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Nielsen

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[54] **POOL TABLE WITH REMOVABLE POCKET AND RAIL STRUCTURE**

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[51] **Int. Cl.**.....**A63d 15/00**

[58] **Field of Search**.....273/3 **R**, 3 C, 4 B, 273/4 C, 5 A, 5 C, 6, 7, 8, 9, 12; 161/161

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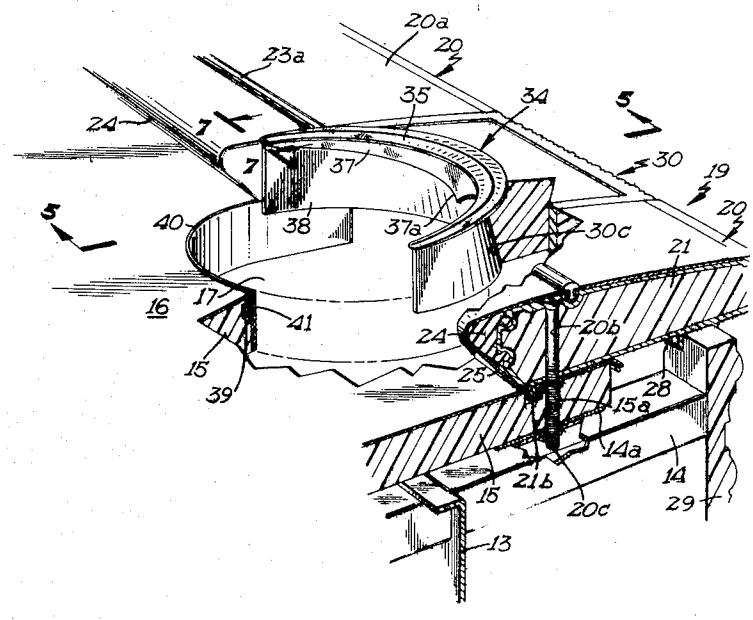
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[57] **ABSTRACT**

A pool table comprises a table top having a bed provided with side and corner pocket recesses therein. A rail and bumper structure which is secured to the pool table frame is mounted on the bed and includes a plurality of elongate rail and bumper members interconnected together by side and corner connecting members. The side and corner connecting members are provided with male socket elements which are insertable into female sockets in the rail and bumper members. Each side and corner connecting member has a deflector member thereon to facilitate deflection of a pool ball into a pocket. Each concave surface of the bed which defines a pocket recess is provided with an impact member, preferably formed of plastic, to minimize damage to the cover during rebounding of a ball prior to the ball dropping into a pocket.

