April 25, 1967 A. P. FRIGO 3,315,960

RAIL BUMPER FOR GAMING TABLE

Filed Feb. 23, 1965

FIG. 1

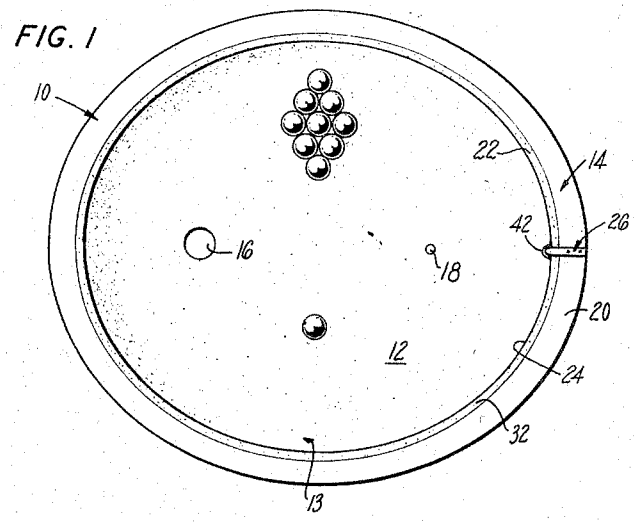


FIG. 2

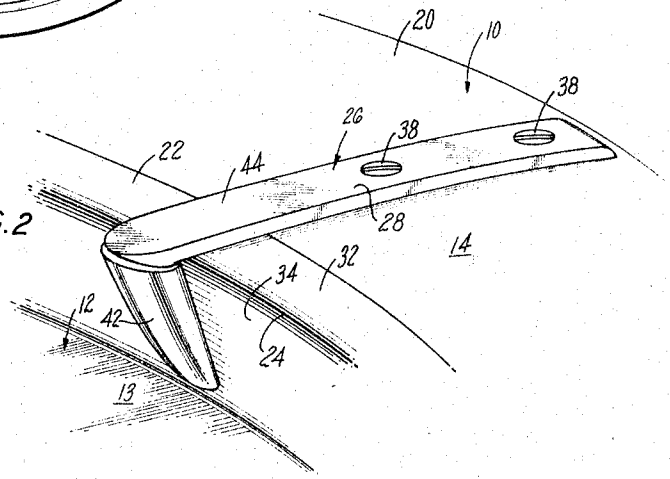
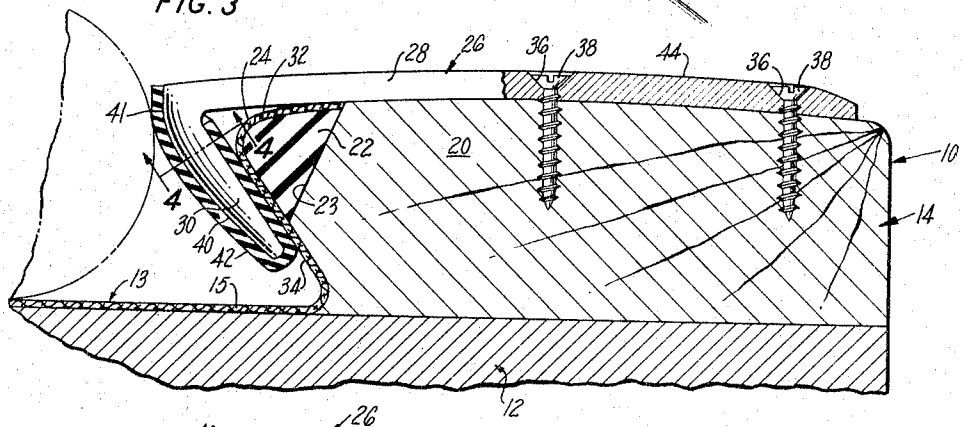


FIG. 3



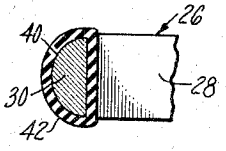


FIG. 4

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RAIL BUMPER FOR GAMING TABLE

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The present invention relates to an improved gaming table of the pocket billiard or pool type and more particularly to a gaming table of the type shown in my U.S. Patent 3,029,078, entitled, Gaming Table, dated Apr. 10, 1962, and having a curvilinear cushion or rail defining the periphery of the playing surface and curved to employ certain rebounding characteristics which enhance the challenge and excitement of the game.

