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BAFFLEBOARD BALL GAME APPARATUS

Filed March 22, 1965

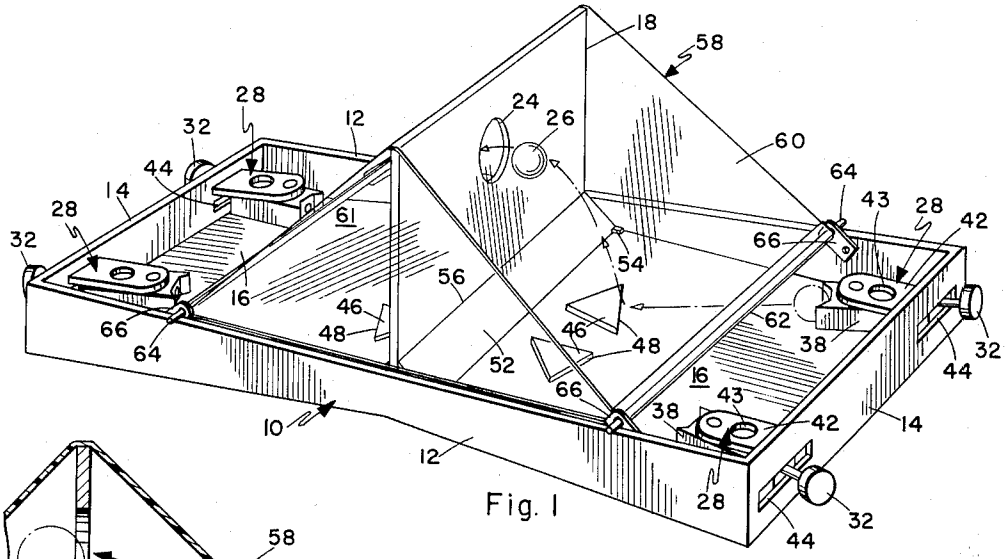


Fig. 1

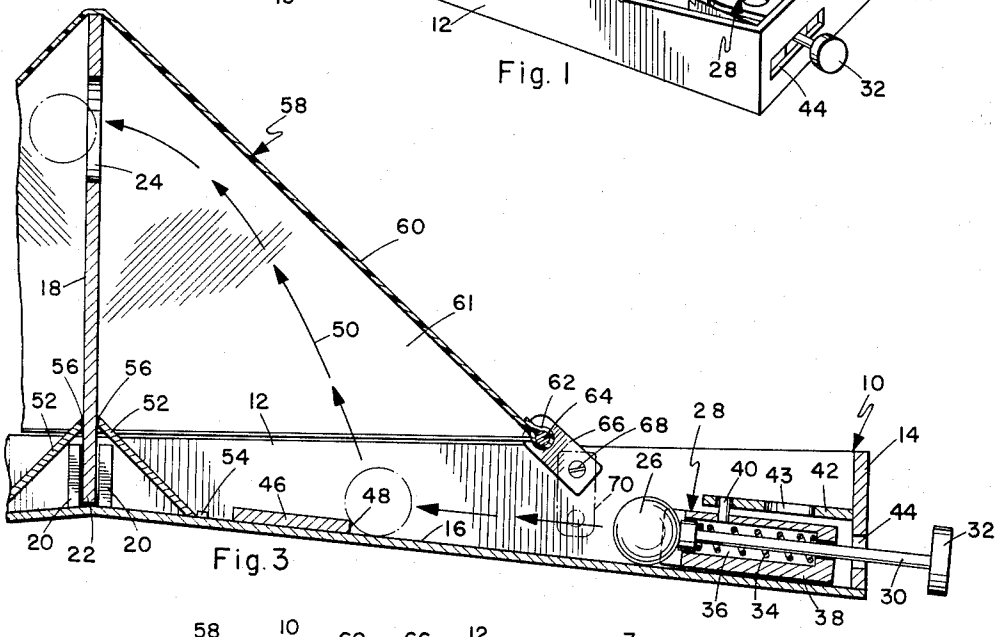


Fig. 3

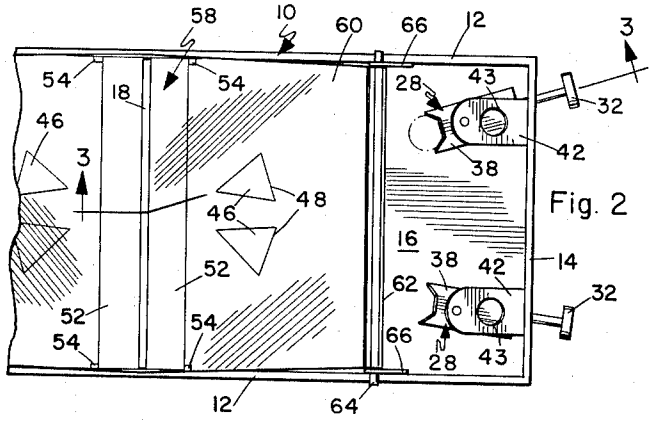


Fig. 2

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BAFFLEBOARD BALL GAME APPARATUS

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6 Claims. (Cl. 273—101)

This application is a continuation-in-part of my application Serial No. 146,833, filed October 23, 1961, and now abandoned.

This invention relates to apparatus for a new game played with a ball of extremely light weight, preferably hollow, and quite resilient and the apparatus developed to exploit the peculiar characteristics of such a ball when used with ball-propelling guns in a pin-ball type of game apparatus.

The principal object of this invention is to provide apparatus for a game which demands the exercise of great skill and muscular co-ordination, and to make it possible for opposing players to add to the excitement of the game by cross fire and interference with the balls projected by opposing players.

It is another object of the invention to provide a game apparatus which can be easily collapsed into a small space to facilitate storage and transportation of the game apparatus.

It is another object of this invention to provide a unique gable construction which combines the functions of a top baffle for the projected balls as well as a canopy, the latter being thought of as functioning merely as a cover to prevent interference with the flight of the balls and to prevent lateral escape of the balls.

Another object of this invention is to provide apparatus which is ideally suited for use by as many as four players, there being a single target aperture in a centrally disposed baffle board, each of the players being able to interfere with the traffic through said target aperture of the balls fired by opposing players, provision being made for the very rapid return of the balls which do not pass through the target aperture, thus heightening the excitement of the game and enabling fast game action.

