United States Patent [19]

Nathanson

[11] **3,784,203**

[45] **Jan. 8, 1974**

[54] **LIGHT-ON TARGET GAME**

[76] Inventor: **Albert Nathanson,** 75-60 199th St., Flushing, N.Y. 11366

[22] Filed: **Feb. 5, 1973**

[21] Appl. No.: **329,372**

[52] **U.S. Cl.** ..... **273/126 A,** 273/1 E, 273/129, 273/128 R

[51] **Int. Cl.** **A63f 3/00**

[58] **Field of Search** ..... 273/118 A, 119 A, 273/120 A, 121 A, 122 A, 123 A, 124 A, 125 A, 126 A, 128 A, 1 E; 46/65, 226, 228

[56] **References Cited**

UNITED STATES PATENTS

3,275,324	9/1966	Burnside	273/121
3,348,844	10/1967	Lemonson	273/121
3,645,529	2/1972	Andrews	273/128
2,611,995	9/1952	Knapp	46/65

Primary Examiner—Richard C. Pinkham
Assistant Examiner—Theatrice Brown
Attorney—William T. Hough et al.

[57] **ABSTRACT**

In a preferred embodiment of the invention, the game includes a playing board having an upper flat face about rectangular in shape having a fence of resilient plastic circumscribing continuously at least about three sides with two separate closely spaced-apart electrified plates about centrally spaced intermediately between two of the opposite fenced sides and having also about intermediately spaced between the two oppositely spaced fenced sides a barrier structure nearer the remaining end and at a point adjacent the remaining end a sliding-missile propelling-device for propelling a slidable missile along the flat playing board face on one or the other side of the barrier structure reboundingly against the resilient fence, the missile being typically a disk in shape, and a lightbulb-carrying slidable disk which when struck by a rebounding missile-disk becomes purposely slid toward a straddling position whereby one electrical contact of the lightbulb is in contact with one of the electrified plates while another of the oppositely charged plates is in contact with the reamining electrical terminal of the lightbulb resulting in the lightbulb becoming illuminated thereby, the propelling device preferably including an elastic strip extending vertically anchored at each of opposite ends thereof.

