Nov. 3, 1970 B. GOLDBERG 3,537,707

MANUALLY OPERATED PROJECTILE THROWING DEVICE FOR GAMES

Filed May 13, 1968

FIG. 2

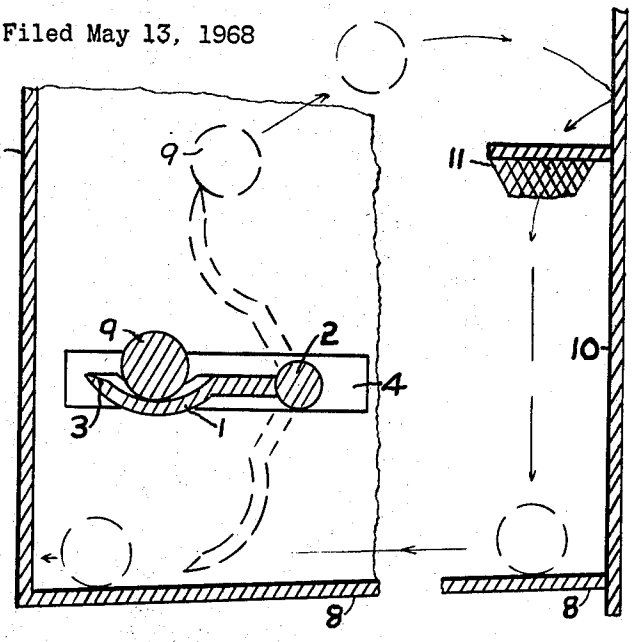


FIG. 3

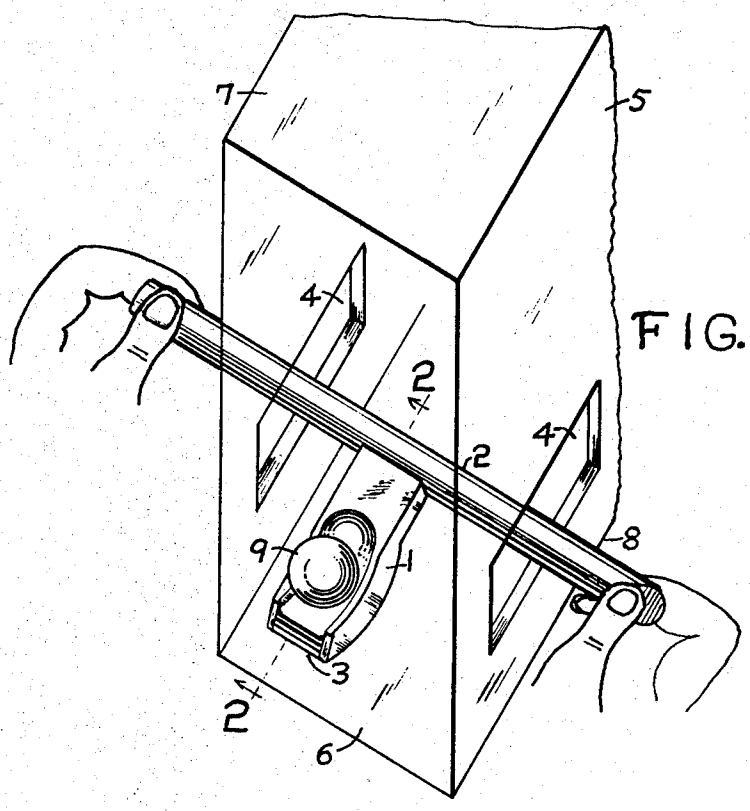


FIG. 1

INVENTOR.