9 Claims, 7 Drawing Figures



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SHEET 1 OF 2

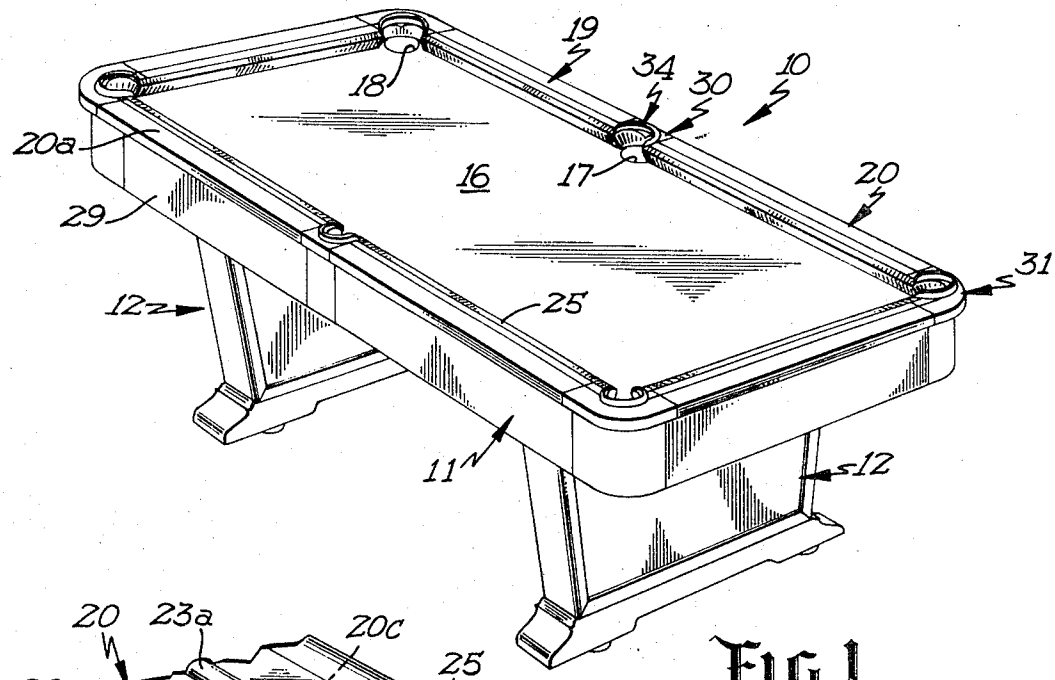


Fig 1

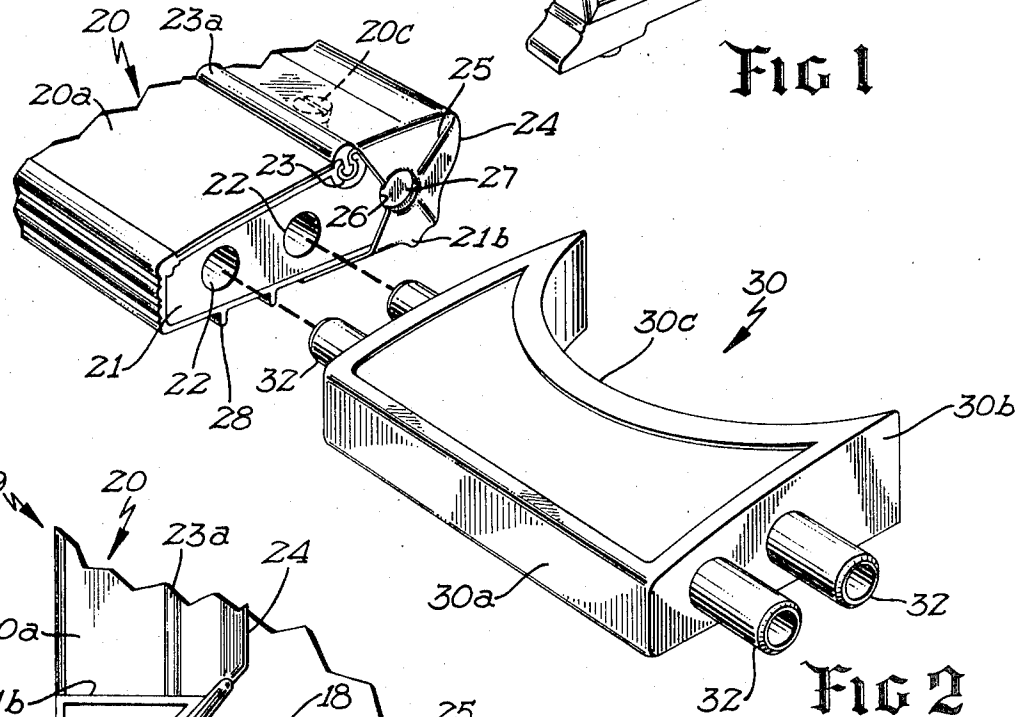


