining random courses of gravitational travel for rollable pellets between said upper opening and an unknown one of said lower openings, a plurality of lightimpermeable openable closures respectively associated with said lower openings, and manually actuable means for selectively opening said closures for chance location of a pellet in said unknown lower opening.

5. A free-choice apparatus according to claim 4, said lower openings each having a bottom wall sloping downward toward the respective closure, whereby pellets are rollable on said bottom walls for exit upon opening of said closures.

6. A free-choice apparatus comprising an enclosed housing having an upper opening and a plurality of lower openings, said housing being provided with an internal passageway extending downward from said upper opening and having a plurality of branches communicating with respective lower openings, said passageway and branches being configured for gravitational travel of pellets from said upper opening to said lower openings in a random relation, and a plurality of light-impermeable openable closures respectively associated with said lower openings,

said closures being selectively operable for chance location of pellets in said lower openings, said closures being slidably mounted in said housing for opening-and-closing movement, and hand-actuable means carried by said closures externally thereof.

7. A free-choice apparatus comprising an enclosed housing having an upwardly facing upper opening and at least a pair of horizontally facing lower openings, said housing being provided with an internal passageway extending downward from said upper opening and having branches diverging to respective lower openings, a lateral projection internally of said housing extending across and spaced below said upper opening to define a chute communicating with said branches and obstructing visual access through said upper opening, said passageway and branches defining random courses of gravitational travel for rollable pellets between said upper opening and an unknown one of said lower openings, a plurality of lightimpermeable openable closures respectively associated with said lower openings, said closures being selectively openable for chance location of a pellet in said unknown lower opening, said closures being slidably mounted in said housing for upward movement away from said bottom walls and downward closing movement toward said bottom walls, and hand-actuable means carried by said closures externally thereof.

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