In the game of pool, an object ball or both the object ball and the cue ball may come to rest at the periphery of the playing surface either against or in close proximity to the peripheral cushion of the table. As is well known, it is difficult to properly play a cue ball positioned against the cushion or to dislodge an object ball positioned against the cushion and accordingly when this occurs on tables utilizing a curvilinear cushion, the player may not be able to properly utilize the special rebounding characteristics for which the curvilinear cushion is designed and he may not be able to avoid driving the peripherally located object ball along the curvilinear cushion. Also, where the cushion is formed to provide a curvilinear periphery about the entire playing surface, as where the cushion and playing surface are elliptical, a ball striking the cushion at a small angle will, due to the curvilinear configuration of the rail, repeatedly strike and rebound from the cushion at diminishing angles such that the ball eventually merely tracks or follows along the peripheral cushion without rebounding. This is particularly noticeable in the play of inexperienced players who are more likely to misjudge or be inaccurate in the selection of the proper angle of play.

Accordingly, it is a principal object of the present invention to provide an improved gaming table of the type described which provides for playing the peripherally located balls without changing the special rebounding characteristics of the table and which provides for limiting the peripheral tracking of such balls along the cushion.

Still another object of the present invention is to provide an improved gaming table of the type having a playing surface having a curvilinear boundary which limits peripheral tracking of a ball without adversely interfering with the normal playing principles and techniques which may be employed when playing pocket billiards or pool with such tables.

Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereafter set forth, and the scope of the application of which will be indicated in the appended claims.

In the drawing:

FIG. 1 is a top plan view of a gaming table embodying the present invention, additionally showing a cue ball and a stack of pool balls on the playing surface of the table;

FIG. 2 is an enlarged partial perspective view of the gaming table showing in detail a peripheral portion of the table;

FIG. 3 is an enlarged partial elevation section view of the gaming table, partly broken away and partly in section, additionally showing a pool ball in part in phantom; and

FIG. 4 is a section view, partly broken away, taken substantially along line 4—4 of FIG. 3.

Referring now to the drawing in detail wherein like referenced characters indicate like parts throughout the several figures, a gaming table of the type used in pocket billiards or pool, generally designated **10**, is similar to the gaming table described in my U.S. Patent 3,029,078, which issued Apr. 10, 1962. As described in greater detail in that patent, the table **10** includes a table top comprising a horizontal planar base member **12** which provides a recessed playing surface **13** that is enclosed by a curved rail, generally designated by the numeral **14**. The base member **12** and the rail **14** preferably have a covering of felt **15** or similar material (FIG. 3) in a manner which is typical of pool and billiard tables. In the specific embodiment shown, the playing surface **13** has an elliptical shape and is provided with a pocket **16** which is preferably located at one of the foci on an axis of the elliptical playing surface and which is therefore spaced inwardly of the rail **14** and outwardly of the geometrical center of the playing surface. For reference purposes a second foci located on the same axis as the pocket **16** may be indicated as shown in FIG. 1 with a marker **18**.

Referring now particularly to FIG. 3, the rail **14** is shown comprising an upright rim **20** of substantially rigid material such as wood or the like which is mounted on the base member **12** of the table. Forming the inner curvilinear edge of the rail **14** is a resilient cushion **22** of generally triangular configuration which is affixed to an inner edge **23** of the rim **20**. As shown, the cushion **22** projects inwardly so that its apex **24** defines the innermost extent of the rail as well as the curvilinear periphery of the playing surface **13**.

In accordance with the present invention, the table **10** is provided with a relatively narrow bumper **26** adjacent to and inwardly of the apex **24** of the cushion **22**. The bumper **26** is provided by a generally V-shaped frame member having a first elongated leg **28** securely fixed to the top face of the rail **14** and an integral second leg **30** of shorter length which slopes downwardly and outwardly from the inner end of the frame. The angular relationship between the legs **28**, **30** is shown to be substantially the same as that defined by the exposed surfaces **32**, **34** of the triangular cushion **22**, approximately 60° as seen in FIG. 3.

As shown in FIGS. 2 and 3, the leg **28** is of platelike construction with a pair of countersunk apertures **36** for attaching the bumper **26** to the rim **20** with threaded wood screws **38**. Unlike leg **28**, which has generally flat inner and outer faces, the leg **30** of the bumper **26** tapers downwardly toward its free end and has a forward edge **40** having a compound curvature including a convex or rounded curvature along the leg as seen in FIG. 3 and a convex or rounded curvature transversely of the leg as seen in FIG. 4. The forward edge **40** faces inwardly of the rail toward the playing surface and has an apex **41** shown to be slightly higher than the apex of the cushion **22**. Covering the leg **30** is a resilient rubberlike sleeve **42** which is formed to extend preferably to or slightly below the top surface **44** of the leg **28**. Because of the convex curvature of the leg **30** it will not function as a guide for the ball, but instead a ball striking the same will carom or rebound toward the center of the table in varying directions depending upon the angle at which the leg **30** is struck by the ball. In this regard, the dimensions of the leg **30** are preferably such that it will project for only a small distance into the normal playing area and preferably not more than half the diameter of the ball, which in most tables is usually slightly greater than the height of the cushion. As a specific example, a projection of about ½" to 1" is preferable. This minimizes the directional effect exerted on the ball and also keeps to a minimum the amount of normal rail area which is covered.

