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E. W. MELVIN
 TARGET WITH ELECTRICAL INDICATOR AND
 CONDUCTIVE ADHERENT PROJECTILE
 Filed March 1, 1967

3,455,553

FIG. 1

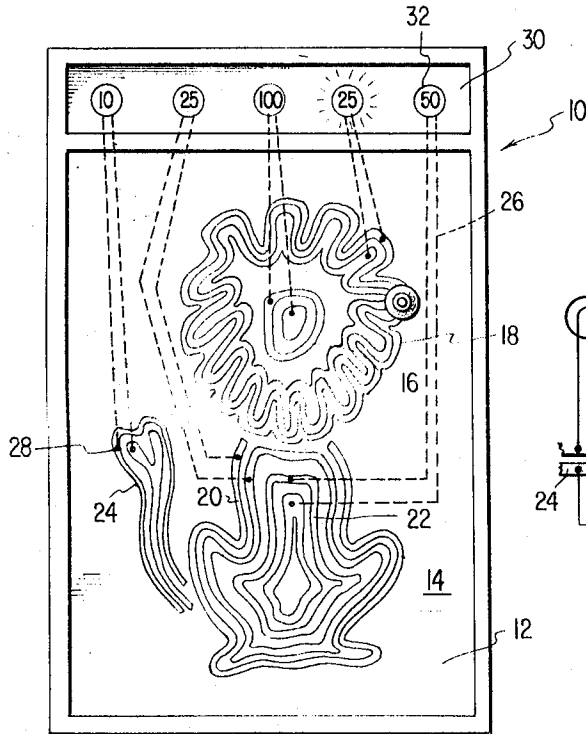


FIG. 2

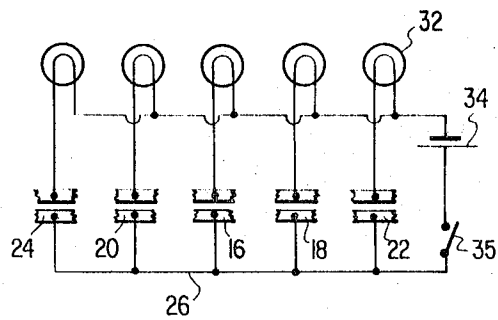


FIG. 3

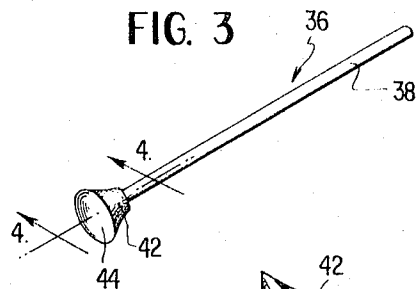


FIG. 4

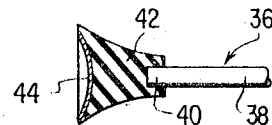
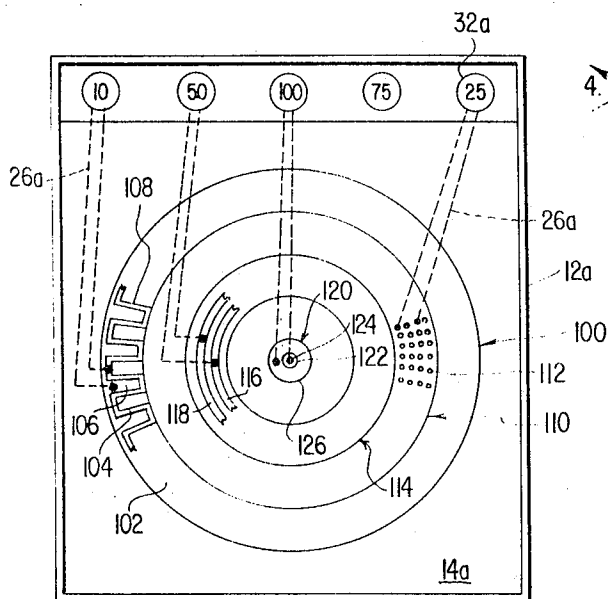