9 Claims, 8 Drawing Figures

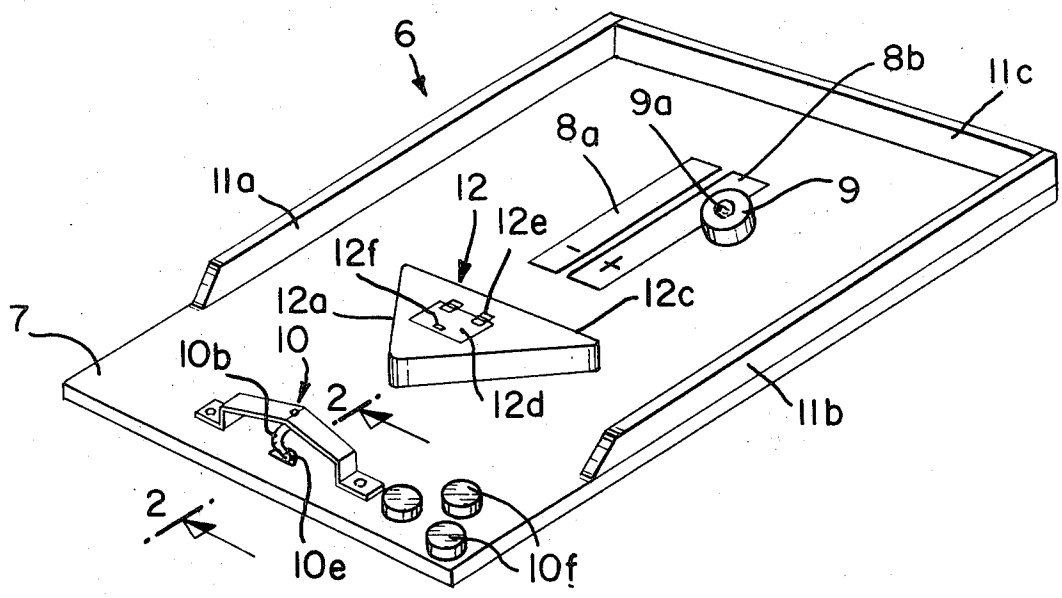


FIG. 1

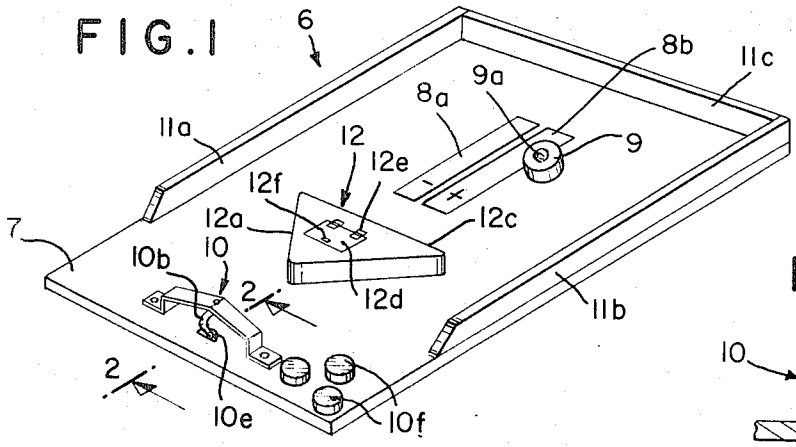


FIG. 2

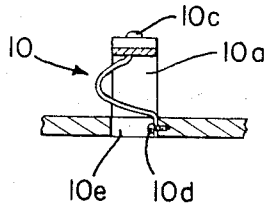


FIG. 3

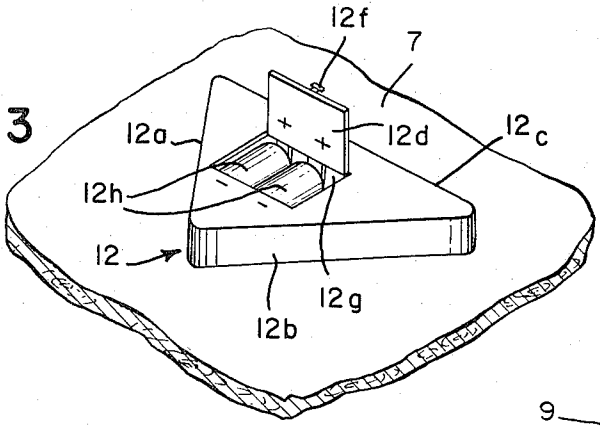
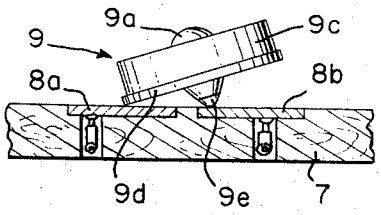


FIG. 4A



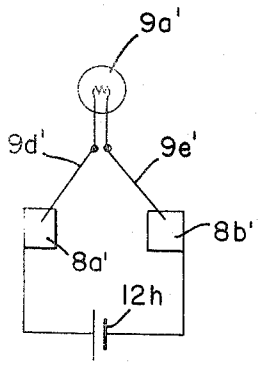


FIG. 5

FIG. 7

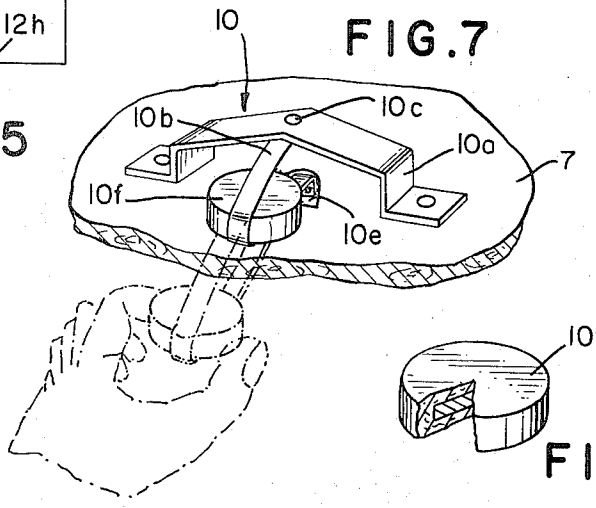


FIG. 4B

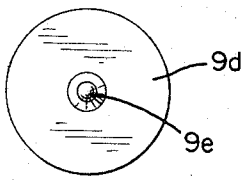


FIG. 6

LIGHT-ON TARGET GAME

This invention relates to a game having a playing board and sliding members.