Fig 2

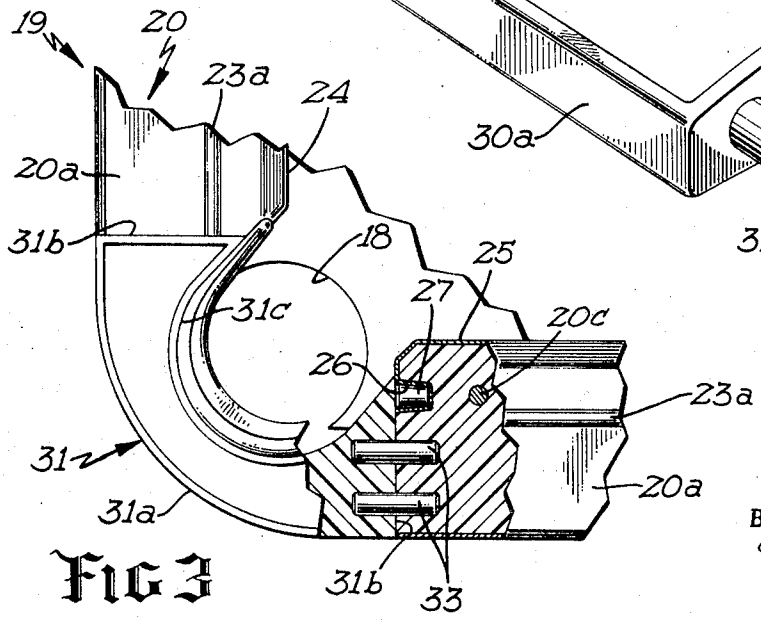


Fig 3

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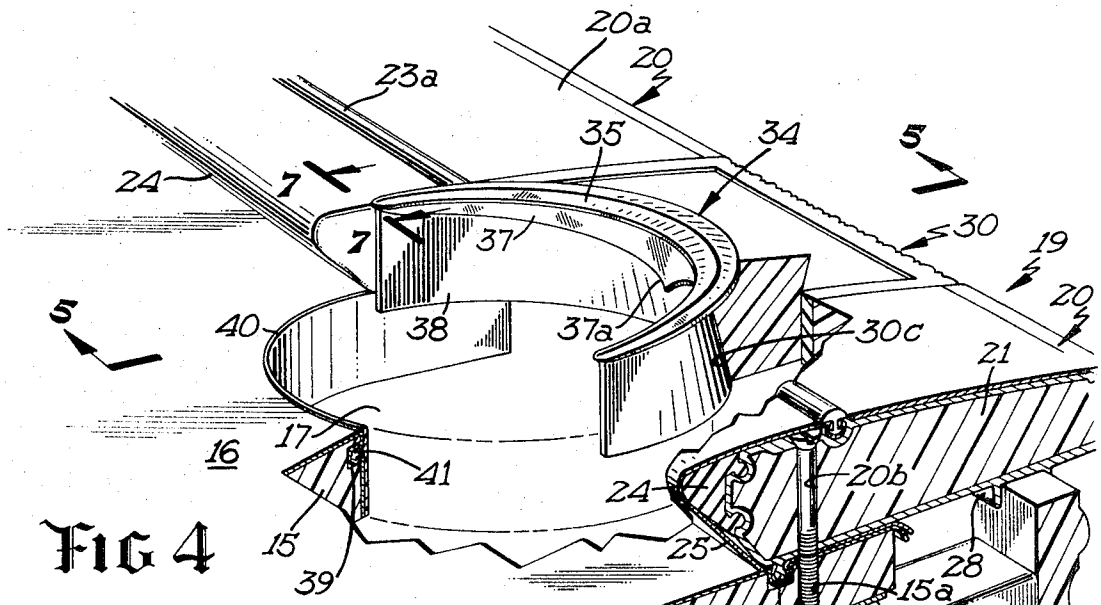