FIG. 5



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TARGET WITH ELECTRICAL INDICATOR AND CONDUCTIVE ADHERENT PROJECTILE

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2 Claims

ABSTRACT OF THE DISCLOSURE

A game board with conductive strips or contacts defining target areas and means interconnecting the strips or contacts with visual or audible scoring indicia. An adherent, conductive projectile utilizing a suction cup having an inner face coated with pliable conductive plastic material bridges adjacent strips thereby completing a circuit to the scoring indicia.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to amusement devices in the nature of a target and projectile, and more specifically, to a board and projectile combination wherein the projectile and board coact to produce perceptible signals upon contact of the projectile with selected areas of the target.

Deescription of the prior art

Prior patents dealing with signal producing targets include United States Patents No. 2,629,599 and 2,693,959.

SUMMARY OF THE INVENTION

The present invention relates to a game or the like wherein a projectile is thrown or otherwise propelled to strike a target board. Preferably, the projectile is adapted to temporarily adhere to the board, and the arrangement of components is such that separate signal circuits are actuated upon striking certain designated areas with the projectile to result in a visual, audible or otherwise perceivable signal indicating score.

It has been previously known to provide signaling targets, examples of the previously known devices being represented in the patents mentioned hereinabove. These prior arrangements have often employed projectiles adapted to puncture or pierce the outer face of the board with a sharply pointed dart or the like, and are therefore not only dangerous in use but subject the board itself to a short life span. The present invention avoids the use of sharp or otherwise dangerous projectiles, and thereby precludes the objections most frequently encountered in connection with the previous devices. It is therefore a basic objective of the invention to supply a signalling game board and projectile wherein the projectile completes an energy-conductive circuit to activate a visual and/or audible alarm. A related primary objective of the invention concerns the provision of a board with exposed contacts, and a projectile adapted to temporarily adhere to the board to bridge the contacts and activate the signals without damage to the board.

Another objective of the invention resides in providing a target game with score signalling means which serves to create and maintain interest in the game.

Still another objective relates to the provision of a contact-type electrical conductor defining a score area in a target or similar environment.

Yet another objective resides in the provision of a projectile of the type adapted to adhere to a surface, the projectile including electrically conductive portions.

Additional objects and advantages of the invention will

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become apparent to those skilled in the art from a consideration of the following specification when read in conjunction with the annexed drawings.

BRIEF DESCRIPTION OF THE DRAWING

FIGURE 1 is a plan view of a target board constructed and assembled in accordance with the teachings of the invention;

FIGURE 2 is a diagrammatic showing of a typical electric circuit involved herein;

FIGURE 3 is a perspective view of one type of projectile adapted for use in the practice of this invention;

FIGURE 4 is an enlarged, detail sectional view taken substantially on the section line 4—4 of FIGURE 3, looking in the direction of the arrows; and

FIGURE 5 is a plan view similar to FIGURE 1 showing modifications of the conductive contacts hereof.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring initially to FIGURE 1 of the drawing, it is therein seen that a typical board 10 of the present invention comprises a board body portion 12 of any suitable form having a planar forward surface 14 of non-conductive material and of a low porosity, smooth material having good adhesion characteristics. Positioned on the surface 14 is a plurality of pairs of spaced apart, continuous conductive strips 16, 18, 20, 22 and 24 each arranged in a designated pattern. In the example chosen for illustration in the drawing, the areas represent portions of an animal body, and the strips are formed of electrically conductive material such as metallic foil, wires, or the like and may optionally be of decorative color or design. Optionally, the strips may be formed of a conductive paint, such as one with powdered metallic particles therein. The strips are of extremely thin construction and do not materially change the characteristics of the forward surface 14 of the board. An electrical lead wire 26 is connected at a contact point 28 to each of the contact strips and may be imbedded in the body portion or underline the same.