BACKGROUND TO THE INVENTION

Prior to the present invention, there have existed various games for children, some of which are too simple and boring for older children while others suitable for older children are too complex and/or complicated for younger children. Moreover, most or at least too many children's games are merely for superficial amusement of the player-children without serving any real constructive purpose. In order to achieve any substantial challenge to a child, it normally becomes necessary for the construction of the game to become complex and costly for the purchase thereof by the public. In a compromise effort many games are made out of cheap materials resulting in a low durability and life of the toy in the normally destructive hands of children. Also, few games are balanced in any challenge to both the dexterity and the mental side of an individual child, and few which achieve either or both of these goals are truely educational. Yet for a child, education is best achieved by exposure thereto rather than conscious teaching efforts.

SUMMARY OF THE INVENTION

An object of the present invention includes the overcoming and/or solving one or more of the above-noted difficulties and problems and needs, while simultaneously offering a lasting interest of which the novelty does not readily wear-off and a source of fun to children and adults alike.

Other objects become apparent from the preceding and following disclosure.

One or more objects of the invention are obtained by the invention as described herein.

Broadly the invention is a game method and the game elements for the playing thereof, the main purpose being the sliding of a lightable element to slide to a position at which the lightable element lights up by virtue of the separate spaced electrical terminal contacts of the slidable lightable element to separately contact negative and postive electrical surfaces on a substantially flushy flat playing board, where the separate board electrified surfaces are positioned such that the player can cause the sliding solely by first rebounding an element off of a side wall or end wall or both and in that manner going around a barrier structure, it being possible to use the slide element itself, but the main and preferred game being the pre-game placing of the lightable element somewhere behind the barrier spaced away from the barrier and thereafter being able to slide the lightable element by virtue of impacting therewith other slide element(s) which are rebounded off of the rebound side and/or end boards or fences. Although it is possible to manually impart sliding motion to the impacting element(s), in a preferred embodiment the impacting force is imparted by a sling-shot arrangement but in which the elastic strip mounted at opposite ends thereof is mounted to extend substantially vertically whereby such arrangement facilitates the holding of the impacting slidable element by and between opposing fingers when drawing-back the impacting element in the elastic sling before releasing the impacting element after the aiming thereof whereupon the snapping-back of the sling-shot band imparts momentum to the slidable impacting element in the aimed direction reboundingly from the side fence first in a preferred embodiment in which the sling shot is about centrally mounted in front of the barrier such that only by aiming toward a side rebouner fence is it possible to rebound the impacting element toward the lightable element or alternatively from the side fence to the opposite end fence and then on its rebound from the end fence toward the lightable element. Accordingly the imagination of the child is required to deduce the angle of rebound necessary to cause the impacting member to rebound into the lightable element, aside from chance and some luck, the precise angle having to be determined such that when the lightable element is impacted it will slide to a straddling position between the separate electrified plates. Also envolved is muscular development in both the aiming and the correct amount of draw-back of the sling shot such that not too little and yet not too much momentum is imparted to the slidable impacting element and thereafter possibly to the slidable lightable element. A measure of excitement is in store for the successful player in the sight of the light bulb lighting-up upon a successful impacting of an impacting element thereupon. At the same time, the child becomes aware by association with such a game that the nature of effecting the lighting of the bulb is through the achievement of a completed electrical circuit and that the successful lighting is independent of which way the electricity flows through the light bulb, i.e. that either of the bulb contacts may contact either of two oppositely charged board-surface terminals so long as the other bulb contact is touching the other board oppositely charged terminal. It is also possible and preferred that the board terminals respectively will be marked as plus and minus terminals respectively to facilitate such a teaching leason. It similarly becomes readily apparent the function of batteries preferably encassed inside of the barrier structre and the meaning of batteries being mounted preferably in parallel so as to lengthen the longevity of each of the respective batteries.

There may be, within the framework of the physical board structure and arrangement as described above and as hereafter shown in preferred embodiment in the Figures, a variety of differ approaches and rules to differing games, such as each player alternating or having one go (turn) per player in series with other players, and/or where one player succeeds, another player having an opportunity to "undo" what the other player has succeeded in doing, and typically the scoring being that the successful player gets a score and/or the player who eventually ends up with the score being the player who "undoes" (turns-off the light) after a preceeding player has succeeded in turning on the light, and/or the player retaining his goal-score if each of the other players fails to turn-off the light.