FIG 4

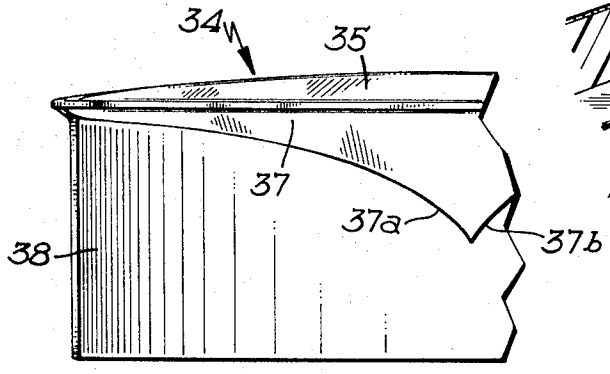


FIG 6

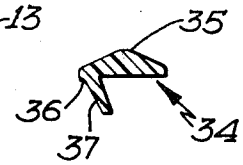


FIG 7

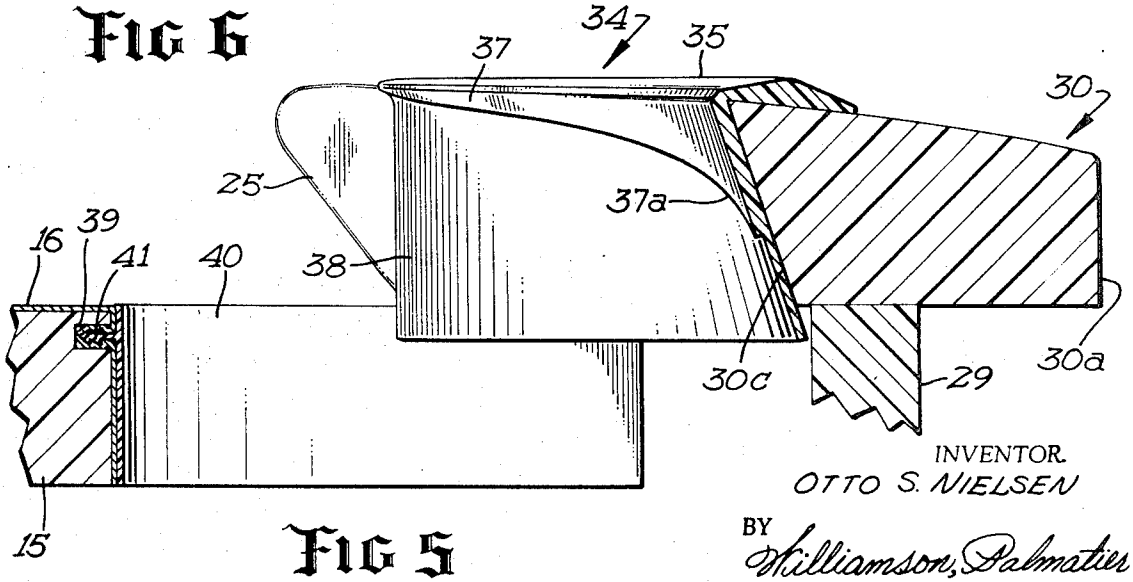


FIG 5

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POOL TABLE WITH REMOVABLE POCKET AND RAIL STRUCTURE

SUMMARY OF THE INVENTION

An object of this invention is to provide a pool table with a novel rail and bumper structure, positioned on the bed and comprised of a plurality of rail and bumper members interconnected with the corner and side connecting members by means of male and female socket elements. This arrangement not only permits ready assembly of the pool table but facilitates maintenance of the pool table, such as removal and replacement of the cover.

Another object of this invention is the provision of each corner and side connecting member with a deflector member for deflecting the pool balls into a pocket. Each corner and side connecting member cooperates with the bed to define a pocket in the pool table, and each pocket defining recess of the bed is also provided with a non-metallic, preferably plastic, impact member to minimize damage to the cover when a ball rebounds prior to dropping into a pocket. These and other objects and advantages of this invention will more fully appear from the following description made in connection with the accompanying drawings wherein like reference characters refer to the same or similar parts throughout the several views.

BRIEF DESCRIPTION OF THE FIGURES OF THE DRAWINGS

FIG. 1 is a perspective view of a novel pool table embodying the various features of the invention;

FIG. 2 is an exploded partial perspective view of the rail and bumper structure illustrating the manner in which a rail and bumper member is interconnected with a side connecting member;

FIG. 3 is a fragmentary plan view of a corner portion of the pool table with certain parts thereof broken away for clarity;

FIG. 4 is an enlarged fragmentary perspective view of a portion of the pool table with certain parts thereof broken away for clarity illustrating a side pocket and specifically the deflector member and impact member associated therewith;

FIG. 5 is a cross-sectional view taken approximately along line 5—5 of FIG. 4 and looking in the direction of the arrows;

FIG. 6 is a partial elevational view illustrating details of construction of a deflector member;