Another object of the invention, ancillary to the preceding objects, is to provide game apparatus of this character wherein ball-propelling guns are located at all four corners of the cabinet, thus permitting use by four players even though the space required by the apparatus as such is quite limited.

The last object to be mentioned is to provide game apparatus particularly suitable for use in game rooms, private playrooms and the like, which is inexpensive to manufacture, completely safe while intensely interesting to use and which is quite durable and rugged. Other objects will appear as this description proceeds.

Drawings

A preferred embodiment of my invention is described in detail in the following specification and is illustrated in the accompanying drawing, in which:

FIGURE 1 is a view of the game apparatus, in perspective;

FIGURE 2 is a fragmentary top plane view of the game apparatus; and

FIGURE 3 is a fragmentary vertical sectional view taken substantially on the line 3—3 of FIGURE 2, this figure being on an enlarged scale, the better to show the detailed construction of the various parts.

Detailed description of the invention

Referring now to the drawing in detail and to the parts and portions thereof by reference numerals, the same reference numerals being used to designate the identical or similar parts and portions throughout the various figures, the apparatus includes a cabinet, generally indicated

by the numeral **10** having vertical side walls **12** and vertical end walls **14**. The bottom of the cabinet is constituted by board or panel elements which function as playing surfaces **16**, as well as structural elements of the cabinet. It will be noted that the cabinet has a reduced vertical dimension at its central part and a greater vertical height at each end wall **14**, and this has been found to improve the stability of the cabinet when placed on surfaces which are not perfectly flat, and to tend to keep the cabinet from shifting unduly when the ball-propelling guns are operated overzealously in the excitement of the game, the playing surfaces **16** being inclined.