Through exposure to such a game, each child will readily also learn that a light bulb does not light-up if both light bulb electrical terminals are in contact with the same board terminal, or one with a terminal and one in contact with mere insulation material. Such matter introduce the child to scientific facts about the nature and use of electricity and the hardware necessary for its functioning, while simultaneously the aiming and muscular release by the fingers in the shooting of the impacting disk develop both muscular tone and skill as well as mental calculation of angle of impact and re-

bound and as well as secondary impacts — such as would be in the case of pool, for example. Simultaneously the player(s) have access to an easily played safe game which is not easily destroyed and may be played by young and old alike.

The game in typical but preferred embodiments thereof may be better understood by the following illustrative Figures which are not intended to unduly limit the scope of the invention but are merely intended to facilitate a clear understanding thereof.

THE FIGURES

FIG. **1** is a front-oblique perspective top view of a typical game of the present invention.

FIG. **2** is an in-part view in cross-section of and through the missile-propelling sling-shot device.

FIG. **3** is an enlarged in-part view of the barrier-structure portion of the playing board of FIG. **1**, with the battery-concealing hinged door in the open state thereby in perspective view revealing the mounted paired batteries.

FIG. **4A** illustrates an in-part view in cross-section of the spaced-apart electrifiable plates with the slidable lightable element resting on the board surface with one light electrical contact in electricity-conducting contact with one plate surface and with the central other light bulb electrical contact in electricity-conducting contact with the remaining other plate surface at which position the light bulb is lighted if batteries or other electrical power is on.

FIG. **4B** illustrates an elevation plan bottom view of the lightable element of FIGS. **1** and **4A**.

FIG. **5** is a graphic diagrammatic view of the circuit when circuit is completed in typically the manner illustrated by FIG. **4A**.

FIG. **6** is a side-top perspective view of a typical impacting disk of the present game, for impacting against first a rebounding side-fence and on the rebound into the lightable element of FIGS. **1**, **4A** and **4B**.

FIG. **7** illustrates an in-part view in perspective of the playing board top with the sling-shot device having mounted therein for the shooting thereof an impacting disk, and illustrating in phantom the finger positions of the player during the retracting of the sling-shot prior to shooting during the aiming stage.

DETAILED DESCRIPTION OF THE INVENTION

In greater detail, FIGS. **1** through **7** disclose a typical but preferred embodiment of the present invention. It should be noted that as to the number of spaced plates and positioning of additional plates, and the sizes of any one or more of the respective plates, there may be considerable variation in number and sizes and locations thereof within the scope of the invention. Similarly, the shape of the fence(s) and board may be varied so long as the above-noted relationships are basically maintained. In like manner, the shape and/or size of the lightable element may be varied. Similarly the impacting member may be varied.

FIG. **1** shows the playing board and pieces **6**, which collectively include the board **7** having a flat upper face with side rebound rails **11***a* and **11***b* and the intermediate rail **11***c*, and having enbeddied flushly with the upper face of board **7** the separate spaced-apart electrifiable plates **8***a* and **8***b*, and the slidable lightable member **9**. The propelling sling-shot device **10** is mounted preferably about centrally at the remaining end of the playing board **7**, with an upright sling strip mounted on the mounting structure at one end and onto the board **7** at the other end, preferably within an elongated somewhat-pointed hole **10***e* such that when the sling is retracted, the slidable disk **10***f* may still be or remain about at board-surface level preferably thereby facilitating the achieving of a sliding disk rather than a disk merely being shot through the air and/or rolling the disk — whereby greater control and accuracy becomes possible in the aiming and shooting of the disk. Located between the electrifiable plates and the sling-shot device is a barrier obstruction around which the slidable missile disk is to be shot by rebounding the disk into a side wall **11***a* or **11***b* such that upon the rebound therefrom the rebounding disk hopefully slides toward the lightable element **9**. The lightable element or member **9** inclues the bulb and elements thereof, designated **9***a*, the casing **9***c*, the base-annular electrical element **9***d* (see FIG. **4B**) and the central bulb-base projecting electrical contact element **9***e* (FIGS. **4A** and **4B**). The barrier structure **12** includes diverging faces (sides) **12a** and **12***b* facilitating the channeling of a shot missile disk which when shot from the sling shot might-well first hit the barrier side **12***a* or side **12***b* to thereafter rebound into the fence **11***a* or **11***b* respectively. In the top of the barrier structure **12** is a recess **12***g* into which is mountable batteries **12***h*, with lid **12***d* pivotably mounted on hinges **12***e* having handle **12***f*.