At a selected area, for example in a linear arrangement 30 at the top of the board, a series of signal indicia 32 such as electrical light bulbs with numerical scoring indicia thereon is provided. Optionally, other signalling means such as bells, or the like may be employed. The indicia 32 are connected in the respective circuits of the wires 26 of each pairs of contacts 16—22 whereby, upon completion of a circuit by conductive bridging of the contacts of any selected one of the pairs, the corresponding light 32 is activated. As shown in the drawing, the numerical indicia on the bulbs is a function of the difficulty or size of the particular target area related thereto—the more difficult areas producing a higher score. A suitable energy source, such as an electrical storage battery 34, may be included in the circuit, and a switch means 35 is also supplied.

In FIGURES 3 and 4, a projectile 36 of the type contemplated is shown. The projectile herein is disclosed as comprising a dart with a stem section 38 for throwing or expulsion from a projecting device. One end 40 of the stem has a suction head 42, formed of rubber or similar material, frictionally engaged thereon, and the head has a board contact surface 44 formed of an electrically conductive substance (described below).

In FIGURE 5, additional non-limiting examples of possible modifications of the contact means on a board 12a are shown. In the target 100 consisting of concentric circles marked on the face 14a of the board 12a, the outer ring 102 has a serpentine conductive strip 104 insulated from a conductive background 106 by thin, non-conductive outline strips 108—wires 26a extending from the strip 104 and background 106. The next interior ring 110

has a series of spaced contact points 112. The spaced points are connected to the wires 26a leading to the signal 32a at appropriately spaced positions. Still another possible arrangement is shown in the next ring 114 where the contacts 116, 118 are themselves in concentric, spaced apart form. Finally, the center ring 120 may consist of a conductive inner circle 122 separated by a thin non-conductive line 124 from an outer conductive strip 126.

Operation of the invention is believed clear from the structure heretofore described. The projectile 36 is thrown or propelled in such manner as to strike the board and adhere to its face 14 or 14a. Assuming that a designated area containing a contact unit is struck, the bridging of the contacts by the conductive cup face 44 completes a signal circuit causing a lamp 32 or 32a to be energized. Inasmuch as the projectile adheres to the target face, the signal remains in energized condition so long as the projectile is not removed.

The cup face 44 is, as stated above, of a conductive substance of any type permitting adherence to the board. For example, conductive plastic such as that described in Hauck, Materials in Design Engineering, October 1963, pages 100 through 103, may be employed.

Having described and illustrated two embodiments of the invention in some detail, it will be understood that these descriptions and illustrations have been offered only by way of example, and that the invention is to be limited in scope only by the appended claims.

I claim:

1. A signaling target game of the type in which different signals are activated responsive to striking areas related to said signals, the game comprising:

- a board having a planar, exposed face;
- the board being formed of electrically insulated material;
- a series of electrically conductive strips mounted on the exposed face of the board and substantially coplanar with said exposed face;

the strips being arranged in pairs, with the strips of each pair spaced a selected distance from one another; each pair of strips being connected in an electrical circuit to a signal, the circuit and signal for each pair being independent of those for the other pairs; each pair of strips defining a target area;

a projectile of the suction cup type having a cup section and a stem;

the cup section having a cup face of a dimension such that it is adapted to span the distance between the strips of the pairs of strips;

the cup face being coated with a layer of pliable, compressible, conductive plastic substance; and

the cup adhering to the board upon projection thereagainst and completing a signaling circuit through any pair of said strips when said cup face bridges the same to activate said signal.

2. The invention of claim 1, wherein:

the layer extends over the full area of the cup face.

References Cited

UNITED STATES PATENTS

2,629,599 2/1953 Gaut.

FOREIGN PATENTS

1,037,950 5/1953 France.

237,059 7/1925 Great Britain.

OTHER REFERENCES

Materials in Design Engineering, Hauck, J. E., October 1963, pp. 100-103.

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U.S. Cl. X.R.

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