FIG. 7 is a cross-sectional view taken approximately along line 7—7 of FIG. 4 and looking in the direction of the arrows.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings and more specifically to FIG. 1, it will be seen that the novel pool table designated generally by the reference numeral 10 is there shown. The pool table 10 includes a frame 11 which is supported by suitable leg structures 12. Although the details of construction of the frame are not shown in the instant drawing, the frame member is comprised of a pair of similar longitudinal frame members 13, although only one is shown in the drawings. These longitudinal frame members are connected to a pair of transverse end frame members (not shown) and are also connected by a plurality of elongate transversely extending truss members 14 which project through

openings in the longitudinal frame members. In this regard, the frame structure is similar to that disclosed in my co-pending application, Ser. No. 774,760, filed Nov. 12, 1968, Now U.S. Pat. No. 3,584,872. However, it will be noted that the truss members in the instant application are of rectangular cross-sectional configuration while the truss members in the aforementioned copending application are of V-shaped cross-sectional configuration.

A bed 15 which is of substantially flat rectangular configuration is positioned upon the frame 11 and is provided with a fabric cover 16. It will be noted that each truss member has a plurality of spaced apart spacer elements 14a as best seen in FIG. 4 positioned thereon, preferably formed of metal, upon which the bed is supported. The bed has a pair of arcuate side pocket recesses 17 and four corner pocket recesses 18, the latter located adjacent the respective corners. The bed 15 also has a plurality of spaced apart apertures 15*a* therein, as best seen in FIG. 4, the function of which will be described more fully hereinbelow.

A generally rectangular shaped rail and bumper structure 19 is positioned upon the bed 15 around the periphery thereof and is comprised of a plurality of substantially identical rail and bumper members 20. Each of these members 20 is formed of a rigid material, preferably extruded aluminum, and is provided with a foam plastic core 21. Opposite ends of the foam plastic core are each provided with a pair of laterally spaced apart female sockets 22, as best seen in FIGS. 2 and 3.

Each rail and bumper member has an elongate slot 23 in the upper surface thereof throughout the length thereof. Each rail and bumper member is also provided with a bumper 24 which is preferably formed of a yieldable material such as rubber and which is secured to its associated rail member by a frictional snap coupling male and female elements (not shown) in the manner of my co-pending application, Ser. No. 774,760, filed Nov. 12, 1968.

Each rail and bumper member is also provided with a downwardly projecting element 21*b*, FIG. 4, which engages in a slot in the bed to clamp the cover to the bed. Each rail and bumper member is also provided with a bumper cover 25 which extends over and covers the inner surface portion of the rail and bumper member, as best seen in FIG. 2. An elongate anchor member 23*a* formed of rubber is urged into the slot 23 in each rail and bumper member to clamp the cover therein. A non-metallic preferably plastic elongate substantially flat insert panel 20*a* is positioned upon the upper surface of each rail and bumper member between the anchor elements 23*a* and the outer edge portion of each rail and bumper member. This panel is primarily for decorative purposes. It will further be noted that each rail and bumper member has a recess 26 located at opposite end portions thereof, and this recess also receives folded end portions of the bumper cover therein which is held in place by plugs 27 which may be formed of a non-metallic material such as plastic. The bumper cover 25 is preferably formed of fabric in the manner of the cover 16 for the bed 15.

Referring again to FIG. 2, it will be seen that each rail and bumper member 20 is provided with downwardly projecting spaced apart longitudinally extending positioning elements 28 which define a channel that engages the upper edges of vertically oriented side panels 29. It will also be seen that each of the rail and bumper

members **20** has a plurality of vertically oriented apertures **20***b* therein which are disposed in registering relation with certain of the apertures **15**a in the bed **15**, as best seen in FIG. **4**. Elongate threaded bolts **20***c* extend through the apertures **15***a* and **20***b* and threadedly engage openings in the truss members **14** to clamp the rail and bumper structure, as well as the bed, on the frame members **13**.