Although the bumper 26 could be readily located or relocated at any one of an infinite number of positions along the periphery of the playing surface to provide for preventing peripheral tracking of a peripherally positioned ball, the bumper is preferably symmetrically positioned on the axis of the elliptical playing surface in which the pocket 16 is located but on the opposite side of the geometrical center of the playing surface from the pocket 16. So located, the bumper presents the least interference with the use of the normal rebounding characteristics of the table. For example, a shot which would normally utilize a rebound from the portion of the cushion which is inaccessible due to the placement of the bumper would be moving in a direction normal to the surface and therefore it is possible to utilize the bumper in the same manner to provide the rebound. Also, the portion of the playing surface at the preferred bumper location presents the least criticality so far as the angle of movement of the ball is concerned and thus, particularly when the bumper is of small size, it is possible to avoid the bumper and still not miss the shot. Thus, a ball can be intentionally driven to strike the cushion adjacent the bumper, when from a purely mathematical viewpoint it should be driven against the cushion behind the bumper, and the ball would nevertheless rebound with sufficient accuracy to, for example, sink the ball into the pocket.

The resilient convex surface of the bumper projecting a short distance from the rail into the playing area assures that any ball which inadvertently or unavoidably is tracking along the curvilinear rail will, upon striking the bumper, rebound onto the playing area away from the rail without however being directed toward the pocket so as to afford any advantage in a directional sense. However, the bumper may be utilized in some instances and with proper skill to permit the cue ball to be caromed off to make difficult angle shots on object balls in the center region of the table.

As will be apparent from the foregoing description, the present invention provides an improved elliptical or curvilinear pool table which reduces ball tracking along the edge of the playing surface, which advances the demanding and stimulating qualities of the game played on the table, and which increases the potentiality for effectuating difficult angle shots not heretofore possible, all without adversely affecting the special rebounding characteristics of the table.

As will be apparent to persons skilled in the art, various modifications and adaptations of the structure above described will become readily apparent without departure from the spirit and scope of the invention, the scope of which is defined in the appended claims.

I claim:

1. A pool table comprising a flat playing surface, a rail about the playing surface having an inner concavely curvilinear cushion forming the perimeter of the playing surface, and a fixed bumper located at a predetermined position along the perimeter of the playing surface, said bumper having a convexly curved inwardly facing edge adjacent to and projecting inwardly from the rail, said bumper edge having a resilient surface positioned inwardly from the rail a distance less than half the height of the rail.

2. A pool table comprising a flat playing surface, a rail about the playing surface having an inner concavely curvilinear cushion forming the perimeter of the playing surface, a ball pocket in the playing surface spaced inwardly from the rail, and a fixed bumper on the rail forming an inwardly extending convexly curved projection on an axis passing through the ball pocket.

3. The pool table of claim 2 wherein the bumper comprises a generally V-shaped frame having a first generally outwardly extending leg fixed to the rail and a downwardly and outwardly sloping inner leg with an inwardly facing convexly curved edge, and a resilient sleeve about the inner leg forming a rebounding surface.

4. A pool table comprising a flat playing surface, a rail about the playing surface having an inner concavely curvilinear cushion forming the perimeter of the playing surface, a ball pocket in the playing surface located in an axis of the table and spaced from the rail and also from the geometrical center of the playing surface, and an inwardly extending bumper on the rail located on the axis of the ball pocket but at the opposite side of the geometrical center of the playing surface, said bumper having a convexly curved resilient inwardly facing surface.

5. A pool table comprising a flat playing surface, a rail about the playing surface forming a generally elliptical perimeter about the playing surface, a ball pocket in the playing surface spaced inwardly of the rail and outwardly of the geometrical center of the playing surface and on an axis of the elliptical perimeter, and a fixed bumper adjacent to and inwardly of the rail having an inwardly facing convexly curved rebound edge symmetrically located on said axis on the opposite side of the geometrical center of the playing surface from the ball pocket.

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