The sling shot device **10** as best illustrated in FIG. **2** includes the recess-cavity **10e** having the lower end of the resilient band **10***b* (FIGS. **1** and **7**) mounted at a lower end at screw **10***d* and at its upper end by lock screw **10***c* of brace **10***a*.

The electrical circuit with the lightable member correctly positioned for completing a series circuit is illustrated in FIG. **5**, in which the light **9***a'* corresponds to the FIGS. **1** and **4** bulb **9***a*, contacts **9***d'* and **9***e'* respectively correspond to FIGS. **1** and **4** contacts **9***d* and **9***e*, and plates **8***a'* and **8***b'* correspond to plates **8***a* and **8***b*.

Preferably the rebound fences **11***a*, **11***b*, and **11***c*, as well as the side faces **12***a*, **12***b*, and **12***c*, one or more thereof are made of or at least include a surface layer of resilient rubber or plastic such that resiliency and the resulting rebound of the missle element(s) **10***f* is enhanced. Similarly, the missile element(s) **10***f* may be of a resilient composition, preferably encasing a weightly core for increasing the mass thereof, each of these features similarly enhancing the rebound nature thereof, a core being illustrated in the FIG. **6** view of a typical slidable missile element **10***f*.

It is within the scope of the invention to make such other variations and modifications and substitution of equivalents as would be apparent to a person of ordinary skill in this field, for example it being readily apparent that other types of propelling devices may readily be utilized in substitution for the sling shot preferred device.

I claim:

1. A game comprising in combination: a substantially flat playing board means; guard-rail means extending peripherally along at least two opposite side edges and an intermediate first end edge; at least two separate electricity-conductive plates mounted in an upper face of the playing board means recessed therein with each plate having an upper face flushly aligned in a common plane with the playing board means with edges of the plates spaced from one-another a predetermined small

distance; a barrier structure extending from a central portion of said playing board means about intermediate between and spaced from each of said two opposite side edges and guard-rail means thereof, located toward a second end such that said recessed plated are positioned between said barrier structure and said intermediate first end edge and the guard-rail means thereof; electric light bulb playing piece means including a slidable mounting structure having mounted therein a lightbulb and two spaced-apart electrical contacts each respectively positioned to separately touch a supporting flat surface; and electrical power means having a negative terminal connected to one of said two plates and a postive terminal connected to the other of said two plates, such that upon sliding the playing piece means into a position with one termal thereof contacting one of said two plates and with the remaining terminal thereof contacting the other one of said two plates, the lightbulb lights-up.

2. A game of claim **1,** including at least one slidably structured impacting means for sliding along said flat playing board means reboundingly against said guard-rail means reboundingly toward and into said electric light bulb playing piece means such that the impact from the impacting means causes the electric light bulb playing means to slide along one or more of the upper faces of the playing board means and the recessed plates.

3. A game of claim **2,** including a propelling means mounted on an upper face of said playing board means at a site adjacent said second end, for propelling said impacting means slidably.

4. A game of claim **3,** in which said electric lightbulb playing piece means is disk shaped and in which an outer one of the lightbulb terminals extends to a lower-surface outer edge and in which a central one of the lightbulb terminals extends centrally downwardly projecting beneath the disk's lower surface such that the center of the disk is supported above the supporting upper face of the playing board means or the plates.

5. A game of claim **4,** in which said predetermined distance of spacing between the two plates is such that the disk-edge terminal is contactable of one of said plates while the central projection terminal is contactable of the other of said two plates.

6. A game of claim **5,** in which said propelling means is located about mid-way spaced between opposite ones of said two opposite side edges.

7. A game of claim **6,** in which said propelling means includes an elastic strip extending along an upright plane such that opposing fingers of a player may grasp opposite edges of one of said impacting means while the elastic strip supports the impacting means for withdrawing the impacting means against the elasticity pressure of the elastic strip, the elastic strip being anchored at upper and lower ends thereof.

8. A game of claim **3,** in which said propelling means includes an elastic strip extending along an upright plane such that opposing fingers of a player may grasp opposite edges of one of said impacting means while the elastic strip supports the impacting means for withdrawing the impacting means against the elasticity pressure of the elastic strip, the elastic strip being anchored at upper and lower ends thereof.

9. A game of claim **1,** in which said impacting means is a weighted member having a disk shape.

* * * * *