The rail and bumper structure **19** also includes a pair of substantially identical side connecting members **30** and four corner connecting members **31**, these connecting members being interposed between and interconnected with adjacent rail and bumper members **20**. In this regard, it will be seen that the side connecting members **30** each has a substantially straight outer side edge **30***a*, substantially flat end edges **30***b* and a concave inner side edge portion **30***c*. Similarly, each corner connecting member is provided with a curved outer side edge portion **31***a*, substantially flat straight end edges **31**b and curved arcuate inner side edge portions **30***c*. The side connecting members **30** have a pair of male socket elements **32** projecting outwardly from opposite end portions thereof, while the corner connecting members **31** also has a pair of male socket elements **33** projecting outwardly from opposite ends thereof. These male socket elements engage in the female socket elements in the adjacent ends of the adjacent rail and bumper members **20**. With this arrangement, the rail and bumper members may be readily interconnected together and assembled to form the rail and bumper structure.

When the rail and bumper members are interconnected to the side and corner connecting members, the upper surfaces thereof are disposed in substantially coplanar relation, as well as the outer edge portions thereof. The concave vertically inclined inner side edge portions of the corner and side pocket members cooperate with the recesses in the bed to define the pockets for the pool table. These concave inner side portions of the connecting members are actually inclined downwardly and outwardly as best seen in FIG. **4**.

Each side and corner connecting member is provided with a deflector member **34** which is preferably formed of a yieldable material, such as rubber, and which is secured to the inner concave pocket defining edge portion thereof. In this regard, each deflector member **34** associated with each side connecting member is secured to the concave inner side edge portion **30***c* thereof, while each deflector member **34** associated with each corner connecting member is secured to the concave inner side edge portion **31**c thereof. Each deflector member **34** is comprised of a horizontally oriented arcuate upper portion **35** which is positioned upon and secured to the upper edge of the associated connecting member. The horizontal upper portion **35** of each deflector member projects inwardly beyond a vertical arcuate portion **37** thereof to define a lip **36** which is of arcuate configuration.

The vertical arcuate portion **37** is positioned against the inner concave inclined edge portion of the associated connecting member and is integrally formed with a skirt **38** which depends therefrom. In this regard, the vertical arcuate portion **37** only covers a portion of the concave inner sides of the associated connecting member while the skirt **38** covers the remaining portion thereof. These deflector members **34** may be secured to their associated connecting member by any suitable securing means such as an adhesive or the like.

Each vertical arcuate portion **37** of each deflector member has an elongate lower deflector edge portion **37***a* and an elongate lower deflector edge portion **37***b*, these portions each extending arcuately inwardly from one end of the deflector member downwardly towards each other to converge at a point. With this arrangement, a pool ball which is impelled towards a pocket will first engage the lip of the associated deflector member and will thereafter engage one of the deflector edge portions **37***a* and **37***b* so that the ball will be deflected downwardly, rather than rebounding outwardly from the pocket.

Each pocket recess in the bed is also provided with an impact member to minimize damage to the fabric cover **16** for the bed when a pool ball rebounds from the arcuate portion of the connecting member after striking the connecting member. In this regard, it will be seen that each concave portion of the bed which defines a side pocket recess **17** or a corner pocket recess **18** has an elongate arcuate outwardly facing slot **39** therein, as best seen in FIGS. **4** and **5**. It will be noted that these slots **39** for the pocket defining recesses **17** or **18** in the bed are located below the upper surface of the bed **15**. An arcuate, vertically oriented impact member **40**, preferably formed of a non-metallic material, such as plastic or the like, is provided with an elongate arcuate bead or male socket element **41**. This male socket element for each impact member is urged into the associated arcuate slot **39** with frictional snap coupling effect to secure the impact member against the vertical surface defined in the pocket recess, as clearly shown in FIGS. **4** and **5**. With this arrangement, the impact member is secured to the bed and provides an impact surface for the pool ball when the pool ball rebounds from the opposite arcuate surface of the connecting member. This impact member also serves to hold the fabric cover **16** for the bed **15** by engaging the cover and urging the same into the associated arcuate slot **39**. Thus, the impact member **40** for each pocket not only protects the cover against damage by the rebounding pool ball but also serves as a means for securing the cover to the bed.

It will be seen from the preceding paragraphs that I have provided a novel pool table in which the rail and bumper structure is not only uniquely mounted on the frame for the pool table, but is also comprised of uniquely interconnected rail and bumper members so that assembly and maintenance of the pool table is facilitated. The novel rail and bumper structure is so arranged and constructed to permit ready removal of the bed and rail and bumper structure with a minimum of effort and without requiring complete disassembly of the pool table.