Disposed centrally in the cabinet is a vertical baffle board **18** which is primarily supported by lateral guide rails **20** fixed in spaced relation on the inner surfaces of the side walls **12** and engaging the lower lateral edges of the baffle board **18**. The lower longitudinal edge of the baffle board rests upon the bottom of the cabinet, that is, the juncture of the playing surfaces **16**. The baffle board is provided with a target aperture **24**, preferably disposed centrally of the upper portion of the baffle board, and a plurality of balls, one of which is indicated at **26**, are disposed on each of the playing surfaces. The character of these balls is extremely critical. They can be most easily described as being "Ping-pong" balls, that is, they must be of extremely light weight and highly resilient, all such balls will probably be hollow and will also probably be constructed of plastic. The character of the balls is determinant to a very great degree the general character of the game played with this apparatus and the use of "Ping-pong" balls is proposed as a novel and very important feature of this invention.

Ball propelling guns, generally indicated by the numeral **28**, are provided at each end of the cabinet, preferably four in number and disposed at each corner of the cabinet, that is, at each end of each end wall **14**. The ball propelling guns are identical and only one will be described: each gun includes a plunger **30** terminating in a handle or knob **32** and biased toward the baffle board **18** by a spring **34**, the spring and a portion of the plunger being housed in a cylindrical bore **36** of a block **38**. Each block **38** is pivoted, as at **40**, upon a bracket plate **42** which is fixed to the corresponding end plate **14** and extends inwardly of the cabinet above the ball-propelling gun. Each bracket plate is provided with a finger access hole **43** to enable the player to hold the gun after pre-positioning the same by swinging action applied to the plunger knob **32**. A slot **44** is provided in the adjacent portion of the end wall **14** to accommodate an intermediate portion of the plunger **30**.

A plurality of lofting elements **46** are secured upon the playing surfaces **16**, these lofting elements being in the general planes through said target aperture and the corresponding gun. In the illustrated embodiment four such lofting elements are shown but it will be understood that the lofting elements on each playing surface may be combined into one larger lofting element extending a greater distance transversely of the playing surface, one very important structural feature being retained in any case, namely, that the portion or portions of the lofting element or elements disposed toward the baffle board must be tapered toward said baffle board so that the balls returned therefrom will not be arrested by the lofting element, even though they may be deflected thereby in rolling back toward the guns. The edges **48** disposed toward the guns of the lofting elements are normal to the playing surface, as best shown in FIGURE 3, and the angle thereof is a factor largely determinant of the path of the ball upwardly toward the target aperture **24**, this path being indicated graphically in FIGURES 1 and 3 by the arrows **50**. That the ball must be a table tennis ball or the equivalent has already been mentioned

and certain dimensions are also critical, to wit, the height of the edge **48** to operate efficiently with such a table tennis ball must be approximately one-eighth inch, or at least within the range of three thirty-seconds to five thirty-seconds of one inch in height, and the edge **48** should be seven inches with a possible tolerance of only one-quarter inch if the ball is to transverse the target aperture **26** in horizontal flight.

Ball return ramps **52** are provided on each side of the baffle plate **18**, the lower edges of these ramps being engaged by stop blocks **54**, disposed laterally of the plane surfaces **16**. The upper edges **56** of the ramps **52** engage intermediate portions of the baffle board **18**, greatly aiding in stabilizing the baffle board, it being recalled that the baffle board is removably and somewhat loosely inserted between the lateral guide rails **20**.