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MANUALLY OPERATED PROJECTILE THROWING DEVICE FOR GAMES

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ABSTRACT OF THE DISCLOSURE

A projectile throwing device for games wherein a projectile, such as a small ball, is projected toward a target. The device comprises a projectile thrower, operating in a transparent casing having: an open back for projectile flight therethrough; a bottom base, inclined for a projectile ball to roll down to the front wall of the casing; and elongated slots in the casing sidewalls for the thrower handle to project therethrough exteriorly, for manual operation thereof. The thrower is supported in the casing by its handle resting on the bottom of the slots. The slots are in elongated form to enable said handle, which is longer than the span between the casing sides, to be inserted therein; and to provide suitable space to move said handle to suitable positions and directions for aiming a projectile toward its target. The thrower is comprised of a holding member body formed with an elongated, shaft-like, handle extending across and beyond the sides at one end of the body; and a projectile-retaining, elongated, surface-recess extending from the opposite or throwing-end of said body, transversely toward the handle. The said recess is formed with a sloping lip at its throwing-end, for deflecting the path of a ball, being thrown, to a predetermined angle of departure of the ball from the thrower body, said angle being a factor in controlling the trajectory of the ball in flight. The mode of operating the device to pick up, aim, and throw the projectile, is as follows: With a projectile ball resting at the base and front wall in the casing, the player, holding the thrower handle ends, shifts the handle in the elongated slots so as to push the thrower body-recess lip against the lower part of the ball and said wall; then turns the handle to raise the thrower body up so that the ball rolls into said recess, to be held therein preliminary to being thrown; then shifts the handle to position the thrower into a desired direction of aim; then makes a quick turning-movement of the handle so that the thrower body turns with sufficient speed to throw the ball into space in the direction of whatever target it is aimed at. The device is adaptable for use with any of a variety of games of the character mentioned in the disclosure.

This invention relates to new and useful improvements in amusement game apparatus and more particularly to games in which a small ball or marble or other suitable projectile is propelled through space towards a target or goal.

One object of this invention is to provide entertaining action games that simulate, on a small scale, comparable objectives in games such as golf, basketball, skeeball, and other games where the projectile is propelled at least partly through space.

Another object is to provide novel manual means whereby the projectile can be picked up, aimed, and projected.

Another object is to provide helpful means whereby a player of these games may develop dexterity and skill and coordination of observation, mind, and muscles.

Other objects and advantages will become apparent in

the following descriptions and drawings which illustrate one practical form of my invention.

In the drawings, FIG. 1 is a perspective view of a portion of a casing in which a projectile thrower, holding a ball, is in a preliminary position to throwing the said ball.

FIG. 2 is a vertical sectional view on line 2—2 of FIG. 1.

FIG. 3 is a vertical sectional view showing an arrangement for basketball play and illustrating diagrammatically, in combination with FIG. 2, the method of play and correlation of the projectile thrower with the target or goal in games of this character.

In the drawings, numeral 1 designates a projectile holding member extending transversely from its handle, the round shaft 2. Holding member 1 is provided with a sloping lip 3. The combination of shaft and member can be integrally made of plastic, metal, or other suitable material by molding, stamping, or other suitable known manner. The ends of shaft 2 project through slots 4 of casing sides 5. The casing is a transparent enclosure with two sides 5, front 6, and top 7. The casing is open at the back which faces the target or goal. Base 8, in the casing, and attached thereto, is inclinded downward to front 6. The casing, including its base, may be of any suitable material, preferably plastics, and can be constructed in any suitable known manner. Numeral 9 designates a ball projectile, 10 a backboard which supports a basket-like goal 11.

The drawing of FIG. 2 illustrates how the projectile throwing device may be used. The projectile ball is picked up, aimed, and propelled by manipulating the projecting ends of shaft 2 with the player's fingers. When said ball 9 is laying on base 8 at front 6, holding member 1 is pushed under the ball, then, keeping the ball pressed against front 6, turned up so that the ball rolls into and is retained in said holding member's concavity. Shaft 2 is then shifted around in slots 4 to a desired position of aim and then ball 9 is projected from member 1 by means of a swift twirl of shaft 2.

When a ball is resting in the projectile holding member and said member is given a swift semi-circular twirl, centrifugal action forces the ball to move outwardly to the lip, of said member, from which it flies off at an angle that is partly dependant on the structure of said lip. Thus, the lip arrangement affects the height of the trajectory of flight of the ball. Were lip 3, in the drawings, constructed so that it protrudes into the said outwardly movement of the ball, the ball would be impelled to a lower trajectory than that which would result from the receding construction of the lip as shown in FIG. 2.