The rail and bumper members for the rail and bumper structure are releasably interconnected to side and corner connecting members by means of male and female coupling elements. This provides a simple but very effective means of interconnecting the various components of the rail and bumper structure. Further, it will be noted that the pocket defining side and corner connecting members are provided with deflector members that facilitate downward deflection of the pool balls into the pockets. The pocket defining recesses in the bed are provided with impact members which not only serve to minimize damage to the fabric cover for

the bed but also serve to anchor the fabric cover to the bed.

Thus it will be seen that I have provided a novel pool table which is not only of simple and inexpensive construction, but one which has more advantageous features than any heretofore known comparable pool table structure.

What is claimed is:

1. A pool table comprising

a metallic frame having leg means secured thereto and projecting downwardly therefrom, said frame including a pair of elongate longitudinal rigid frame members each having a plurality of openings therein,

a plurality of spaced apart elongate metallic hollow truss members each extending between said longitudinal frame members and projecting through openings therein,

a substantially flat rectangular bed having a plurality of vertically spaced apart apertures in the marginal portions thereof, said bed having a pair of opposed side pocket recesses in the longitudinal edge portions thereof, and having a plurality of corner pocket recesses in the corner portions thereof,

a continuous rail and bumper structure positioned upon said bed along the longitudinal side and transverse end portions thereof, said structure including a plurality of similar rail and bumper members each having a plurality of apertures therein, each aperture in a rail and bumper member being disposed in registering relation with an aperture in said bed,

a plurality of clamping members each extending through an opening in said rail and bumper structure and through a registering opening in the bed and being connected to one of said truss members to clamp the rail and bumper structure and bed on the frame,

said rail and bumper structure including a pair of center connecting members positioned upon said bed and each interconnecting a pair of rail and bumper members positioned along one longitudinal side of said bed,

a plurality of corner connecting members positioned upon said bed adjacent the corners thereof and interconnecting a pair of rail and bumper members positioned along a longitudinal side and a transverse end portion of the bed, each of said corner and side connecting members having a pair of male socket elements thereon projecting longitudinally outwardly from each end thereof, and each rail and bumper member having a pair of female sockets in each end thereof receiving the male socket elements from adjacent corner and side connecting members to interconnect said corner and said connecting members to said rail and bumper members,

each side and corner connecting member having a concave inner surface which cooperates with a pocket defining recess in the bed to define a pocket, an arcuate deflector member secured to the concave surface of each connecting member, each deflector member having an elongate lower edge defining a guide surface for causing a ball impelled against the deflector member to be directed downwardly through the pocket, said lower edge including a pair of elongate curved edge portions, each extending from one end of said deflector member downwardly and inwardly and converging with said other edge portion to form a point therewith.

2. The pool table as defined in claim 1 wherein each deflector member includes a horizontal portion affixed to the upper surface of each connecting member, and a vertical portion integral with said horizontal portion and affixed to the concave side of the associated connecting member, a lip projecting outwardly from said horizontal portion and overlying the vertical portion of the associated deflector member, said lip cooperating with said lower edge guide surface to impell a ball downwardly.

3. The pool table as defined in claim 1 wherein each rail and bumper member includes an outer shell formed of metal, and a core formed of a foamed material.

4. A pool table comprising

a metallic frame having leg means secured thereto and projecting downwardly therefrom,

a substantially flat rectangular bed mounted on said frame, said bed having a pair of opposed side pocket recesses in the longitudinal edge portions thereof, and having a plurality of corner pocket recesses in the corner portions thereof,

a continuous rail and bumper structure positioned upon said bed along the longitudinal side and transverse end portions thereof,

a plurality of clamping members clamping the rail and bumper structure and bed on the frame,

said rail and bumper structure including corner and side pocket recesses each defined by generally vertically oriented recessed surfaces, each side pocket recess in the rail and bumper structure cooperating with a side pocket recess in the bed to define a side pocket, and each corner pocket recess in each rail and bumper structure cooperating with each corner pocket recess in the bed to define a corner pocket,

an arcuate deflector member secured to the concave surface defining each pocket recess in the rail and bumper structure, each deflector member having an elongate lower edge defining a pair of elongate curved edge portions for causing a ball impelled against the deflector member to be directed downwardly through the pocket, each edge portion extending from one end of said deflector member downwardly and inwardly and converging with the other edge portion to define a point therewith.