A gable **58** of unique structure is functionally a combined top baffle and canopy. The gable is comprised primarily of flexible sheet material **60** and as a top baffle it deflects balls which are made to bounce extra high upon striking the lofting elements **46**, a skillful player being able thus to use the gable as a top baffle to deflect a ball through the target aperture **24**. As a canopy the gable **58** covers the whole central portion of the cabinet and the side flaps **61** of the gable prevent the balls from escaping laterally of the cabinet during play. Each end of the gable has a channel **62** constructed in the sheet material **60** thereof to accept a pair of dowels **64** of such a length as to extend onto the upper edges of each of the side walls **12**. This arrangement of the dowels holds the brackets **66** in the positions shown clearly in FIGURES 1 and 3, with the sheet material **60** stretched over the top of the baffle board **18** and the side flaps **61** tautened into vertical position, it being understood that these side flaps are of triangular form. The brackets **66** are secured to the inner surfaces of the side walls **12** by pivots **68**, which may take the form of simple headed screws, and the brackets are shown in operative positions in FIGURES 1 and 3 and one of these brackets is shown in inoperative or retracted position in chain lines in FIGURE 3. It is thought that this simple showing of the positioning of the bracket **66** in inoperative position in FIGURE 3 will indicate how the entire gable is removed or collapsed for storage or transportation of the apparatus, the dowels simply being manipulated axially thereof, being reasonably loosely held in the corresponding channels **64**, to release the ends of the dowels from the brackets **66**, thus permitting the entire canopy to be removed and collapsed when desired. It will also be noted that the baffle board **18** is easily removed by simply raising the same out of the sockets defined by the lateral guide rails **20**, and the ball return ramps **52** are simply then lifted out and stored in the body portion of the cabinet along with the folded or collapsed gable.

The operation of the invention has already been rather completely divulged by the foregoing description of the apparatus and it remains only necessary to point out that the particular game rules to be employed can be varied considerably, as can the number of players, in the operation of this invention.

It is understood that minor variation from the form of the invention disclosed herein may be made without departure from the spirit and scope of the invention, and that the specification and drawing are to be considered as merely illustrative rather than limiting.

I claim:

1. Game apparatus comprising:

a rigid cabinet including upstanding, peripherally disposed side and end walls and a plurality of playing surfaces;

a vertical baffle board extending across said cabinet and separating said playing surfaces, said playing surfaces being inclined downwardly from said baffle board toward each of said end walls, and said baffle board having a target aperture therein;

ball propelling guns mounted in said cabinet and manually operable from without said end walls;

a plurality of extremely light weight, hollow and resilient balls on said playing surfaces;

a plurality of lofting elements, mounted on said playing surfaces, an equal number of said lofting elements being on each side of said baffle board;

ball returning ramps fixed to said playing surfaces immediately adjacent to each side of said baffle board;

a gable comprising a top baffle and a canopy covering a major central portion of said playing surfaces, said baffle board supporting said gable at its center;

and mounting means to mount said gable on said cabinet for collapsibility of said gable when said baffle board is removed.

2. Apparatus according to claim **1** wherein said ball returning ramps are plate-like and extend across the cabinet at the lower edge of said baffle board and present upper surfaces inclined downwardly toward said guns, the upper edges of said ramps engaging said baffle board and stabilizing said baffle board.

3. Apparatus according to claim **1** wherein said gable has a supporting dowel at each end thereof;

and means terminally and releasibly securing said dowels to said side walls.

4. Apparatus according to claim **3** wherein the ends of said gable are spaced inwardly from said end walls defining an open space at each end of the cabinet thus providing access to said guns and returned balls.

5. Apparatus according to claim **1** wherein said guns are disposed adjacent each end of each end wall enabling cross-fire ball propulsion toward said target aperture, said lofting elements being disposed generally in planes through said target aperture and said guns.

6. Apparatus according to claim **1** wherein each of said lofting elements is spaced seven inches from said baffle board, measured in the direction of the corresponding playing surface, and said lofting elements have edges against which the balls are projected, said edges being approximately one-eighth inch in height above the corresponding playing surface.

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