FIG. 3 illustrates a small-scale type of simulated basketball game that may be played with the projectile throwing device. the backboard 10 made of suitable solid material, preferrably of wood, to enable a ball to rebound after striking it, may be attached in known manner at the back of the enclosing casing of the projectile thrower, thus making a completely enclosed game unit in which the projectile ball will roll back after being thrown, down the inclined base 8 to front 6 where it will be in position again for being picked up with the said holding member 1.

Another arrangement of the game apparatus may be used, as illustrated in FIG. 3, where the backboard is made, in known manner, as a self-standing unit spaced at an open distance away from the projectile thrower. In this case, the ball, after being thrown, is picked up by hand and placed either directly into the projectile holding member 1, or placed on the inclined base 8 so it will roll to the front 6 and be in position again for pickup by the projectile holding member 1.

The projectile throwing device may be combined in known manner with other suitable types of games in which a projectile is thrown toward targets or goals.

While I have described and illustrated a preferred embodiment of my invention, it is to be understood that modifications may be made as desired without departing from the spirit and the scope of the invention as claimed.

What I claim is:

1. A projectile throwing device for games comprising: a projectile thrower having a holding member body formed with an elongated handle at one end of said body extending transversely a substantial length beyond both sides of the body, and a surface-recess, for holding a ball-shaped projectile, at the opposite or throwing-end of the body; in combination with a generally rectangular throwing-area chamber having a bottom-forming base attached to a generally transparent casing having an open back and comprising a front wall, and two sidewalls, each said sidewall having an aperture intermediate the periphery thereof, said two apertures aligned with each other for reception of said handle, said handle removably extending through said casing and apertures with its said member body inside the casing and its end portions outside thereof for manual operation, said handle being freely supported by the bottom edges of said apertures for slidable and rollable movement therein, said casing having a projectile pickup location, said location comprising the general vicinity at said front wall bottom in the casing.

2. The projectile thrower of claim 1, wherein said holding member body is formed with an elongated concave surface-recess extending medially from said body throwing-end transversely toward and terminating short of said handle.

3. The projectile thrower of claim 2, wherein said member body is further characterized by being provided with deflecting means for directing the projectile ball, being thrown, to a predetermined angle, relative to said body, of departure from said body, said means comprising a sloping lip structure at said throwing-end of said recess.

4. The combination of claim 1, wherein said sidewall apertures are in the form of generally horizontal elongated slots, said slots comprising means for supporting said elongated handle, by the bottom edges therein, in a range of varying span, and for defining an area wherein said slots permit manual shifting of said handle to a substantial distance toward said front wall for projectile pickup, or oppositely toward a target direction, and to be positioned in axially transverse or angular relations to said sidewalls.

5. The combination according to claim 1, wherein said base is inclined downwardly to said front wall, said incline comprising automatic means for a spheric ball projectile landing on said base to position itself at said front wall pickup location.

6. The combination of the projectile throwing device, as defined in claim 1, with at least one spherical ball for projectile function, a backboard attached to said casing at said open back and closing said open back, at least one target suitably mounted on said backboard for said ball to be thrown at, and automatic means to return said ball, after being thrown, to said pickup location, said means comprising said base having its surface inclined downwardly to said front wall.

7. A method of using the apparatus defined in claim 8, said method comprising the following procedure: with said ball resting at said pickup location, the player, holding said thrower handle ends with both hands, shifts the handle in said elongated slots to push said body throwing-end against the underpart of said ball and said front wall; then turns the handle to turn said thrower body up so that the ball rolls into said body recess, to be held therein preliminary to being thrown; then shifts the handle to position the thrower into a desired direction of aim; then makes a quick turning-movement of the handle so that the thrower body turns with sufficient speed to throw the ball into space toward the target aimed at, said ball after striking target or said backboard drops down to said inclined base and rolls back to said pickup location for being played again in the same manner.

8. The combination of the projectile throwing device as defined in claim 1, with at least one projectile ball, an upstanding backboard attached to a supporting base and remotely spaced longitudinally from said open back of said casing, and at least one target mounted on said backboard for said ball to be thrown at.

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124—4; 273—85