5. The pool table as defined in claim 4 wherein each deflector member includes a horizontal portion affixed to the upper surface of the rail and bumper structure adjacent the associated pocket defining recess therein, and a vertical portion integral with said horizontal portion and affixed to the concave surface defining the associated pocket defining recess, a lip projecting downwardly from said horizontal portion and overlying the vertical portion of the associated deflector member, said lip cooperating with said lower edge guide portions to impell a ball downwardly.

6. The pool table as defined in claim 4 wherein each of said side and corner pocket recesses of the bed is of concave arcuate configuration and is generally vertically oriented, each of said recesses having an elongate arcuate slot therein, a plurality of impact members each being of arcuate configuration and each being formed of non-metallic material, each of said impact members having an elongate arcuate male socket ele-

ment affixed thereto and projecting therefrom, and extending into an arcuate slot with frictional snap coupling effect in one of said pocket recesses to secure the impact member to the arcuate concave pocket recess surface and to completely cover the latter.

7. The pool table as defined in claim **1** wherein each rail and bumper member has an upper wall, a lower wall, spaced apart inner and outer walls, and end walls, each rail and bumper member having a flexible cover covering the inner side wall, the end walls, and covering a portion of the upper and lower walls, the upper wall having an elongate recess therein receiving a marginal portion of the flexible cover therein and a flexible anchor element for each rail and bumper member formed of yieldable material and snugly positioned within the recess of the associated rail and bumper member to anchor the marginal portion of the cover therein.

8. The pool table as defined in claim **7** wherein each end wall of each rail and bumper member has a recess therein, that portion of the cover for each rail and bumper member covering the end wall being folded and urged into the recess, and a plurality of plug elements each being urged into the recess in an end wall of a rail and bumper member to clamp the cover to each end wall.

9. A pool table comprising

a metallic frame having leg means secured thereto and projecting downwardly therefrom, said frame including a pair of elongate longitudinal rigid frame members each having a plurality of openings therein,

a plurality of spaced apart elongate metallic hollow truss members each extending between said longitudinal frame members and projecting through openings therein,

a substantially flat rectangular bed having a plurality of vertically spaced apart apertures in the marginal portions thereof, said bed having a pair of opposed side pocket recesses in the longitudinal edge portions thereof, and having a plurality of corner pocket recesses in the corner portions thereof,

a continuous rail and bumper structure positioned upon said bed along the longitudinal side and transverse end portions thereof, said structure including a plurality of similar rail and bumper members each having a plurality of apertures therein, each aperture in a rail and bumper member being disposed in registering relation with an aperture in said bed,

a plurality of clamping members each extending through an opening in said rail and bumper structure and through a registering opening in the bed and being connected to one of said truss members to clamp the rail and bumper structure and bed on the frame,

said rail and bumper structure including a pair of center connecting members positioned upon said bed and each interconnecting a pair of rail and bumper members positioned along one longitudinal side of said bed,

a plurality of corner connecting members positioned upon said bed adjacent the corners thereof and interconnecting a pair of rail and bumper members positioned along a longitudinal side and a transverse end portion of the bed, each of said corner and side connecting members having a pair of male socket elements thereon projecting longitudinally outwardly from each end thereof, and each rail and bumper member having a pair of female sockets in each end thereof receiving the male socket elements from adjacent corner and side connecting members to interconnect said corner and side connecting members to said rail and bumper members,

each of said side and corner pocket recesses of the bed is of concave arcuate configuration and is generally vertically oriented, each of said recesses having an elongate arcuate slot therein, a plurality of impact members each being of arcuate configuration and each being formed of non-metallic material, each of said impact members having an elongate arcuate male socket element affixed thereto and projecting therefrom, and extending into an arcuate slot with frictional snap coupling effect in one of said pocket recesses to secure the impact member to the arcuate concave pocket recess surface and to completely cover the latter.

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